## REPORT

## OF THE

## Minister of Agriculture

OF THE

## PROVINCE OF QUEBEC

1901


QUEBEC
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1902

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Quebec, 1st February, 1902.
The Honorable Sir LOUIS A. JETTE, Knight-Commander of the Most Dis-
tinguished Order of St. Michael and St George, Lieutenant-Governor

## of the Province of Quebec.

May it please Your Honor :
In laying before you the report of the operations of the Department of Agriculture for the fiscal year 1900-1901, I have the honor to supplement with a few remarks the differents documents contained therein.

The great development which the dairy industry has assumed in this province within a few years and the obligation, which is becoming more and more pressing, of perfecting its products intended for exportation, in view of the constantly growing competition upon which we must reckon, has necessitated the appointment of an increased number of inspectors to visit the factories during the course of each summer. On reference to the reports of these officers, it will be seen that they have noted a constant improvement in the processes of manufacture, but that they are almost unan* imous in stating that the patrons of the factories are far from bestowing upon the handling of the milk the requisite care to assure the making of first quality products. There has, however, been an improvement in this respect and the numerous lectures which the Department of Agriculture has caused to be given on the subject, together with the teaching of the inspectors, should before long lead to the disappearance of this defect which constitutes the chief obstacle to our putting on the market unobjectionable products.

The policy inaugurated two years since of granting special premiums for the improvement of the cheese factories is being more and more appreciated by the proprietors of such establishments. From the 1st July last to the present date, the Department of Agriculture has already disbursed in premiums of $\$ 100$ and $\$ 150$ a sum of upwards of $\$ 5,000$ and as a large number of the proprietors have informed the department of ther intention to add curing rooms to their factories according to the department's
specifications, it is presumable that in the course of the actual fiscal year the amount which the Government will be called upon to pay for this object will much exceed the figure of $\$ 6,000$.

The number of farmers' clubs has again increased since last year. The last report of the Department of Agriculture showed that there were then 530 of these clubs and this year they number 543.

In all the counties, competitions in dairy cows were organized either under the control of the agricultural societies or under that of the farmers' clubs with the aid of the special grant made by the Department of Agriculture for the purpose. These competitions are growing more and more in favor and. according to the reports sent in, produce excellent results by impressing the farmers with the importance of raising good dairy breeds and the selection of the best animals in each herd.

The great competition organized at Buffalo during the Exhibition held there last summer emphasized in a very marked way the good qualities of the Canadian milch cows. It is therefore of the utmost importance for breeders of these animals to practise with greater care than ever the judicious selection of the best types, which are becoming more and more popular not only in this province, but in Ontario and even in the United States.

The establishment of experimental fruit stations has been quite a revelation as regards the possibilities of fruit growing in regions where this culture has been hitherto unknown. The actual stations were created for a period of five years, which expires this year. The Department of Agriculture is now studying the topography of the different rural counties of the province with the view to a new distribution of these stations for the next five years dating from 1903.

The new regulations adopted by the Council of Agriculture to facilitate the purchase of sires of the different breeds of domestic animals have been accepted with the greatest good will by a large number of the agricultural societies, which, in their programme for this year, have agreed to apply to that object a part of the grant to which they are respectively entitled.

Horse breeding in particular, which for many years had been completely neglected owing to the low price of horses, rendering that branch of agricultural industry rather onerous than profitable, promises to be carried on in the future under absolutely different conditions owing to the orders which the Imperial Government intends to have filled in this country for its army remounts. It is much to be regretted, however, that the type of horse generally bred in this province is far from meeting the requirements of this new trade, which is a reason why the agricultural institutions subsidized by the Government should concentrate all their efforts upon the constant improvement of our breeds of horses.

As already stated, a goodly number of the agricultural societies have grasped this serious question and it is to be hoped that their example will be largely followed by our agricultural associations in the interest of agriculture.

On reference to the report of the Provincial Road Inspector, it will be observed that the good roads policy inaugurated by the Government in 1897 has produced unexpected results in awakening our rural population to the importance of the much neglected question of road improvement and in a good many counties they have eren begun to macadamize the principal avenues of communication.

In order to afford an opportunity to the farmers in our rural counties to personally realize the utility of the special implements for stone breaking and road macadamizing, the Government has purchased sereral machines which it places gratuitously for a limited time at the disposal of the counties applying therefor. Already several municipalities, which have used these machines, have since then purchased them at their own cost, after testing them for a certain time and thus ascertaining their usefulness. Consequently, the Department of Agriculture proposes to follow up this policy, the timeliness and importance of which are unquestionable.

The whole respectfully submitted,

## F.-G. MIVILLE-DFCHENE, <br> Minister of Agriculture.

## OFFICERS OF THE DEPARTMENT OF AGRICULTURE

The Hon. F. G. MIVILLE-DECHENE, Minister.
Mr. G. A. GIGAULT, Deputy-Minister.
Mr. S. SYLFESTRE, Secretary.
Mr. A. M. F. d'ESCHAMBAULT, Accountant.
Mr. J.-A. PAQUET, Assistant-Accountant.
Mr. OCT. DEMERS, Registrar.
Mr. EDOUARD FAFARD, Asst.-Registrar.
Mr. OCT. OUELLETTE, Secr. Council of Agriculture.
Messrs. J. E. LEULERC, OSCAR LESSARD, ARTHUR LAROE, Clerks.

Dr. WILFRID GRIGNON, Lecturer, Ste. Adèle, Co. Terrebonne.
Mr. O. E. DALAIRE, Lecturer, Ste. Rose, Co. Laval
Mr. H. NAGANT, Assistant-editor of the Journal of Agriculture and Horticulture.
J. T. LAMB, F. X. BILODEAU, Messengers.

## REPORT

OF THE

## AGRIGULITURAL SGHOOL

## OF

## SAINTE-ANNE DE LA POCATIERE

## FOR THE YEAR 1900-190i

To the Honorable F. G. M. Dechene, Commissioner of Agriculture, Quebec.
Sir,
I have the honor to submit the report of the Agricultural School of Ste. Anne de la Pocatiere for the year ending 30th. June 1901.

## Students.

Thirty-three students attended the School this year. As in prerious years, their time was divided between study, lessons and manual labor. They seem to understand and appreciate the exceptional adrantages which they enjoy for the study of agriculture in theory and practice, and I am happy to be able to bear testimony to their good conduct and application.

## List of students during the fear 1900-1901.

| NAMES | RESIDENCE | DATE OF LEAVING |
| :---: | :---: | :---: |
| Albert Taschereau................ ........ | St-Pierre-de-Broughton .............. | 1st August, 1900. |
| Aimé Boutet........................ ........ | Beauport......... ........................ | 22 December, 1900. |
| Adolphe Lapointe. | Malbaie. | ${ }^{6}$ "، '6 |
| Samuel Létournear | Ste-Anne-des-Monts | 25 July, 1900. |
| Wilfrid Lambert | St-Josepb, Seauce........ ...... .. .. | 22 December, 1900. |
| Eugène Jalbert | Cake Bouchette....... ... ........... | 16 May, 1900. |
| J.-bite. Raymond | Ste-Anne-de-la-Pocatière........... | 1 " 1900. |
| Odilon Desjardins ......... . ............. | " 1 ........ | 22 December, 1900. |
| Léonidas taron. | St-Aubert. |  |
| Joseph Langelier. | Ste-Anne-de-la-Pocatière ............ | " " |
| Léger Vaillancourt ........................... | Quebec. |  |
| Gustave Bouchard | Mistassini | 20 December, 1900. |
| Edward O'Connor ................ ...... | Quebec | 20 June, 1901. |
| Charles Paquet......... ............. ..... | Ste-Anne-de-la-Pocatière........... | 22 December, 1900. |
| Théodore Charest...................... ... | Quebec ........ ........ ..... ..... ... |  |
| Alfred Lajnie......... ....................... | St-Pacôme | 16 November, 1900. |
| Alphonse Lindsay .......... ...... ........ | Roberral. | 22 December, 1900. |
| Adolphe Tessier | Beauport......... ........ ......... | 25 June, 1901. |
| Alfred Marois. | St-Romuald ......... ......... ..... ..... |  |
| Pierre Bégin...... | Quebec. | 22 December, 1900. |
| Thomas Marcoux | Suebrime Lac St-Jean................... |  |
| Honorat Gourdeau | Quebec |  |
| Adélard St-Pierre | Ste-Perpétue ...... |  |
| Joseph Roy........ | St-Pierre, Broughton......... ...... |  |
| Joseph Rouillard......... ........ . ....... | Qutbec......... ........ ....... .......... |  |
| Joseph Cloutier...... .............. ........ | St-Samuel ........ .......... .. ........ |  |
| Léude Giroux........ ...... ............... | Beauport.................. ......... ... |  |
| Auguste Bolduc........ | St-Michel. .... ......... ........ ..... | 1st June, 1901. |
| Armand Lyach ........ .................... | Quebec........ ....... .. . .......... |  |
| Alphonse Pradis................ ........ | St-Sćbastien, Beauce................. |  |
| Adderville Dallaire......... | St-Samuel ......... . ........ ...... ...... |  |

## THEORETICAL INSTRUCTION

Elements of Agricultural Chemistry: Matter-bodies. - Solid, liquid, gaseous bodies-Simple bodies-Compound bodies-Cohesion-Affinity-Mixture-Combination-Influences farorable to combinations-Acids-Salts-Nentral bodies.

Simple bodies: Oxygen-Hydrogen-Nitrogen-Chloride-Carbon-Phosphorus-Sulphur - Silicon-Calcium - Potassium -- Aluminium -Magnesium-Iron.

Compound bodies: Carbonic Acid. - Sulphuric Acid. - Silicic Acid -

Nitric Acid.-Chlorhydric Acid.-Lime.-Potash.-Alumina.-Magnesia. -Ammonia.-Oxide of Iron.-Water. - Chloride of Sodium.

Atmospheric : Air.-Composition.--Physical and chemical properties.Effect of the electric spark on oxygen.-Clouds.-Rain.-Snow.-Dew.

Plants : Principal parts of the plant. - Germination. - Nutrition. -Respiration.-Transpiration.-Whence and how plants absorb the sabstances of which they are composed.-Conditions of absorption.

Formation of Soils : How arable lands are formed.-Soil.-Sub-soil.Influence of the sub-soil on the soil.-Clay soils, sandy, calcareous, humus, alluvium.- Physical properties of soils.- Nitrification.- What favours nitrification.-Improrements and fertilizers.

Drainage: Reasons for drainage.-Ditches.-Trenches.-Furrows.-Drainage.-When drainage is necessary.-Different methods of draining. -Effects of drainage

Mellowing the Soil: Reasons.-Principal works to that end.-Ploughing - Conditions of good ploughing. - Ordinary sub-soil and superficia ploughing.-Qualities of a good plough.-Various implements.-Harrow-ing.-Rolling.

Manuring : Elements to be given or restored to the soil. - Barnỵard manure.-Principles to be observed in keeping and making a proper use of manure.-Litters.-Tanks for liquid manure.-Composts.

Various M:nures: Guanos.- Dried and pounded bones. - Tannery refuse.-Soap-boiling refuse.-Dead animals.-Wood ashes.-Soot.-Sea-weed.-Horns.-Hair.-Vegetable manures.-Nitrate of soda.—Sulphate. of ammonia. - Nitrate of potash. -Muriate of potash.-Superphosphate.-Lime.-Marl.-Plaster.

Cleaning the Soil: Clearing.-Stoning. - Fallow.-Tarning in the stabble.-Hoeing.-Smothering crops.-Rotation.

Seeding : Importance of proper seeding.-Preparation of seed grain.-

Proper covering up of seeds.-Conditions favorable to proper germination.

Various Crops : Wheat.-Barley - Oats. - Buckwheat.-Potatoes. Indian corn.-Beans.-Root plants.-Tobacco.

Fodder Plants : Timothy. - Red-top. - Rye-grass. - Brome-grass. -Orchard-grass.-Fescue. - Meadow-grass.-Lupin.-Clover. - Sainfoin.-Fox-tail grass.-Sunflowers.- Care to be given to meadows and pastures. -Hay-making.-Green fodder.-Ensilage and silos.

Raising of Cattle : Breeding.-Principles.-Improvement of breeds.Choice of Sires-Horses.-Horned Cattle.-Pigs.—Sheep.-Poultry.

Feeding of Cattle : Rations for maintenance ; for production.-Proportionate rations for maintenance.-Alimentary principles.-Principles of rations. - Variability of composition, of preservation and of digestibility of fodders.-Beverages.

Concentrated production : How to increase consumption.-How to facilitate digestion.-How to hasten absorption.-How to promote assimila-tion.-Milk production.-Meat production.-Fattening of swine.-Butter and cheese.-Ice-House.-Lessons in arithmetic. -Farm book-keeping.

Fruit-tree (ulture: Choice of plants.-Selection and preparation of the soil.-Care after planting.-Apple, plum, cherry, strawberry, raspberry, gooseberry and currant culture.-Different diseases of fruit trees and remedies to be applied.

## PRACTICAL INSTRUCIION.

To learn the trade of the farmer, all the students under the direction of our farm foreman took part in the general work of the farm : ploughing, harrowing, seeding, rolling, feucing, ditchıng, pruning trees, carting and spreading manure, making composts, working in orchard and nursery, cultivating root-plants and tobacco, hay-making, harvesting of root-plants and other products of the farm, ensilage, care of cattle, chopping fodder,
preparing food for cattle, the proper keeping of stables, threshing and cleaning grain, preparing seed-grain, carting fire-wood, repairing harness and working vehicles, butter-making.

## Statement of expenditure of the grant

The grant of two thousand five hundred dollars received by the school from the Government this year was expended as follows:
Director and assistant-director ..... \$ 45000
Farm foreman ..... 40000
Butter-maker ..... 25000
Students' board ..... 80000
Foreman of workshop ..... 5000
Servants ..... 12500
Heating and lighting ..... 7500
Rent of buildings and land ..... 18000
Water ..... $20 \quad 00$
Linen, washing and repairs ..... 11000
News-papers and printing ..... 3000

## Farm.

| Meadows. | 230 | arpents. |
| :---: | :---: | :---: |
| Wheat | 8 | " |
| Barley ......... ........ .......... ......... ...... .... :.... | 3 | " |
| Peas......... ......... ........ ...... ........ ..... ........ | $2 \frac{1}{2}$ | " |
| Oats | 72 | " |
| Green fodder (lentils, horse-beans, Indian-corn). | 8 | " |
| Potatoes .................... ...... ..... .... .... ....... | 10즌 | " |
| Kitchen garden, tobacco and various root-plants | 5 |  |

## RESULTS OBTAINED.

Hay 39,000 bundles
Wheat 240 bushels.
Barley ..... 66
Peas48
Oats ..... 1,950
Green Fodders ..... 100 tons.
Potatoes ..... 1,400 bushels.
Root plants ..... 1,600
Onions ..... 30
Tomatoes ..... 10
Leeks ..... 500 lbs.
Pumpkins ..... 1,500
Parsley, Chervil. \&c ..... 325
Celery ..... 150
Tobacco ..... 60
Cabbage ..... 2,000
Fruits 500 gallons.
FARM STOCK.
Horses.
A Percberon mare.-Two half-bred mares.-Ten Canadian horses.-A two year old filly.-A yearling colt.-Two yearling fillies.
Horned Cattle.
Thoroughbred Ayrshires Cows ..... 691
2 year old heifers..... 13 ${ }^{1}$ Bulls $\left.\quad . . . .{ }_{3}^{6}\right\}$
Yearling calves....... 14-
Canadian cows ..... 3
Grade cows ..... 5
113
Swine.
Thoroughbred Berkshires Boars ..... 3
" Sows ..... 8
" " Porklings ..... 15
Chester White Boar ..... 1
" ............................................ Sows ..... 2
Yorkshire Boar ..... 1
Mixed breeds ..... 75
106
Sheep.
Thoroughbred Cotswolds Rams ..... 2
Ewes ..... 10

Shropshire

Shropshire
Rams
Rams ..... 1 ..... 1
Ewes
Ewes ..... 7 ..... 7

## Experiments

We made experiments this year in the cultivation of barley with different chemical fertilizers and barnyard manure. The soil chosen for these experiments was a sandy clay, of average richness which bore a crop of oats last year.

We divided a certain part of the field into eight parcels or plots of 240 square feet each, and each having a numbered picket.

The superphosphate of lime and the chloride of potassium were applied on the 25th. May, immediately followed by a harrowing. The seeding was done on the 20th. June. The nitrate of soda and barnyard mauure were applied and turned only after the last harrowing. The manures were distributed as follows :

Plot No. 1, the test plot, receired no manure; plot No. 2 received 6 lbs of superphosphate of lime and 3 lbs of nitrate of soda; plot No. 3, $\frac{1}{2} \mathrm{lb}$. of chloride of potassium and 3 lbs of nitıate of soda; plot No. 4, $\mathbf{1}_{\frac{1}{2}} \mathrm{lb}$. of chloride of potassium and 6 lbs of superphosphate of lime; plot No. $5,1 \frac{1}{2} \mathrm{lb}$. of chloride of potassium, 6 lbs of superphosphate of lime and 3 lbs of nitrate of soda; plot No. 6, 300 lbs of barnyard manure, $1 \frac{1}{2} \mathrm{lbs}$ of chloride of potassium, 6 lbs of superphosphate of lime and 3 lbs of nitrate of soda; plot No 7, 300 lbs of barnyard manure, $1 \frac{1}{2} \mathrm{lb}$. of chloride of potassium and 6 lbs of superphosphate of lime ; and plot No. S, 300 lbs of barnyard manure.

In the fall, we separated and carefully weighed the crop from each of the plots, when the following results were obtained :

## Explanatory Table of the Above Experiments

|  | lbs | Straw and chaff. <br> $10 \frac{1}{2} \mathrm{lbs}$. | Grain. <br> Without manure. <br> Test plot. |  |
| :--- | :---: | :---: | :---: | :---: |

## Other Cultural Experiments.

1. Cultivation of wheat with superphosphate of lime.
2. Cultivation of oats with ground bones.
3. Cultivation of oats with superphosphate.
4. Cultivation of oats with ground bones and wood ashes.

These different experiments should supply us with valuable information. All the students have followed the various cultural experiments with interest and taken an active part therein.

The exhibits sent on to your department by the Agricultural School for the Paris Universal Exhibition which were prepared by the students, have won for us the honor of receiving from the Canadian Committee at that exhibition a certificate of gold medal diploma awarded to the Canadian Government for its exhibit of cereals, which certificate attests that we were among the principal exhibitors of these products.

Staff of the School.
Superior-Rer. Dominique Pelletier.
Procurator-Rer. Elzéar Dionne.
Professor-Rev. Joseph Richard.
Director-Rev. A. S. Deschènes.
Assistant-Director-Mr. Elz. Alf. Dupont, deacon.
Farm foremen-Mr. Alfred Ouellet and Mr. A. Fortin.
Butter-makers-Messrs. Eug. Jalbert and A. St-Pierre.
Foreman of workshop-Mr. Thomas Raymond.
I have the honor to be,
Sir,
Your obedient servant,
A. S. Deschenes, Priest.

## REPORT OF THE COMPTON MODEL FARM

Hon F. G. M. Déchène,
Sir,

I have the honor to submit my annual report for 1900-1901.
The first part of the month of July 1900, was so wet that hay making did not commence here until the 19th, a very late date for this part of the country. The crop was an average one but the increasing numbers of cattle made the price high.

Straw. which a few years ago was looked upon as only good for bedding, is now, I may say, entirely consumed by the cattle in conjunction with turnips and ensilage.

The cultivation of Indian corn for ensilage is increasing every year. Farmers who a few years ago told me they would not have a silo on their farms are now feeding ensilage in winter with good results and increasing the fertility of their land. Clover is also more extensively sown than in former years.

We are still in want of far larger accommodation for our crops and stock.

On the 21st November last we had a rery high wind that blew away several feet off the roof of the cow barn. I had to have it immediately repaired to prevent the hay and grain from being damaged. We should be in a position to be able to cut the straw we use for bedding, thus saving largely both in straw and manure.

My old seeder being out of date, I sold it and bought a drill seeder this spring, which I find works remarkably well on this land; we save one hill the seed, and the crop so far shows no signs of lodging, which grain is so subject to on this land.

The crop of 1900 turned out very well, the yield being an average one
with the exception of mangolds which did not do as well as usual, but the quality was good and they kept well during the winter and I was still feeding them to the cows when they were turned to pasture.

Our permanent pasture is by no means satisfactory ; it has grown to moss and should be ploughed up and part of our arable land fenced off for pasture so as to get some returns from the land.

There are several portions of arable land which require draining ; they spoil the look of the farm and the return from the land is very small; the expense of tile draining these small pieces would not be great, and would give the pupils an opportunity of seeing how the work is donc.

My garden is beginning to be productive, supplying me with asparagus, rhubarb, strawberries \&c. The orchard is also beginning to bear, a few trees having apples this year.

I would like to feed a few bullocks every winter, so as to show the pupils how to fatten cattle, but as things are at present with so limited accommodation in the barns it is impossible to do so. We have plenty of fodder.

We have had about the same number of pupils throughout the year ; in the winter we get a great many who wish to learn buttermaking, in the spring they take situations as assistant butter makers \&c., and leare us when they are getting to be of some use, and are able to earn wages.

Mr. John Ewing has given lectures throughout the year on the following subjects:-The Soils, Tillage and Underdraining, Manure and Fertilizer, Preparation of the soil for seed, Organic and Inorganic Substances defined, Composition of the Atmosphere and Water, Food for Plants and Animals, Forms, divisions and structure of Plants, Restoration of exhausted soils, Animals and artificial fertilizers, Vegetable and mineral fertilizers, Subsoiling, Rotation of crops, Different breeds of animals, Plants as living things, Matter, Bodies, Solids, Liquids and Gases, Animals, the different breeds.

Mr. Ewing has also made the pupils write papers on the rarious subjects of the lectures.

The creamery has continued to run throughout the entire year, and the returns have been good. We were obliged to put in a new churn and butter worker, our old one being worn out. We find the combined churn and worker fairly satisfactory. I am told by experienced creamery men that the ordinary life of a churn and worker is three years; as ours lasted three years and a half we cannot complain. We also had to put a new floor in the separating room ; the continued use of steam and hot water to keep the floors clean wears them out.

I endeavour to keep everything in good order and up to date, as far as possible.

I have had various enquiries from different sources on cultivation of crops of all kinds. I have had much pleasure in replying to these, which I think has been appreciated.

Our experimental orchard and fruit station has got to such large proportions that we are greatly in need of a good gardener; as we have to keep the land under cultivation for a few years more, it entails a good deal of expense, especially in seasons such as this and last year; it being so wet makes it almost impossible to keep down the weeds; when seeded down to hay the expense will of course be nominal.

Last winter I drew out manure and spread it on the snow where we have ensilage corn. I continued to draw and spread until the snow got so deep I was obliged to stop. The difference in the corn crop where the manure was spread this spring and last winter is now quite perceptible, the latter being far the best. Whether the crop will ultimately be better I can only determine when it is cut this autumn ; at present it is certainly further advanced.

I will have double the quantity of hay this year that we had six years ago, with more grain and ensilage; with the small buildings we have it is impossible to get the crop in, consequently I have to stack a large proportion. I had hay over from last year, also some ensilage and could winter a good many more cattle if we had only the place to put them. I put up a small shed where we kept some 8 young cattle during the winter; they did well. It is earnestly to be hoped that a new barn will be erected
soon, as the loss sustained by stacking the crop is large over and above the expense of moving it during the winter to the barns.

A cheese factory has been built $1 \frac{1}{2}$ miles from here by a syndicate; it will take a certain proportion of the milk now brought to the creamery here.

A certain class of farmers prefer turning their milk into cheese instead of butter; there is a good deal of loss to those who have high testing butter fat cows, as the same price is paid at a cheese factory for low testing as high testing milk, which is the opposite at a creamery as patrons are paid by the butter fat.

I think, we are in need of an inspector at our creamery who might give us new ideas and keep us posted.

I herewith send statement of receipts and disbursements for year.
Respectfully submitted,
John LeMoyne,
Direclor.
Compton Model Farm, Compton

2nd., Aug., 1901.

## 1900-1901

Statement of Receipts and Disbursements of Farm, House and Creamery for year ending July 1st, 1901.

## Receipts

Farm.
Government annual grant......... ..... .................... \$ 4,500 00
Milk sent to creamery ..... 83017
Cows sold for beef ..... 22425
Pigs ..... B85 31
Total \$ 6,239 73
House.
Board-students ..... \$ 31488
Creamery.
Butter making ..... \$ 3,329 98
Tubs ..... 1340
Refrigerator bonus ..... 2500
Total ..... \$ 3,368 38
Disbursements.
Farm.
J. M. LeMoyne, principal ..... \$ 90000
E. Bjorkelunde, foreman ..... 40480
J. Loveland, teamster ..... 33000
Cattleman ..... 18750
Hired laborers ..... 33556
Feed, straw, ete ..... 1,022 72
Implements, harness, etc ..... 49056
General store bill ..... 16104
Carpenter ..... 14165
Tin and blacksmith ..... 8672 ..... 8672
Light and fuel ..... 9695
Live stock ..... 7300
Periodicals, stationery, etc ..... 6384
Freight and express ..... 6909
Postage, telephone, etc ..... 3400
Insurance ..... 1800 ..... 1800
J. Ewing, lecturer ..... 2980
Total ..... \$ 4,445 23

## House

Servants ..... \$ 50453
Groceries, etc ..... 47526
Butcher ..... 50837
Baker ..... 6516
Sundries ..... 17116
Furnishings ..... 4382
Freight and express ..... 2694
Total ..... $\$ 1,795.24$
Creamery.
H. W. Parry, buttermaker ..... \$ 50000
Assistant ..... 17755
Tubs and boxes ..... 44980
Fuel ..... 38405
Supplies, oil, etc ..... 26148
Salt ..... 7600
Repairs ..... 8265
Ice ..... 2976
Teams drawing slabs ..... 16837
Freight and express ..... 12559
Insurance ..... 12164
Rebate to Patrons ..... 39225
$\$ 2,76914$

## OKA ACRICULTURAL SCHOOL.

ANNUAL REPORT 1900-1901.

Hon. F. G. M. Déchène,
Commissioner of Agriculture, Quebec.

Sir,
I have the honor to submit the report of the Oka Agricultural School for the year 1900-1901.

## PUPILS.

61 pupils attended the School during the year ending 30th June 1901.

| NAMES AND SURNAMES. | RESIDENCE. | date of entry. |  | date of leating. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Houle Joseph | St-Jean d'Eschaillons.... | 19 July | 1898... |  | July | 1900 |
| Wadelle Char | Montreal. | 1 Angust | 1898... | 22 |  | 1900 |
| Adam Eugène | Montreal | 18 March | 1899... |  | " | 1900 |
| Bonneau Ernest.. | St-David de Levi | 9 June | 1899... |  | March | 1901 |
| Lavigne Gusta | Montreal. | 22 | 1869.. |  | P |  |
| Lemieux Armand | Montreal | 22 | 1899.. |  | March | 1901 |
| Bonneville Albert | St-Rémi | 27 | 1899... |  | February | 1901 |
| Rousseau leéonard | Thetford Mi | 28 | 1899... |  | January | 1901 |
| Fortier Georges ........ ...... ...... |  | 2 August | 1899... |  |  |  |
| Prudhomme Joseph............... | Sontrea! | 19 '6 | 1899... |  | February | 1901 |
| Bonneau Amédee | St-David de Levi | 1 September | 1899... |  | March | 1901 |
| Caseneure mage | Montreal | 6 " | 1899... |  | July | 1900 |
| Cinq-Mars Jean-Baptiste......... |  | 23 | 1899.. |  | August | 1900 |
| De Lorgeril Louis ..... ...... ...... | Cambour (France)........ | 27 " | 1899... |  | July | 1900 |
| MacDonaid George | Glengarry (Ontario) .... | 22 January | 1900... |  |  | 1900 |
| Demers Adolphe | Chapeau | 14 February | 1900... | 20 | " | 1900 |
| Demers Eugène | Pembrooke (Ontario)..... | 8 March | 1900... | 26 | " | 1900 |
| Neilson George ......... ...... .... | Deschambault...... ...... | 30 April | 1900... |  | " | 1901 |
| Caty Raoul ................. ....... | Moatreal | 3 May | 1900... |  | January | 1901 |
| Chouinard François........ ....... |  |  | 1900... |  |  |  |
| Peyrusse Léger | Lotbiniere | 16 | 1900... |  | February | 01 |
| Lespérance Benja | Montreal |  | 1900... |  | July | 1901 |
| Genest joseph |  | 20 August | 1900... |  | February | 1901 |
| Casgrain Lóonce | L'Islet. |  | 1900... |  |  |  |
| Pageau Dollard | Montreal | 23 | 1900... |  | April | 1901 |
| Beaulieu Emile | St-Jean d'therville | 13 September | 1900... |  | February | 1901 |
| Tranchemontagne Stanislas..... | Montreal | 20 | 1900... |  |  |  |
| Meunier Pardime | St-Isidore | 23 | 1900... |  | Sept | 1900 |
| Bourdua Louis | Varennes (Vercheres) | 25 | 1900... |  |  |  |
| Lebeau Edouard | St-Joseph d'Ely | 25 | 1900... |  | P |  |
| Pelletier Adélard | St-Marcel de L'Isl | 25 | 1900... |  | P |  |
| Laplante :Narza | Waterloo. | 25 | 1900... |  | Dec. | 1900 |
| Marien Josépha | St-Henri de Mascou | 25 | 1900... |  | April | 1901 |
| Morin Arthur | St-Jean de Matha.. | 26 | $1900 . .$. |  | P |  |
| Robert Joseph. | St-Bruno | 26 | 1900... |  | Dec. | 1900 |
| Sénécal Adalbert |  | 26 | 1900... |  | October | 1900 |
| L'Hérault Joseph................... | St-Valerien | 26 | 1900... |  | Dec. | 1900 |
| Cherrier Edmond ......... ........ | Rigaud.. | 27 | 1900... |  | Nov. | 1900 |
| Lunny John | Montreal ... | 27 | 1900... |  |  |  |
| Lazure Emile | Paquetteville (Compton) | 27 | $1900 .$. |  | anuary | 1901 |
| Allard Jacob | Maria (Bonaventure)..... | 28 | 1900... |  |  |  |
| Lecours Joseph | Ste-Cécile de Milton | 3 October | 1900... |  | October | 1900 |
| Casgrain Alphonse | L'Islet.0 | 12 | 1900... |  |  | 1900 |
| Robert Joseph | Boucherville. | 13 | 1900... |  | Dec. | 1900 |
| Halley Adolphe | St-David de Lévis.. | 13 | 1900... |  | February | 1901 |
| Bolduc Auguste | -t-Michel de Bellechasse | 5 Norember | 1900... |  | January | 1901 |
| Dupuis Hyacinthe ................. | La Prairie........ | 20 | 1900... | 16 |  | 1901 |
| Du Réau Paul. | Beaupréau (France) | 1 December | 1900... |  |  |  |
| Laroque Réné. | Montreal | 14 January | 1901... |  | March | 1901 |
| Savary Charles | Ottawa ........ ........ .... | 8 December | 1901... |  | P |  |
| Morin Honoré | St-Henri de Mascouche | 22. January | 1901... |  | P |  |
| Prévost Alphon | Sorel | 23 | 1901... |  | P |  |
| Denis Albert................... ..... | Waterloo | 10 February | 1901... |  | P |  |
| Chaput Gaston......... .... ....... | Montreal | 28 | 1901... |  | P |  |
| Duchesneau R ${ }^{\text {cmégil }}$ |  | 22 March | 1901... |  | P |  |
| Deserres Adrien | - " ........ | 11 May | 1901... |  | P |  |
| Mabin Joseph | Pori-Joli (L'Islet) | 22 | 1901... |  | P |  |
| De Itorimier Rodolphe | Oka | 22 | 1901... |  | P |  |
| Belanger Antoni | Montre | 29 | 1901... |  | P |  |
| Johnston John | Sorel |  | 1901... |  | June | 1901 |
| Caiaphar Pierr | Montr | 23 ,' | 1901 |  | P |  |

23 young men were present on the 30 th June.

## Farm

The farm comprises:

| Of timber. |  | Acres |
| :---: | :---: | :---: |
| In course of clearing | 306 | ، |
| Under field culture | 381 | " |
| In rinevard, kitchen-garden, orchard and nursery $\qquad$ | 52 | " |
| Total.............................. | 1029 | " |

The different crops during the year were as follows:

| Oats. | 106 Acres |
| :---: | :---: |
| Indian Corn | 20 " |
| Buckwheat. | 10 " |
| Barley......... | 6 |
| Potatoes | 10 " |
| Swedish turnips.. | 3 |
| Beans... | 10 |
| Onions.. | 3 " |
| Asparagus... | 1 " |

The cow stables contain :
Jersey breed: Cows............ 5 5

$7 \quad 7$
Canadian Breed : $\quad\left\{\begin{array}{llr}\text { Cows............... } & 15 \\ \text { Heifers........... } & 8 \\ \text { Calves............ } & 6 \\ \text { Bull .............. } & 1\end{array}\right.$
$30 \quad 30$
Ayrshire Breed : $\quad\left\{\begin{array}{l}\text { Heifers.. ......... } \\ \text { Calves...... } \\ \text { Culls ................. } \\ \text { B }\end{array}\right.$
Grade : $\quad \begin{cases}\text { Cows } . . . . . . . . . . . ~ & 18 \\ \text { Heifers.......... } & 40 \\ \text { Calves........... } & 35\end{cases}$
$154 \quad 154$

Total: Cattle................... 208
The horse stables actually accommodate :

| Percherons: | $\left\{\begin{array}{l}\text { Stallion ........... } \\ \text { Mares........... } \\ \text { Filly ........... }\end{array}\right.$ | 1 3 1 |  |
| :---: | :---: | :---: | :---: |
|  |  | 5 | 5 |
| Grades: | $\left\{\begin{array}{l}\text { Horses ........... } \\ \text { Colts........... }\end{array}\right.$ | 12 4 |  |
|  |  | 16 | 16 |
|  | Total, horses................... |  | 21 |

In the piggery are :
Berkshire Breed: $\left\{\begin{array}{l}\text { Boar. } \\ \text { Sows }\end{array}\right.$ ..... 1
(Shoats ..... 33
52 ..... 52
Yorkshire Breed:
Boar ..... 1
Sows. ..... 8
Shoats ..... 43
Chester White Breed: Sows ..... 1
Shoats ..... 42
52 ..... 52
Grade animals ..... 89
Total, Swine ..... 245
In the sheepfold there are :
Shropshire Breed:
(Rams. ..... 5
Ewes. ..... 50
Young Rams ..... 19
Ewe Lambs ..... 18
92 ..... 92
Grade animals: $\begin{cases}\text { Ewes ............... } & 25 \\ \text { Ewe Lambs..... } & 11 \\ \text { Young Rams.... } & 14\end{cases}$ ..... 50 ..... 50
Total, Sheep ..... 142
The poultry-house contains:
Geese ..... 13
Turkeys ..... 52
Fowls ..... 350

The apiary contains 120 hives.

## THEORETICAL INSTRUCTION

The theoretical course covers three years and comprises :

1. Agriculture in all its branches.
2. The dairy industry (milk, butter, cheese).
3. Apiculture.
4. The elements of botany with extended details respecting plants generally cultivated and those noxious to agriculture.
5. The elements of zoology applied especially to farm stock.
6. Agricultural book keeping.
7. Wine and cider making.

We deem it needless to here reproduce the detailed programme of the courses, which appeared in the reports for 1897-98 and 1898-99.

Each item of the programme is developed daily in class by the professor and the students, after class, receive an autographic summary of the subjects treated.

They learn the substance of these summaries and have to answer the questions relating thereto.

The entirety of the courses forms, in autography, three volumes of five to six hundred pages each.

## PRACTICAL INSTRUCTION

During their attendance at the school, the students must be successively attached to the different departments of the farm to acquire the practical knowledge which every good farmer should possess and they take part in the different works.

This year, five of our young people devoted themselres specially to kitchen-gardening.

Four others, anxious to become butter and cheese makers later on, were attached almost exclusively to the creamery.

I have the honor to be, Your respectful and devoted servant, For the Revd. Father Abbot, G. BORON, Professor of the School.

## URSULINE MONASTERY, ROBERVAL

To the Honorable Minister of Agriculture, Quebec.
Sir,
The annual report of the farm of the Ursulines at Roberval and of their school of house-keeping, which I have the honor to submit for the year 1899-1900, differs but little from those of previous years. Our constant aim is to endeavor to attain the maximum of dairy products with the least possible expenditure; we follow the same rotation and the same system of tillage and we continue to try to form our herd by selection, a slow process, it is true, but one more in keeping with our financial position.

The products of the farm, during the year expired, were inferior to those of previous years, which we attribute to the drought in the months of May and June. Still, we managed to suitably winter 4 horses, 20 horned cattle and 4 sheep. The yield of milk was $63,081 \mathrm{lbs}$, which gave $2,653 \mathrm{lbs}$ of butter with an average of 10 cows.

We highly appreciate ensilage for the feeding of stock during stabling; used in moderation and mised beforehand with good straw and a little ground grain, it constitutes a very healthy and palatable food for cattle. In general, the appearance and health of our milk cows, all registered Canadians, are all that could be desired. I trust that these few lines sum up sufficiently our modest agricultural operations to give you a fair idea of them.

## Housekeeping School.

This branch of our institution appears to us to be more and more appreciated, judging from the large number of applications which we receive in advance.

The number of pupils, who attended the school of housekeeping this year was 22 and the average attendance 18. Crenerally speaking, the application and industry of the pupils are satisfactory ; the most difficult task is to break them into habits of order and economy ; they acquire these, however, in time and with the good will which they manifest.

Our programme is now well enough known that I may dispense with its repetition here. But it may not be useless to recall that, in general, we must begin with the simplest elements in the case of first year pupils. Consequently those, who are only one year here, cannot become very proficient either in theory or practice. It is not sufficient to attend the school of housekeeping to be a good housekeeper, unless there be special abilities, such as we meet occasionally.

The first year pupils, who do not profit by the favor granted to them, are not admitted the second year.

There are special prizes accorded at the close of the year for each branch of the programme. These prizes are provided by the Institution. We have, however, received from one of the former pupils of the school of housekeeping a splendid rolume intended for this department ; perhaps, the day is not distant when a medal will be accorded to the most deserving pupil.

## Names of the Pupils who attended the school of house-keeping.



Believe me to be, with deep respect Your very humble servant SISTER ST. RAPHAEL Superioress.

[^0]
## ST. HYACINTHE DAIRY SCHOOL

Honorable F. (x. M. Déchène,

> Minister of Agriculture, Quebec

Sir,
I have the honor to transmit the report of the St. Hyacinthe Dairy School for the year ended the 30th June, 1901.

Hoping that the conclusions of this report will be pleasing to you, I beg to remain

> Your most respectful
> And devoted servant,
> EM. CASTEL.

The Board of Management of the St-Hyacinthe Dairy School has the honor to submit :-

To the Honorable S. A. Fisher, Minister of Agriculture, at Ottawa ;
To the Honorable F. G. M. Dechene, Commissioner of Agriculture, at Quebec ;

And to the Dairymen's Association of the prorince of Quebec-the following report of the operations of the St. Hyacinthe Dairy School for the year 1900-1901.

By decision of the Executive Committee of the Dairymen's Association, dated the 15th February, 1901, Mr. J. N. Lemieux, of St. Hyacinthe, director of the Dairymen's Association, was appointed to replace Mr J. de L Taché as representative of the Association on the Board of Management of the School.

The courses of the Dairy School opened on the 19th November, 1900 and closed on the 30th April, 1901. 8 series of courses were organized in which 228 pupils took part: 103 butter and 125 cheese-makers. Thirtyt世o (32) candidates for inspectorships passed their examinations; 3 received their final diploma and 5 a provisional certificate.

The number of butter-makers was in a very marked way equal to the average of the eight previous years; while that of the cheese-makers was a sixth less than the average, but larger than that of the three last years.

As already noted, it is during the months of January, February and March that the courses draw the largest attendance and the seventenths of the pupils came in to the four courses given during those three months. For two courses of that period over 50 applications were received, which compels the Board to again insist upon the necessity of enlarging the creamery and cheese factory accommodation as quickly as possible.

The following is a table of the attendance at the courses since their opening in 1892:

| Courses | Butter | Cheese | Total |
| :---: | :---: | :---: | :---: |
| 1892-93. | 60 | ... 154. | 214 |
| 1893-94. | 98. | ... 170. | . 268 |
| 1894-95. | 59. | ... 253. | . 312 |
| 1895-96. | 102. | ... 172. | . 274 |
| 1896-97. | 147. | . 155... | . 302 |
| 1897-98. | 82 | .. 105 | . 187 |
| 1898-99. | 170. | .. 82. | 252 |
| 1899-00. | 129. | ... 103.. | . 232 |
| 1900-01. | .. 103. | 125. | 228 |
| Total of the 9 year | ... 950 | 1319 | 2269 |
| Average ... | . 106 | 146 | 252 |

The Board would also recall the necessity of having the exterior of the School repainted without delay.

The Board would call the attention of the Honorable Ministers and the Association to the fact that during the thaw last spring an extensive
landslide occurred in the immediate vicinity of the School. This accident was reported at the time to the Honorable Commissioner of Agriculture at Quebec. The engineer of the Department, sent on the ground, must have made a report of his visit. On its part, the Board examined the ground and estimated at about five hundred dollars the cost of the works that it would be adrisable to get done. It would be desirable to take the matter into consideration in order that these works, if decid ed upou, may be executed before the winter sets in.
Receipts Cash Statements Totals
Output, summer 1900-1901 ..... 1071.87
Quebec ..... 107187
Winter 1900 . 260.69 ..... 260.69
Federal Grant 2000.00 ..... 2000.00
Provincial Grant 3000.00 ..... 3000.00
Association advances .....  .60955 ..... 609.55
3882.11 3000.00 ..... 6882.11
Expenses
Shortage 1st July 1900 397.61 ..... 397.61
Factory furnishings 260.66 .....  260.66
Water, heating and lighting ..... 650.32 ..... 725.32
Washing, cleaning and sundries.. 385.60 ..... 385.60
Office expenses 117.58 80.00 ..... 197.58
Salaries ..... 627 .21
2093.66. ..... 2720.87
Annuity 679.34 ..... 679.34
Annual charges ..... 98.00
72.00 ..... 170.00
Utensils, apparatus and inst ..... 929 .05 ..... 929.05
Freight and carting .....  98.10 ..... 98.10
Sundries 317.98 ..... 31798
$3882.11 \quad 3000.00 \quad 6882.11$

The whole respectfully submitted.
J. C. CHAPAIS, President of the Board.

EM. CASTEL, Secretary of the School.

Quebec, 24th. October, 1901.
To the Honorable F. G. M.-Dechène,
Minister of Agriculture, Quebec.
Sir,
I have the honor to submit the report of the operations of the farmers' clubs and the agricultural societies for the year ended on the 31st. December, 1900, together with a copy of the proceedings of the three meetings of the Council of Agriculture held during the last fiscal year.

The number of clubs is on the increase; 539 were at work this year and their programmes of operations were very satisfactory, especially as they tended to the development of the dairy industry. To attain this object, most of the clubs acquired registered bulls and improved agricultural implements, which otherwise could not have been procured by the parish, and, in addition, held competitions in green fodders and also in dairy cows.

The latter compeition, to encourage the organization of which your department has offered a special graut, proved very popular; 88 agricultural societies, under the control of this department, applied for this premium. The competitors were numerous and the results obtained rery satisfactory.

At its meetings of the 23 rd and 24th January and 12th June, 1901, the Council of Agriculture devoted its attention especially to the improvement of the different breeds of stock and its new regulations seem to have been rery favorably appreciated by the agricultural societies of the province. Some of them took advantage of the offers made them and relinquished the holding of exhibitions to avail themselves of the new regulation of the Council which enabled them to abandon all the other compulsory exhibitions, provided that they devoted their funds to the purchase of sires. Several societies are already in possession of valuable stallions which give complete satisfaction and, relying on the information asked from me on the subject, I have every reason to believe that several other societies will next year adopt the purchase of stallions as their programme of operation.

I beg to say, in conclusion that the various agricultural associations under the control of your Department have done excellent work and that they are more and more appreciated.

> Your obedient servant, OCTAVE OUELLETTE,

Sec. of the Council of Agriculture

## ARGENTEUIL

| SOCIETIES-CLUBS | PRESIDENTS | POST-OFFICH ADDRESS | greretaries | POST-OFEIOE ADDRESS |
| :---: | :---: | :---: | :---: | :---: |
| Agricultural Society. ................ | Robert Watson... ............ | Genera....... .............. .. | G.J. Walker.. ................. | Lachute. |

ARTHABASKA

| Agricultaral Socioty. <br> Farmers' Clubs $\qquad$ | Jos. D. Morin..................... | D'Auteuil ......... .............. | Louis Lavergne.................. | Arthabaskaville. |
| :---: | :---: | :---: | :---: | :---: |
| Manicipality of Cbénic | os. Centin. | St-Patrick's Hil | V. Lessard | St-Patrick's Hill. |
| Chester Ex | Thos. Corriveau | Ste-Hélène de Cbester....... | Olivide Désilets........ ......... | Ste-Hélène de Chester. |
| Cbester West | Grégoire Lafontain | St-Paul de Ohester. | Alf. Lafontaine................ | St-Paul de Chester. |
| Tingwick. | J. Q. Adkms......... | Castlebar.......................... | G. E. Adams... ...... ..... ...... | Castlebar. |
| Herwick. | R. Beaumier | Warwick................. ......... | Rémi Hamel..................... | Warwick. |
| Parish of N.-D. St-Rosaire | Alf. Pratte. | St..Rosaire. | Rev. j. O. Melançon. ....... | St-Rosaire. |
| St-Albert de Warwick | Pierre Renaud ................... | St-Albert | Albert Lainesse......... ...... | St-Albert. |
| Ste-Clotilde de Horton | Ref. Edm. P. de Courval... | Ste-Clotilde ....... | Léon Gélinas........ ........... | Ste-Clotilde. |
| Ste-Slizabeth de Warwick..... | Rev. P. G. Bélivesu.......... | D'Auteuil.... .... .............. | J. D. Morin...... ......... ...... | D'Auteuil. |
| St-Eusèbe de Stanfold. ........ | Philias Sylvain................ | Stanfold............. . . . . . . . . . . | Azade Pellerin .. ...... ........ | Stanfold. |
| St-Louis de Blanford..... ...... | Nap. Parent................... | Blanford........ ......... . ... .. | Alph. Provancher ...... ...... | Blanford. |
| St-Norbert d'Arthabaska..... | John Turcotte......... ......... | Arthabaska Esst............. | Pierre Ouellet........... ....... | Arthabsska East. |
| St-Rómi de Tingwick.......... | Alph. Saucier.................... | St-Rémi de Tingwick....... | Norbert Ouellet..... .......... | St-Rémi de Tıngwick. |
| St-Valère de Bulstrode......... | Dolphis Vigneault.. ... ...... | St-Valère de Bulstrode...... | Joseph Trudel...... ........... | St-Valere de Bulsirode. |
| 8te-Victoire d'Arthabaska..... | Octave Labbé. ................... | Victoriaville..... ............... | Aug. Bourbesu.................. | Victoriaville. |

## BAGOT

BEAUCE

| Agricultural Society, Div. A...... Farmers' Clubs. | Rémi Bolduc.................... | St-François ...... .............. | Wm. Lessard.......... | St-Joseph. |
| :---: | :---: | :---: | :---: | :---: |
| Municipality of Adstock-North | S. L. Dubreuil.. | St-Méthode | Jos. Marois | St-Méthode. |
| Aylmer...... ... | Rrd. P. Meunier.............. | St-Sébastien de B..... | Ls. Paradis. | St-Sébastien de Beauce. |
| Broughton | Rrd. J U. D. Naud... ....... | Hast Broughton....... .... .. | Vita! Jacques .. | East liroughton. |
| Ditchfield and Spaulding ... | (t. d'Orsonnens ......... . .... | Agnès ............... ..... | II. d'Orsonnens | gnes. |
| Gryhurst-South..... ..... ..... | Arcadius Fortier...... ....... | St-Samuel de Gayhurst..... | Alph. Couture.. | St-Samuel de Gayhurst. |
| Lambion | Aphée Deveau........ ....... | Lambton | C. E. Godhout.. |  |
| Shenly ................ | Thos. Beaudoin................ | St-Monoto | Honore Cregotre | St-Honor Linidre. |
| St-Cume de Kennebec. | Etienue Cartier., ............ | Liniere | J. K. Letourneau.......... ... | Linidre. |
| Parish of ${ }^{\text {Saints-Ances }}$ |  |  |  |  |
| Saints-Anges .......... | Thos. Turcotto............ ..... | Saints-Anges ......... ........... <br> Chranay |  | Saints-Anges. <br> Channay. |
| St-Augustin de Wobur | Louis Poulin ..... ..... ......... | Channay ..... ................ ... | Rva. I. A. O. Muart........ Edmond liancour. ......... | $\begin{aligned} & \text { Channay: } \\ & \text { St-Benoit } . \end{aligned}$ |
| St-Elzéar de Linière | Rvd Chas. Leclerc... ........ | St-Elzear. | J P. Guay .. | St-Elzcar |
| St-Ephrem de Tring | Rrvd. I_. Morissette............ | St-Ephrem do Tring. ....... | Jos. Cloutier | St-Liphrem do Tring |
| St-Evariste de Forsyth | Jos. Lachance ........ ........ | St-Evariste de Forsyth...... | Jos. Boutin.. | St-Livariste de Forsyith. |
| St-Françoio ...... ......... ....... | O. Quirion..... . ............... | St-François de 13............ | Nap Mathicu............... | St-Framela de Beauce. |

AGRICULTURAL sOCIETIES AND FARMERS' CLUBS IN OPERATION IN THE PROVINCE OF QUEBEC, 1901. - Cont,

| SOCIETIES-CLUBS | presidents | POST OFFICE ADDRESS | storetaries | POST OFFICE ADDRESS |
| :---: | :---: | :---: | :---: | :---: |
| St-Frédéric | Rvd. J. E. Martin .......... | St-Frédéric ..................... | Noël Roy... | St-Frédéric. |
| St Georges ............... . . | Jos. Veilleux........ .......... | St-George de B..... .... ..... | Jos. Gilbert | St-George East. |
| St-Joseph de la Nre. Beauce. | Thos. Doyon | St-joseph | Alph. Tardif | St-Joseph. |
| Ste-Marie de la Nve. Beauce. | Clovis Mercier.................. | La Beauce...... ................... | Rvd. J. E. Feuiltault....... | La Beauce. |
| St-Pierve de Broughton........ | Rvd. F. L. Pelletier. | W. Broughton | John Doyle..................... | W. Broughton. |
| St-Sévéria ...... ........ ........... | Ach. Lessard................... | St-Sévérin de Beaurivage... | Rvd. J. D. H. Michaud...... | St-Sévérin de Beaurivage |
| St-Victor de Tring.............. | Rvd. J. E. Rouleau... ......... | St-קictor de Tring............ | Arth. Veuilleux...... ..... .. | St-Victor de Tring. |
| Mission of |  |  |  |  |
| St-Hilaire de Dorset |  | St-Hilaire |  |  |
| St-Ludger ... ............... ......... | Rrd. T. Soucy | St-Ludger .......................... | Jos. Dubé | St-Ludger. |

## BEAUHARNOIS



| Farmers' Clubs |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Parish of |  |  |  |  |
| N.-D. Auriliatrice de Buckland. | Joseph Boutin.................... | Buckland ........ ............... | Alphonse Roy............ ...... | Buckland. |
| St-Cajetan d'Armagh. ......... | Laurent Boivin........ ........ | Armagh.............................. | Jos. Langloig..................... | Armagh. |

BELLECHASSE.-Continued.


CHAMBLY


CHATEAUGUAY

| Agricultural Susiety .... .......... | Théodore Brault. ...... ....... | Ste-Martine ........ ...... ...... | Nap. Mallette............ .... | Ste-Martine. |
| :---: | :---: | :---: | :---: | :---: |
| Farmers' Clubs. |  |  |  |  |
| Parish of |  |  |  |  |
| St-Jean Chrysostôme...... .......... | Rev'd L. N. Prérille.. ...... | St-Chrysostôme.. ... | Jos. Bénard ......... ..... ..... | St-ChrysostOme. |
| St-Joachim.......... ................... | Nap. Bourdon ........ ......... | Chateauguay .................. | J. P. Laberge ......... ......... | Chateauguay. |
| Ste-Martine ...... ........... .......... | Eust. Bergeron | Ste-Martine ................... | Nap. Mallette | Ste-Martine. Ste-Philomène. |


| CHICOUTIMI |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Agricultural Society......... ........ | J. D. Guay ......... . ... ...... | Chicoutimi ...... ... | Ad. Tremblay..... ............ | Chicoutimi. |
| Farmers' Clubs. |  |  |  |  |
| Municipality of |  |  |  |  |
| Bagotville .......................... | Didyme Bouchard..... ....... | Bagotville......... ............. | W. Lévesque ..... ........... | Bagotville. <br> Si-Charles Borromée. <br> Chicoutimi. <br> it-Alexis. <br> 今t-Cyriac. <br> L'Anse St-Jean. <br> Tremblay. |
| Bourget. | Rev. R, 'Tremblay <br> Frs Brassard | Chicoutimi .......... ............. | Pierre F. Pageau...... .. ...... Louis Guay................. |  |
| Grande Baie..... ............... | Donat Fortin............. ..... | St-Alexis ............ .......... | Ernest Lavoic ................. |  |
| Kénogami ....... ........ ... .... | Laz Vaillancourt.... ...... | St-Cyriac.......... ........ ...... | M. Demeule........ ..... . .... |  |
| St-Jean........ ............. ...... | Ed. Harvey ............... ..... | L'Anse St-Jean .............. . | Hydas Iloude...... ............. |  |
| Tremblay ....... ........ ........ | Cléophe Brassard ....... .... | Tremblay ......... ....... ........ | Pbydime Gauthier...... ...... |  |
| Parish of Meni Molta |  |  |  | Laterrière. Jonquières. L'Anse-alu-Foin. |
| St-Dominique de Jonquières.. | Jean Maltais .................. | Jonquieres........ ..... ....... | Paschal Anger........... ..... |  |
| St-Fulgence ........ ................ | Rev. D. O. Dufresne ......... | L'Anse-au-Foin.............. | Ernest Tremblay............... |  |
| Mission of |  |  |  |  |
| St-Ambroise....... ............. | Mrj. Gauthier.................. | Riviere a l'Ours.............. | L. P. Grudin.... .... . ........ | Rivicre al l'Ours. |
| COMPTON |  |  |  |  |
| Agricultural Society Nc. 1......... | George Hodge ........ ....... | Cookshire | J. I. Taylor | Oookshire |
| Agricultural Society No. ©.... ..... <br> Farmers' Clubs. | F. J. Goodenough .... ...... | Robinson .............. .... ...... | C. H. Tambs ...... .......... | Robinson. |
| Municipality of <br> auckland | Chéri Brault. .................. | St-Malo...... ......... ..... ... | J.-B. Beauvais ....... ....... | St-Malo. |
| Bury $\qquad$ $\qquad$ | H. M Tite..................... | Brookbury ...... .............. | J. H. Leonard ......... ......... | Brookbury. |
| Ohesham ................. ........ | Rev. A Rousseau............. | N.-D. des Bois........ ........ | Modard Lavigue..... ....... | N.-D. des Rois. |
| Clifton | Alph. Charron ................ | Ste-Fdwidge...... ....... ..... | Art. Charrette........ ....... | Ste-Edwidge. |
| Ditton and Clinton | A. S. Généreux ........ .. . ... | Lar latrie ..... ................ | P. L. N. Prévost ............. | La Patrie. |
| Emberton....... ............. ..... | Chas. Martin .............. ... | Chartierville................... | Louis Blanchetto.... ....... | Chartierville. |
| Hereford............. ....... ..... | Ludger Lazure........ ........ | Paquette. ..... ......... ......... | Aubert Hamelin.............. | Paquette. |
| Marston ..... ..................... | John A. Mcaulay............. | Milan ...... '...... ........... ...... | M. J. N. Murray ....... ........ | Milan. |
| Matston South ............ ...... | Rev. J. D. Bernier, ........... | Valracine ...... ...... ...... ...... | J. J. Turcotto.................. | Valracine. |
| St-Zénon de Piopolis.......... Waterville Village........... | Rev. J. U. Baron ...... ........ | Piopolis ....... ........ .......... | Walston Gaumont............. | Piopolis. |
| Waterville Village.............. | M. Ste-Mario | Moes River..................... |  | Ste-coupile de W |
| Whitton ........... | Pierre Audet. ... | Ste-Cecile |  | St-Romain. |
| Winslow North.. Winglow South. | D. A. McDonald | Milan .... | M. M. Smith | Milan. |

AGRICULTURAL SOCIETIES AND FARMERS' CLUBS IN OPERATION IN THE PROVINCE OF QUEBEC, 1901.-Cont.
TWO MOUNTAINS

| SOCIETIES-CLUBS | presidents | post office Admbess | seoretaries | post office admbess |
| :---: | :---: | :---: | :---: | :---: |
| Agricultural Society........ ........ | John Morin | Petit Bruló...... ............ | B. Beauchamp ........ ........ | St-IIermas. |
| Farmers' Clubs. |  |  |  |  |
| Parish of |  |  |  |  |
| St-Augustin .......... .......... | Esdras Binette................. | St-Augustin ...... . | Victor Urbain. ................ | St-Augustin. |
| St-Benoit .............. ........ | D. Pilon | St-Benoit. | Joseph Lalonde....... ....... | St-Benoit. |
| St-Canut........... .. ........... | Alex. McKenzie.............. | St-Canut | L. N. Muot............. ...... | St-Canut. |
| St-Hermas ..... ......e... ...... | Alfred Legault........ ....... | St-Hermas | MI. Lafond ...... ..... ......... | St-Hermas. |
| Ste-Monique .............. ....... | Nazaire Leroux..... .. ....... | Ste-Monique | Fred. Giroux. | Ste-Monique. |
| St-Placide........................ | Alp. Dubreuil.................. | St. Placide .... ... | L. H. Masson.................. | St-Placide. |
| Ste-Scholastique . ................ | Henri Groulx................... | Ste-Scholastique | Joseph Langlois ..... ...... | Ste-Scholastique. |

DORCHESTER

| Farmers' Clubs. |  |  |  | - |
| :---: | :---: | :---: | :---: | :---: |
| Parish of |  |  |  |  |
| St-Anselm | C. E. Vaillancourt | St-Anselme............. .. ..... | Erangéliste Filteau.... | St-Anselme. |
| St-Bernard | Joseph Larochelle............. | St-Bernard. ....................... | J. L. M. Genest, M. D....... | St-Bernard. |
| Ste-Claire. | Joseph Lacasse ............. | Ste-Claire ...................... | Anselme Chabot ............... | Ste-Claire. |
| St-Edouard de Frampton..... | James Fitzgerald. ..... ...... | Frampton ..... ................. | Jos. Jacasse ....... ............ | Prampton. |
| Ste-Hénédine. | Nricisse Roy... ................ | Ste-Hénédine | Léconard Boulet.. .............. | Ste-Hénédinc. |
| St-Isidore | H. Guay ......... ...... ............ | St-1sidore | Achille Chabot.. .... ........ | St-Isidore. |
| Ste-Justine..... .... ............... | Chs. Morin.. .. ..... .......... | Langevin ..... ........ ........... | Florent Fortier.. ............. | Langevin. |
| St-Léon de Standon ........... | Geo. Audet... ....... ........... | Standon.............. ............. | Nap. Tanguay ......... ........ | Standon. |
| Ste-Margu-rite...... .............. | Révd, Eloi Laliberté ........ | Ste-Marguerite.................. | G. E. Dussault................... | Ste-Marguerite. |
| St-Maxime | Vital Filion ..................... | Scott Jlinction (Beauce) ... | Godfroi Grégoire... .... ...... | Scott Junction (Beauce). |
| St-Odilon de Crambourne..... | Lawrence Colgant............ | Crambourne ..... ...... . ${ }^{\text {a }}$.... | Louis Baillargeon........ .... | Culdaff. |
| St-Prosper de Watford-Ouest | Philias Morin.................... | St-Prosper de Dorchester... | Lonis Morin ................... | St-Prosper de Dorchest:r. |
| Ste-Rose de Watford. .......... | Amédce Dallaire............... | Ste-Rose de Watford ......... | Achille Poliquia............... | Ste-Rose de Watford. |
| Mission of |  |  |  |  |
| St-Nazaire de Buckland....... | Praxède Lacroix............... | St-Nazaire de Buckland..... | Joseph Labrecque.............. | St-Nazaire de Buckland. |

DRUMMOND

| Agricultural Society......... ... ..... | Ed. McCabe.................. | Wheatland.. ......... ........... | George W. Miller............. | Ulverton. |
| :---: | :---: | :---: | :---: | :---: |
| F'armers' Clubs. |  |  |  |  |
| Municipality of |  |  |  |  |
| Durh'm ... | Cyrus Husk | Ulverton........... ............. | A. G. Harriman .............. | Ulverton. |
| South-Durham. .... ........ .... | Cyprien Duhamel. ........... | South Durham................. | Fulgence Prefontaine....... | Drummondville. |
| Grantham.. ....... .. ...... ........ | Rev. Thos, Quinn............. | Drummondville. ............. | Etienne LeBel.................. | French Village. |
| Kingsey. ...... .................. | Wev. F. E. Connolly ......... | St-Cyrille de Wendover .... | D, Gudvremont........... ..... | St-Cyrille de Weadover |
| Wendover and Simpson........ Wickham-West. | Rev. F. E. Lonnoly......... Rev. J. G. Landry...... . . | Wickham-West ..... .......... | J, E. Moulin.................... | Wickham-West. |
| Parish of |  |  |  |  |
|  | Michel Larose. ................ | St-Eugène de Grantham.... | J. Avilla Viger, M. D....... | St-Eugène de Grantham. |
| St-Germain de Grantham.... | Patrick Doré.. ....... ........ | St-Germain de Grantham... | L. N Cotnoir. ........ ... .... |  |

GASPÉ

| Agricultural Soc., No. 1, Div. A. | Jos. X. Lavoie ......... ....... | Gaspé ....................... ..... | James M. Remon,...... ......... | Percé. |
| :---: | :---: | :---: | :---: | :---: |
| Parish of |  |  |  |  |
| Ste-Anne des Mo | Revd. J. A. Pérusse. | Ste-Anne de3 Monts.......... | Jos. Thibault | St-Anne des Monts. |
| St-Martin dela Rivau Renard | Rev'd. E. Morris. ... ......... | Perch | Wm. Flynn | Percé. |
| St-Norbert du Cap Chat........ | Revd. E. Dufour...... ......... | Cap Chat.......... ............. | J. Gustave Roy................ | Cap Chat. |




| AGRICLLTURAL SOCIETIE | S AND Farmers' CLU <br> KA | UBS IN OPERATION IN MOURASKA.-Continue | THE PROVINCE OF | QUEBEC, 1900.-Cont. |
| :---: | :---: | :---: | :---: | :---: |
| societies-Clubs | presidents | pobt office address | segretaries | post office admbess |
| Parish of |  |  |  |  |
| N.-D. de la Ririere Ouehle.... | Rev. Ad. Michand ..... ...... | Rivic̀re Ouelle ................. | J L. Martin | Rivière Ouelle. |
| Notre-Dame du Mont Carmel | Egésippe Massé................ | Mont Carmel.. ......... .......... | Maxime Sirois......... | Mont Carmel. |
| Ste-anne de la Pocatière..... | Riv. Jos. Richard....... | Ste-Anne de la Pocatière... | Lonis J. Bérubé.. . | Ste-Anne de la Pocatiòre |
| St-Denis ...... ...... ..... ........ | Rer. C. S. Brochu ........... | St-Denis de la Bouteilleric.. | Honorat Dumais . ........... | St-Denis. Bou teillerie. |
| St-Louis de Kamouraska...... | C. T. Dugal .......... ......... | Kamouraska...................... | J. A. Blanchet.................. | Kamouraska. |
| St-Onésime....... ..... ........... | Edougrd Bouchard........... | St-0 nésime .. ...... ........... | Revd. J P. Ouellet........... | St-Onésime. |
| St-Pascal..... ...... ...... .......... | Françis Leveque............. | St-Pacome | Louis Gagnon....... ..... <br> Rev. J U. Perron. | - S-Paschal. |
| St-Philippe de Nérí...... ...... | Rev. L 0. Tremblay ......... | St-Philippe de Néri.. ......... | D. Dioune............... | St-Philippe de Néri. |
| LAKE ST. JOHN |  |  |  |  |
| Agricultural Society.................. | J. B. Carbonneau....... ...... | Normandin ....... ..... ........ | Nap. P. Hudon. . . ........... | Hébertville. |
| Farmers' Clubs. |  |  |  |  |
| Township of |  |  |  |  |
| Albanel ............... ........ .... | Ant. Laprise........... ........ | Albanel......... ........ ........ | Ths. Laprise ................ ... | Albanel. |
| Muniaciplity of |  |  |  |  |
| Normandin and Albanel....... N -D. Rivière au Doré | J. B. Carbonneau............ Jean Coulombe.. | Normandin <br> Rivière au Doré. | Stan. Simard. <br> Frs. Gauthier. | Normandin. Rivière au Doré. |
| Municipality of |  |  |  |  |
| St-Mléthode | Jos. Langevin...... ........... | Tikouabé........ .......... ..... | Jos. Giguère...... .... ......... | Tikouabé. |

LAKE ST-JOHN.-Continued.

| Parish of |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Notre-Dame du Lac St-Jean <br> St-Bruno <br> St-Exur de Marie <br> St-Gédéon <br> St-Henri de Péribonca <br> St-J J́rồm du Lac St-Jeau <br> St-Joseph d'Alma. <br> St-Louis de Métabetchouan <br> St-Thomas d'Aquin. |  | Roberval <br> Pasteur <br> Delisle <br> St-Félicien St-Gédéon <br> Taillon <br> Métabetchourn <br> St-J oseph d'Alma <br> Chambord <br> St-Prime <br> Dablon | Alf. J. Brassard <br> Ferd. Larouche <br> Nap. Lessard <br> Joseph Girard. M. P <br> Thomas Noel <br> Gédeon Verreault <br> Ephrem Lapoint Paul Marcoux.... <br> Jos. Potevin. | Roberval. <br> Pasteur. <br> St-Félicien <br> St-Gédéon <br> Taillon. <br> Métabetchouan <br> Chambond dima. <br> st-Prime. <br> Dablon. |
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| Laprairie |  |  |  |  |
| Agricultural Society................. | Alex. Gagnon ................ | Laprairie ...................... | Alf. Brosstan.......... | Laprairie. |
| Farmers' Clubs. |  |  |  |  |
| Parish of |  |  |  |  |
| St-Constant <br> st-Isidore. <br> St-Jacrues le Mineur <br> St-I'hilippe.. $\qquad$ | fos. Lótourneau <br> Aarcisse Demer <br> Moise Coupal. | St-Constant <br> St-Isidore <br> st-Jacques le Mineur <br> St-Philippe. $\qquad$ | F. E. Arnould Edmond Guèrin F C. Larose. | St-Constant <br> St-1sidure. <br> t-Philipes Minear <br> - |
|  |  |  |  |  |
|  |  |  |  |  |
| L'AsSOMPTION |  |  |  |  |
| Agricultural Society ........ | J. P. Archambault.......... | Laurentides................... | I. J. A. Narsan.. | L'Assomption. |
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| Parish of <br> F'armers' Clubs. <br> N.-D. de la Victoire............. <br> St-David de Lauberivière ...... <br> St-Etienne de Lauzon........... <br> St-Henri de Lauzon. <br> St-Joseph de la Pointe Léry.. <br> St-Lambert.. <br> St-Nicolas $\qquad$ $\qquad$ $\qquad$ | Théop. Carrier <br> Rev. H. Desjardins <br> Majorique Dubois. <br> Rev. F. Laliberté <br> Alphonse Roy <br> Frédéric Morin <br> Polycarpe Olivier $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Lévis. <br> St-David de Lévis <br> Baillargeon <br> St-Henri de Lévis <br> Village Lauzon <br> St-Lambert de Lévis <br> Darveau $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | Frs. Labrie <br> Jas. McCready <br> Chs. Martel.. <br> Théodore Dussault <br> H. Bourassa <br> H. Roy <br> Ignace Paquet $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | N.-D. de Léris. <br> Hadlow, <br> Baillargeon. <br> St-Henri de Lévis. <br> Village Lauzon. <br> St-Lambert de Lévis. <br> St-Nicolas. |
| :---: | :---: | :---: | :---: | :---: |
| L'ISLET |  |  |  |  |
| Agricultural Society.. <br> Parish of <br> Farmers' Clubs. $\qquad$ | Aug. Castonguay | Village des Aulnaies | Jos. Ed. Caron. | Ste-Louise. |
| N.-I). de Bonsecours de l'listet St-Aubert <br> St-Cyrille de Lessard... ......... <br> St-Eugène <br> St-Jean Port Joli. <br> Ste-Louise <br> St-Marcel de I'Islet. <br> St-Pamphile <br> S'te-Perpétue $\qquad$ $\qquad$ $\qquad$ <br> St-Roch des Aulnaies.. $\qquad$ $\qquad$ | Désiré Nurmand. <br> Damase Deschènes. <br> Revd. Chs. Baillargeon.... <br> Ed. Pelletier <br> Rerd. C. E. Frenette <br> Revd. G. Guy <br> (iilbert Couillard <br> Revd S. H. Lessard <br> Revd. Ed. Martin <br> Odilon Pelletier. $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | L'Islet St-Aubert St-Cyrille de l'Islet.. ... ... Lamartine. <br> St-Jean Port Joli <br> Ste-Louise <br> St-Marcel <br> St-Pamphile <br> Garneau $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ St-Roch des Aulnaies $\qquad$ | F.-X Cloutier <br> Revd. L. N. Lessard. <br> Irence Lord. <br> Alf. Bélanger <br> Nav. Giasson <br> Louis Gagnon <br> Revd. F. X. A. Dulac. <br> Chrysosiôme Fortin. <br> Joseph Pelletier <br> G. A. Pelletier $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ | L'Islet <br> St-Aubert. <br> St-Cyrille de l'Islet. <br> Lamartine <br> St-Jeac Port Joli. <br> Ste-Louise. <br> St-Marcel. <br> $\therefore$-Pamphile. <br> Garnean. <br> St-Roch des Aulnaies. |


| LOTBINIERE. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SOCIETIES-CLUBS | presidents | POSt office amdress | seonetaties | post offlom abdress |
| Farmers' Cliabs. |  |  |  |  |
| Parish of |  |  |  |  |
| St-A gapit de Beaurivage ...... | 1saïe Demers........ ........... | St-A gapit ........ ...... ........ | Théod. Paquet...... .... .... | St-Agapit. |
| Ste-Agathe ..................... | Michel Carrier........ ....... | Ste-Agathe de Lotbiniere.. | Cyprien Morrissette.. ...... | Ste-A gathe de Lotbiniere St-Antoine de Lotbiniere |
| St-Antoine de 'Tilly............ | Chs, Bergeron ........ ....... | St-Antoine ........ . ....... | Rev. Alb. Rouleau...... .... | St-Antoine de Lotbiniere Ste-Croix. |
| St-Edourd. | Jos. Brown ................ ..... | Riviere Bois-Clair, ........... | Philippe Gagn6......... .... | Rivière Bois-Clair. |
| Ste-Emélie de Lotbinière...... | Ant. Beaudet .................. | Leclercville..................... | Edmond Bernard. | Leclercville. |
| St-Flavien.. | Philias Desrochers ...... ..... | St-Flavien... ................... | J. B. Desrochers.............. | St-Flavien. |
| St-Gilles de Beaurivage....... | F'élix Boyle... ........... ...... | St-Gilles......... . . . . . . . ........ | Rev. J. F. Ed. Paquet....... | St-Gilles. |
| St-Jacques de Parisville....... | Jos Batabé..................... | Parisvi!le...................... | Rev. J. T. Thibodeau ....... | Parisville. |
| St-Jean d'Eschaillons............ | Revd. J. E. Lizotte... ........ | St-Jean d'Eschaillons........ | Ths. Barrabé....... .. ........ | St-Jern d'Eschaillons. |
| St-Louis de Lotbinière ........ | Phileas Boucher............... | Lotbinière | Siméon Bernard. | Lotbinidre. |
| st-Narcisse de Beaurivage..... | Hubert Paradis................... | Newbois | Didace Kirouac | Newbois. |
| St-Patrice de Beaurivage .... | John Brown | Parkhurst ......... ...... ......... | James Heaney ... | Beaurivage. |
| Ste-Philomène de Fortierville | Gédéon Tousignant.. ........ | Ste-Philomène d' Esch ..... ... | Red. M. Moreau.. ..... | Ste-Philomène d'Esch. |
| St-Sylvestre ........ ......... ...... | Hugh Doherty | St-Sylvestre-Est .............. | Jos. J. Pagear, M, D........ | St-Sylvestre-Fa3t. |

## MASKINONGÉ



AGRICULTURAL SOCIETIES AND FARMERS' CLUBS IN OPERATION IN TIIE PROVINCE OF QUEBEG, 1900.-Cont.


## NAPIERVILLE

| Agricultural Society................. | Frédêric Durivage...... ..... | St-Edouard de Napiervillo. | Art. Collette. ...... .... ...... | St-Rémi. |
| :---: | :---: | :---: | :---: | :---: |
| Farmers' Clubs |  |  |  |  |
| Parish of |  |  |  |  |
| St-Cyprien de DeLéry*.......... | L. N. McQueen........ ........ | Napierville. | Dr Ls. D. Rochette .... ..... | Napierville. |
| St-Eidouard.... .. .... ..... ...... | Ex. Serre.......... ........ ..... | St-Edouard de Napierville.. | G. Blain.. ...... ...... .... ..... | St-Edouard de Nap. |
| St-Michel......................... | Alp. Laberge............. ..... | St-Michel de Napierville ... | M. Coupal | St-Michel de Napierville. |
| St-Patrice de Sherrington.... St-Rémi de la Salle........... | Michael U'Meara ............. | Sherrington......... ..... ...... | Adjutar Girardin...... .... | Sherrington. |
| St-Rémi de la Salle............. | Chis. Laporte........ ........... | St-Remi.. ........ ......... ..... | Arthur Colerte.... . ...... ..... | St-Rémi......... ............ |

AGRICULTURAL SOCIETIES AND FARMERS' CLUBS IN OPERATION IN THE PROVINCE OF QUEBEC, 1901.-Con
NICOLET

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OTTAWA

| Agricultural Society |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No. 1 Div. A......... ........ ........... | D. Stewart..................... | Aylmer-East.......... ........ | N. E. Cormier ........ ....... | Aylmer-East |
| No. 2 Div. A...... ...................... | P. A. Quesnel ........... ..... | St-Andró A v...... ..... . ...... |  | Montebello. |
| No 2 Div. B.............. .............. | Rev. C. Prouix...... ........ | Labelle ......... ................. | J. A. Lalande...... ..... ...... | Nominingue. |
| Farmers' Clubs. |  |  |  |  |
| Junicipality of |  |  |  |  |
|  | Nap. Lavigne |  | Philómon Turco | St-Rémi d'Am. |

OTTAWA.-Continued.


| AGRICULTURAL SOCTEITE | AND FARME | UUB IN OPLRRATIO PORTNEUF | N THE PROVIN | UEBECC, 1900.-Cont. |
| :---: | :---: | :---: | :---: | :---: |
| SOCIETIES-CLUBS | preshlonts | post ormich admbess | sechetalmes | post ofmien amblegs |
| Agricultural Societ:$\qquad$ Camille Germain$\qquad$ Cap Santé$\qquad$ |  |  | S. Delisle. .. ............ ..... Cap Santé. |  |
| Farmers Clubs. |  |  |  |  |
| Parish of |  |  |  |  |
| St-Alban d'Alton............... | Alfred Noud.... | Poiré | Jos. LıahaieEdmond Valin ......... ........St-Alban.Solair. |  |
| St-Augustio de Demaure..... | Louis Johin | St-Augustin ....... |  |  |
| St-Basile .............. ...... .... . | Revd. A. Ganthier. | St-Basile............... | Dolor Descarrcan.............. St-Basile. |  |
| St-Casimir . ..................... | Oct. Lagauière...... | St-Cusimir ..... | T. V. 'rrottier...... ..... ...... St-Casimir. |  |
| St-Charles de Grondines .... | Lonis Archambault | Grondines ....... | Leuis Cotó ....... ............ Grondires. |  |
| Ste-Christine ....... ...... ..... | Victor Leclerc... | Auvergae | \|Révd. M. Bernard............ Auvergn |  |
| Ste-Famille du Cap santé..... | L. P. Bernard, N | Cap santo | S. Delisle.......... .... ...... Cap Santé. |  |
| Ste.F de Pte aux 'lrembles... | G. A. Larue.. | Pointe aux ''rembles | Alfred Clermont............. Pointe aux Trembles. |  |
| St-Gilbert ....... ....... ........ | Louis Julien | St-Gilbert | Bertrand (iraud ............. St-Gilb |  |
| Ste-Jeanne de Neuville........ | Chs. Pelletier.... | Pont Rouge... | Eusèbe Charpentier, fils.. ... Pont Rouge |  |
| St-Joseph de Deschambault... | Grégoire Puquin | Deschambaul | Alfred Arcand ........ ........ Veschambault. |  |
| St-J.-Bte des Ecureuils ....... | Jacob Denis... | Les Ecureuils | Mat Suvard.... ........ .... Les Licureuil |  |
| St-Léonnrd de Port Maurice.. | Louis Lesage | St-Léonard. | Louis Verreault ............ . St-Léo |  |
| St-Raymond Nonnat ... ..... | I. P. Plamondon | St-Raymond. | Cyprien Paró.......... ....... St-Raym |  |
| St-Rémi......... ..... ............ | Geo. Doré........ | Lacaux Sab | Jos. H. Boudreault........... Lac aux Sab |  |
| St-Thuribe...... ...... .......... | Phil. Crête | St-Thuribe | E1\%. Lachance ......... ........ St-Thuribe. |  |
| St-Ubalde...... ..... ...... ........ Sylva Denis ......... ..... .... St-Ulbalde ..... ........ ....... Octave Béland......... ........ St-Ulbalde. |  |  |  |  |
| QUEBEC |  |  |  |  |
| Agricultaral Society | Chs. E. Dubord <br> S. Lesage $\qquad$ $\qquad$ |  | J. B. Delage, N. P............. <br> F. Connolly $\qquad$ <br> No. 54, Bridge St, Que Little River. |  |
| Agr. Soc. of the City of Quebec |  | Quebec............ ...... |  |  |
| Farmere' Cluts. |  |  |  |  |
| Parish of |  |  |  |  |
| Ancienne Lorette............... | Onésime Puquet | Grand Désert. | Pierre Déry .......... | Grand Désert. |
| N-D. de Miséric. de Beauport. | Victorien Parent | Beauport .... ...... ..... | Edmond C. Giroux. | Beauport |
| St-Chales de Charlesbourg.. | Jos. Renauld .... Dr M. H. Brophy | Charlesbourg...... ..... | David Paradis ...... | Charl6sbourg. Ste-Foye. |
| St-Gab. de Valcartier.......... | Thus. Brown .... | Valcartier, village | Joha McBain..... | Valcartier. |

RICHELIEU
RICHMOND

| Agricultural Society ..... ... ......... | Wiber Gallup................. | Danville........... ....... ..... | E. C. Atkinson......... ........ | Melbourne. |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Farmers' Clubs. } \\ & \text { Parish of } \end{aligned}$ |  |  |  |  |
| St-Praxède de Brompton...... <br> St-Frs-Xavier de Brompton... | J. P. Dagneault............... Geo. Morin | Brompton Falls $\qquad$ St-Frs-X. de Brompton .... | J. A. Allard Art. Morissette | Brompton Falls. <br> St-Frs-N. de Brompton. |
| Municipality of <br> St-Georges de Windsor.. | Pierre Roy... | St-Georges de Windsor..... | Emilien Rathier ...... ........ | St-(ieorges de Windsor |
| RIMOUSKI |  |  |  |  |
| Agricultural Society, Div. A....... | Aug. Lavoie.................... | Ste-Luce ......... .............. | D. Bogin . ...................... | Rimouski. |

RIMOUSKI．－Cont．

|  <br>  <br> ＂II ${ }^{3} \mathrm{H}^{\text {abрәの }}$ － 8 s！ol゙－75 <br>  <br>  จивтв －Tysnowaly <br>  <br>  <br>  <br>  <br> －！вuo（I 7S <br> ！Ysnow！y әр әsвu＊g－3S －$อ!$ <br> จu！рияโด－วาs <br> mbus y <br> ＊วาวหน V－7S <br> ！！ynow！⿰丬 өp＂ $\mathrm{U}^{-*} \mathrm{~N}$ <br> －ou sfow on ontols －งวp！NOW － 0 ．！ －${ }^{\text {bo8desus }}$ |  <br> ว <br>  <br>  <br>  <br>  <br> …… ．．．．．．．．．．0100 mrs <br>  <br>  <br> ．．．．．．．．．．．．．．．．．．．．．．रosə＇V＇f <br>  <br>  <br>  <br>  <br>  <br> 70！！nod＇V stnor <br>  <br>  <br> ．．．．．．．．．．．．．．．．ssund s！xəty <br>  <br>  <br>  |  | 8！o！aurl ‘sup <br>  <br>  <br>  <br>  topny sor <br>  <br>  ＂دəu！od＇V＇دәy <br>  <br>  पousbท ！uみH әәриケ d $\Delta$－y <br>  <br>  <br>  <br>  <br>  <br>  u！d．iv＇S｀I＇səy <br> ．．．．．．．．．．．．．．．．．．．．．．．．xnəzqar sor <br>  <br>  |  |
| :---: | :---: | :---: | :---: | :---: |
| BETuGGV ngIMAO LSOd |  | SSMuGIV cotado lsod | BLN9IIStud |  |

ROUVILLE
SAGUENAY

| Agricultural Clubs. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Municipality of <br> Bergeronnes. | Revd Art. Guay......... ...... | Bergeronnes...... .............. | Flzéar Simard................. | Bon Désir. |
| Les Escouraains ................. | O. Bergeron.................... | Escoumains..................... | Revd Ed. Boily.............. | Escoumains. |
| Tadousuc....... .... ...... ........ | Revd M. Trembliay..... ..... | Sacré-Cøur ......... ........... | Eug. Caron.. .............. ...... | Tadousac. |
| Parish of |  |  |  |  |
| St-Paul de Mille Vaches........ | Jos. Levasseur <br> Sylvestre Huar $\qquad$ | Mille Vaches............... .... Marpic. | Revd Jos. O. Perron Cbs. Poirier $\qquad$ | Brie de Bacon. Marpie. |
| SHEFFORD |  |  |  |  |
| Farmers' Clubs........... ............. | A. A. Sargeant..... .......... | Castman, Co. BrOme........ | N. O. Rockwell ............. | Waterloo. |
| Agricultural Clubs. Municipality of |  |  |  |  |
| Kly-South..... ........ .......... <br> Roxton Falls.............. ........ | Ed. Robin............ ............ <br> Anastasie Benoit .... ........ | Valcourt.............. ........... <br> Roxton Falls | Oct. Brassonnette ............. | Roxton Falls. |
| St-Valérien de Milton.......... | Jos, Goyette..... ...... ........ | St-Valórien..................... | Tretllé Messirr........ ... .... | St-Valórica. |
| Waterloo............ ............ | Alex Aird..... | Frost Village.................. | Dosithée Girard............... | Waterloo. |


| SHEFFORD.-Continued |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SOCiEties-CLUBS | presidents | post offioe 4 doress | becretaries | post officr moress |
| Parish of |  |  |  |  |
| N.-D. de B. de Stukely <br> St-Alphonse <br> Ste-Cécile de Milton <br> St-F -X. de Shefford. <br> St-Joachim de Shefford | Oct. Tessier <br> Eug. Côté. <br> Frs. Dupaul <br> Tbos. Hart. <br> Agapit Bólanger. | North Stukely St-Alphonse de Granby..... Milton-East.. West-Shefford. St-Joachim de Shefford...... | Prudent Sénécal <br> Eug. F. Forgues <br> Fred. D. Parizeau .......... <br> Wm Harris, Jr <br> Frédéric Brodeur. | North Stukely. <br> St-Alphonse de Granby <br> Milton-East. <br> West-Shefford. <br> St-Joachim. |

SHERBROKE

SOULANGES

AGRICULTURAL SOCIETIES AND FARMERS' CLUBS IN OPERATIONIN THE PROVINCE OF QUEBEC, 1900.-Cont. $\|$
ST-JOHN

| SOCIETIES-CLUBS | Presidents | POSt office address | secretaries | post offige adoress |
| :---: | :---: | :---: | :---: | :---: |
| Agricultural Society..... ........... | James O'Cain ................... | St-John...... ...... ...... ......... | A. N. Déland. | St-John. |
| Farmers' Clubs |  |  |  |  |
| Parish of |  |  |  |  |
| St-Blaise......... .................. | L. S. Perrier.................... | St-Blaise........ ................ | Alfred Z, Roy ......... ....... | St-Rlaise. |
| St-John ............. ....... .... | Ephrem Moreau....... ....... | St John ..... ..... ..... . ......... | A. N. Déland.......... ...... | St,-John. |
| Ste-Marguerite de Blairfindie. St-Paud lille nux Noix..... | Jos. Beland.................... Henri Hébert .... .... ...... | L'Acadie ............... . .... | Art. Gagnon ........ <br> Xiste Girard ....... | Lacadie. lie rux Noiz. |
| St-Valentin., .................... | Ernest Bouchard..... ....... | Stottville ........................ | Joseph Bouchard......... ...... | St-Valentin. |

ST-MAURICE

| Agricultural Society. .............. | Michel Bourassa ... .. ......... | St-Barnabé............. | E. Bellemarre.. .... ........ | St-Baruahé. |
| :---: | :---: | :---: | :---: | :---: |
| Farmers' Clubs |  |  |  |  |
| Parish of |  |  |  |  |
| Ste-dnne d'Yamachiche....... | E. G. Lajoie..... ...... ... .... | Yamachiche .................. | Vap. Pellerin.. ........ ...... | Yamachicle, |
| St-Barnabé. .................. | Arth. Bald.. ............ ..... | St-Barnubé ................... | L. O. Bournival, M. D.. ... | St-Rarnabé. |
| St Elie de Caston ........ ..... | Revd. A. P. Lamy .............. | St-Elie........ ........ | Max. Philibert................. | St-Elie. ${ }^{\text {Ster }}$ |
| St-Etienne des Grès ........... | Revd. J. P. Garceau.......... | St-Etienne des Grès. | J. E Lemire ........ | St-Etienne des Grès. |
| Ste-Flore.......... ..... .......... | Revd. F. Verville............. | Ste-Flore...... ........ .... | Naz Deschènes.... ..... ..... | Ste-Flore. |
| Sit-Serere -........... | Pierre Héroux | St-Sévere -........ ........... | Eucher Lamy........ .......... J. O. Dugré .... | St-Severe. Pointe du Lac. |
|  |  |  |  |  |

## TEMISCOUATA

Rivière du Loup (en bas)

> St-Jean de Dieu. St-Cryrien. St-Epphane. St-Mode:te.

Ste-Rose du Degero
1sidore Amert. Wue. ...
Rev. Jos. Ant. Ouellet
Cd. Reanlien .............
Loul Caron ...........
J F. Dubó
P. II Pelletier........
Mag!oire Deschenaes
David Caron ....... Joseph Destosiers.
Rivière du Loup (en bay)...
Arsène Dumont..
Alp. Ouellet.....
Frs. Desbien....
P. A. Gamache.. J. A. Lavigne Emile Dumond.
Ed. Michaud.... Naz. Lebel .....
Marcelin April
1sidore Athert Cacouna .... ...................
Armand ....................
He Verte ................
St-Louis du Ha! Ha! ........
Rivière du Loup (en bas)...
St-Paut de la Croix..........
Ste-Rose du Dégelé.......
J. Elz. Pouliot............ ....


C. O. Tardif
Ignace Massé...
Geo. Chouinard Ernest Godbout
Pierre Landry
Alpbée Côtó. ..
J. E. Pouliot....
Filourd ©óte
7!nvq!川山 V - Aว่
Farmers' Clubs.

## Municipality of

Begon .....
Whitworth.
N. - D. des Neiges des T Pisto ${ }^{\prime}$


| Agricultural Society, No. 1.... .... | Louis Labelle................. | St-Jórôme ............. ......... | F. Villeneavo .. ............... Ste-Anne des Plaines. |
| :---: | :---: | :---: | :---: |
| Agricultural Society, No, 2......... | Lev. A. G. Moreau............ | Lac Masson............. ......... | Dr. W. Griguon . ... ......... Ste-Adelo. |
| Farmers' Clubs. |  |  |  |
| Municipality of |  |  |  |
| A bercrombic. | J. B. İfcasse.................. | St-Mippolyte | Bmilo Dagenais ......... .... |
| Ioncrster......... | Nod Forget........ ..... ....... | Ste-Lucio de Donerster.. ... | Léopold Ándró ............... Site-lucie do Doncnster. |
| Salaberry and Grandison...... | Joseph Léonard......... .... | St-Jovite ......... ......... .... | Wilfrid IR. Laprinte.. ........ St-Jovito. |

Revd. L. C. H. Tremblay
Ernest Godbout...............


St-Lonis du Ha! Tr ….......
St-Putrice de la Croix.
Léopold Audró ................ Site-Lacie do Doncaster.
Wilfrid R. Laprointe.
AGRICUITURAL SOCIETIES AND FARMERS' CLUBS IN OPERATION IN THE PROVINCE OF QUEBEC, 1900.-Comt.
TERREBONNE-Continus.
THREE-RIVERS

| ```Agricultural Society Parish of Farmers' Clubs. N.-Dame des Trois-Rivières...``` | E. O. Duval ........ ........... | Three-Rivers... ................ | Alph. Duval.............. .... | Ste-Marguerite. <br> T. Rivers, Ste Marguerite. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | Narcisse Cloutier. | T.-Rivers (Ste-Marguerite. | Th. Beaudry |  |
| VAUDREUIL |  |  |  |  |
| Agricultural Society ........ ........ | Dr H. Pilon ....... ............ | Vaudreuil ........ ........ ...... | Jos. Denis ........ .............. | Vaudreuil. |
| $\begin{aligned} & \text { Farmers' Clubs: } \\ & \text { Municipality of } \\ & \text { Newton................ ......... ..... } \end{aligned}$ | Revd. O. Dufault........ ...... | Ste-Justine de Newton ..... | Frbien Lortie.................. | Ste-Justine de Newton. |
| Parish of <br> Ste-Madeleine de Rigaud...... |  |  |  |  |
| Ste-Marthe.......... .... ......... | Wm. Farmer...... | Ste-Marthe. ...... | Adhomar Jeannotte........... | Ste-Marthe. |




Statenent of receipts and expenditure of FARMERS＇

| FARMERS＇CLUBS （By counties） |  | RECEIPTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 贸品 |  |  | 苞 | 苞 | ｜rin | Total |
|  | Argenteull |  |  |  |  |  |  |  |
| Municipalitr of Aruadel <br> Parish of St－André－Arelin．．．．．．．．．．．．．．．．．．．．．．．． |  | $66$ | 5883 | 6600 | 3300 |  | ．．．．．．．．．． | 9900 5883 |
|  |  | 66 | 5883 | 6600 | 3300 | ．．．．．．．． | ．．．．．．．． | 15783 |
| Arthabaska． |  |  |  |  |  |  |  |  |
| Municipality of Chenier．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | 104 | 1260 | 12600 | 5000 | 15197 | ．．．．．．．． | 34057 |
|  | Chester－East．．．．．．．．．．．．．．．．．．．．．．． | 126 | ．．．．．．．． | 12600 | 5000 | ．．．．．．．． | ．．．．．．．． | 17600 |
|  | Chester－West．．．．．．．．．．．．．．．．．．．．．．．．． | 104 | ．．．．．．．． | 10400 | 5000 | ．．．．．．．． |  | 154.00 |
|  | Tingrick．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 84 |  | 8400 | 4200 | ．．．．． | 5150 | 17750 |
|  | Warwick．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 126 | 555 | 12600 | 5000 |  |  | 18155 |
| Parish of | St－Albert de Warwick ．．．．．．．．．．．．． | 100 | 1340 | 10000 | 3000 | 1000 | ．．．．．．．．． | 17340 |
|  | St－Christophe d＇Arthabaska．．．．．．． |  | 794 |  |  |  | ．．．．． | 794 |
|  | Ste－Clotilde de Horton ．．．．．．．．．．．．． | 89 | ．．．．．． | 8900 | 4450 | ．．．．． | ．．．． | 13350 |
|  | Ste－Elizabeth de Warwick．．．．．．．． | 105 | 3413 | 10500 | 5000 |  | ．．．．．．．． | 18913 |
|  | St－Eusèbe de Stanfold．．．．．．．．．．．．．．． | 51 | 4799 | 5100 | 2550 | 27601 | ．．．． | 40050 |
|  | St－Louis de Blanford．．．．．．．．．．．．．．．． | 87 | 131 | 8700 | 4350 |  | － | 13181 |
|  | St－Norbert d＇Arthabaska．．．．．．．．．．． | 91 | 2621 | 9100 | 4550 | 025 | ．． | 16296 |
|  | St－Rėmi de Tingwick．．．．．．．．．．．．．．． | 40 | 479 | 4300 | 2500 | 200 | ．．．．．．．．． | 7479 |
|  | St－Rosaire（N．－D．du）．．．．．．．．．．．．．．． | 36 | 6811 | 3600 | 1300 | ．．． |  | 11711 |
|  | St－Valere de Bulstrode．．．．．．．．．．．． | 31 | 173 | 3100 | 2500 |  | 047 | 5820 |
|  | Ste－Victoire d＇Arthabaska．．．．．．．．． | 116 | 2599 | 11600 | 5000 | ．．．．．．．．． | 1591 | 20790 |
|  |  | 1290 | 24975 | 131500 | 61400 | 44023 | 6788 | 268686 |
| Bagot． |  |  |  |  |  |  |  |  |
| Parish of | St－André d＇Acton ．．．．．．．．．．．．．．．．．．． |  | 5694 |  |  |  | ．．． |  |
|  | Ste－Christine ．．．．．．．．．．．．．．．．．．．．．．．．．． | 30 101 | 079 | 30 101 100 |  | 1649 | ．．．．．．．． | 7228 15100 |
|  | St－Dominique．．．．．．．．．．．．．．．．．．．．．．．．．． | 101 | ．．．．．．．．．．． | 10100 160 10 | $\begin{array}{ll}50 & 00 \\ 50 & 00\end{array}$ | ．．．．．．．．．．． | ．．．．．．．．．． | 15100 21027 |
|  |  | 117 | 1658 | 16027 11350 | 50 50 50 0 | ．．．．．．．．．．． | ．．．．．．．．． | 151027 180 |
|  | St－Hugues．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 107 | ．．．．．．．． | 10700 | 5000 | ．．．．．．．．． | ． | 15700 |
|  | St－Lıbuire ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． |  | 512 |  |  | ．．．．．．．． | ．．．． | 512 |
|  | St－Na\％aire．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 53 | …… | 53 co | 2650 | ．．．．．． | ．．．．．．．． | 7950 |
|  | St－Pie．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 102 | 2650 | 18700 | 5000 | ．．．．．．．． | ．．．．． | 26350 |
|  | Ste－Rosalie ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 100 | 2300 | 10000 | 5000 |  | ．．．．．．． | 17300 |
|  | St－Simon．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 160 | ．．．．．．．． | 16000 | 5000 | 1000 |  | 22000 |
|  | St－Théodore ．．．．．．．．．．．．．．．．．．．．．．．．．．． | 101 | 1334 | 10100 | 5000 | 600 | 460 | 17494 |
|  |  | 973 | 14227 | 111277 | 45150 | 3249 | 460 | 174363 |

CLUBS For the fear ending 31st december 1900

EXPENDITURE

|  |  |  |  |  | 告 |  |  | Total | REMARKS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | .... | 9900 5883 | $\begin{array}{ll}99 & 00 \\ 58 & 83\end{array}$ |  |
|  |  |  |  |  |  | ............ | 15783 | 15783 |  |
| ...........* | .........' | 900 | 13650 | 14997 | 3063 | 797 | 650 | 34057 |  |
| ............ | . |  | 4312 | 11200 |  | 1400 | 688 | 17600 |  |
| ............ | -• |  | 5000 | 10400 |  | ........... | , | 15400 |  |
| ...... ...... | ....... |  | 8500 | 8400 | 471 | 379 |  | 17750 |  |
| ............ | 3060 | $\cdots$ |  | 11718 | 300 | 1401 | 1676 | 18155 |  |
| ............ | 3500 | .... | 1600 |  | ......... | 357 | 1383 | 17340 |  |
| ........... | ............ | . ..... | .0....... | ......... |  | . .. ..... | 794 | 794 |  |
| ....... $\cdot$..... | 4138 | $\cdot$ | ........ | 8563 |  | 649 | .... | 13350 |  |
| ............ |  | - | 5900 | 10533 | ........ | 4931 | $198 \%$ | 18913 |  |
| ........... |  |  | 3400 | 32618 | 790 | 625 | 2617 | 40050 |  |
| -............ | 2500 | - ... | ........... | 8700 | 350 | 950 | 681 | 13181 |  |
| ..... ..... |  | ....... | 49 75 | 9097 |  | 661 | 1563 | 16296 |  |
| $\cdots$ | - | 1525 | -. | 3999 | …" | 515 | 1440 | 7479 |  |
| -........... | $\cdots$ | 1200 | ............. | 3343 | 475 | 800 | 5593 | 11711 |  |
| ........... | 2125 |  |  | 3100 | 200 | 395 | ......... | 5820 |  |
| ....... ... | ............. | 850 | 5500 | 11600 | 1305 | 1535 | ........ | 20790 |  |
| ............ | 15323 | 4475 | $528 \quad 37$ | 158268 | 6954 | 10957 | 19872 | 268279 |  |
| ... ....... | - 1 ....0 | $\cdot$ | . |  | ...0.0.... | ..... ....... | 5694 | 5694 |  |
|  | 168 | . $\cdot . .1$. | ............ |  |  | 5 21 | 2188 | 7228 |  |
| 250 | 3650 | ... | ....... | 10100 | 200 | 287 | 613 | 15100 |  |
| ..... ...... | 3750 |  | ............. | 16027 | ........... | 316 | 934 |  |  |
| ........... | 4550 | ....... ...... | ........... | 11350 | 425 | 1097 | 586 | 18008 |  |
| ........... | . $\cdot$... |  | ............ | 10700 |  | 025 | 4975 |  |  |
|  | ..... ....... |  |  |  |  | ...... .... | 512 | 512 |  |
| ............ | 575 | . |  | $5: 300$ | ............. | ....... ..... | 2075 | 7950 |  |
| .......... | 5600 | . | . | 18700 | ............ | ..... ....... | 2050 | 26350 |  |
| ............. | 2300 | .... | ....... | 10000 |  | 500 | 4500 | 17300 |  |
| ...... ...... | $60 \quad 00$ | [..... .... | .000. ....' | 16000 | " | ............ | ............. | $22000$ |  |
| ...... .... | 6900 |  | ....... .... | 9393 |  | ........... | 1201 | 17494 |  |
| 250 | 334.93 |  |  | 111921 | 625 | 27.46 | ' 25:828 | 174363 |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

## Statement of receipts and expenditure of Farmers'



CLUBS For the year ending the 31st december 1900

## EXPENDITURE



## Statement of receipts and expenditure of Farmers'



OLUBS FOR THE YEAR ENDING THE 31ST DECEMBER 1900

## EXPENDITORE

|  |  |  |  | 告总总 | ص10 |  |  | Total | REMARKS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ．．．．．．．0．＊＊ | 1700 |  |  | 4700 |  | 200 | 633 | 7233 |  |
| ．．．．．．．．．．．． |  | 2450 | ． | 8289 |  | 570 | 4000 | 15309 |  |
|  | 3375 |  |  | 17700 |  | 250 | 4445 | 25770 |  |
| －．．．．．．．．．．． | 3000 | ．．．．．．．．．．．． |  | 8284 | 900 | 954 | 1212 | 14350 |  |
| ．．．．．．．．．．．． |  |  | 5000 | 26125 | 2275 | 1449 |  | 34849 |  |
| ．．． | 3985. |  |  | 10200 | 15 58 | 1246 |  | 16989 |  |
| ．．．．．．．．．．．． | ．．．．．．．．．． | 4300 | ．．．．．．． | 7200 | 580 | 998 |  | 13078 |  |
|  |  |  |  |  |  |  | 7030 | 7030 |  |
| 240 | 2800. | ．．．．．．． | ．．．．．．．．．． | 8550 | 1165 | 1069 | 276 | 14100 |  |
| ．．．． | 2732 ． | ．．．．．．． | ．．．．．．．．．． | 10100 |  | 150 | 3633 | 16615 |  |
| ．．． | 2000 |  |  | 3600 |  |  | 2605 | 8205 |  |
| 240 | 19592 | 6750 | 5000 | 104748 | 6478 | 6886 | 23834 | 173528 |  |
| $\cdot$ |  |  | 2000 | 8853 | 902 | 992 | 1544 | 14291 |  |
| －．．．．．．．．．．． | 3000 | 5000 | ．．．．．．．．．．． | 369 29 | $\begin{array}{ll}5 & 0 \\ 15\end{array}$ | 3322 | 1859 | 50610 |  |
| ．．．．．．．．．．．． | 1200. |  | ． | 33395 | 1538 | 1009 | 571 | 37713 |  |
| ．．．．．．．．．．． | 3200. | ． | ．$\cdot$ | 3700 | 950 | 537 | － 2510 | 10897 |  |
| ．．．．．．．．．．．．． | －．．．．．．．．． | ．．．．．．．．．． 220 | － | 6900 | 550 | 766 | $\begin{array}{rl}80 & 23 \\ 7 & 38\end{array}$ | 16239 |  |
| 2．．．．．．．．．．． |  |  | ．．．．．．．． | 67 30 | 312 | 6 2 | 4837 | 139 80 48 |  |
| ． | 2800 | ． |  | 9546 | 300 | 624 | 3352 | 16622 |  |
| ．．． | ．．．．．．．．．．． | ．．． |  |  |  |  | 2050 | 2050 |  |
| ．．．．．．．．．．．． |  |  | 4165 | 7782 |  | 498 |  | 12400 |  |
| ．．．． | 13550 | 7200 | 6165 | 116856 | 5052 | 8585 | 25484 | 182892 |  |
| ．．．．．．．．． | ．．．．．．．．．．．． |  |  |  | ．．．．．．．．．． | ．．． | 3529 | － 3529 |  |
|  | ${ }^{1.1 . .1 . . .6}$ | 12500 | ．．．． | $\begin{array}{r} 22285 \\ 27 \\ 20 \end{array}$ | 250 | 570 |  | $\begin{array}{r}34785 \\ 63 \\ \hline 00\end{array}$ |  |
| 50122 | ．．．．．．．．．． |  | ． |  |  |  |  | 50122 |  |
| 50122 | 2760 | 12500 |  | 25005 | 250 | 570 | 3．） 29 | 94736 |  |
| ．．．．．．． | ．．．．．．．．．．． |  |  |  |  |  | 1630 | 1630 |  |
|  |  |  |  | 6700 | 3871 | 025 | 3686 | 14182 |  |
| 11426 |  |  |  | 33959 | 4230 | － 350 |  | 49965 |  |
|  | 1500 | 0 |  | 26800 | 2500 | 750 | 13 TT | 32927 |  |
| 3807 |  | ．．． | ．．． | 17500 | 2603 | 282 |  | 24192 |  |
| ． |  | ．．． |  | 52418 | 2675 |  | 4346 | 59439 |  |
| 15233 | 1500 | ．．．．．．．．．．． |  | 1373 77 | 15879 | 1407 | 11039 | 182435 |  |

## Statement of receipts and expenditure of FARMERS

|  | FARMERS' CLUBS <br> (By counties) | RECEIPTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 坒 |  | 里 | Total |
| champlain. |  |  |  |  |  |  |  |  |
| Parish of | Notre-Dame-du-Mont-Carmel.... | 77 | 3522 | 7700 | 3850 |  |  | 15072 |
|  | Ste-Anne-de-la-Pétade............. | 74 | 2150 | 21822 | 3700 | . | .... | 27672 |
|  | St-François-Xavirr-de-Batiscan. | 88. | 5000 | 11500 | 4400 | ......... | ..... | 20900 |
|  | St-Luc............................ ...... | 102 | ........ | 10200 | 5000 | ....... | ..... | 15200 |
|  | St-Maurice .............................. | 108 | . | 13500 | 5000 | ....... | ...... | 18500 |
|  | St-Narcisse.............. ........ ..... | 125 | - | 12500 | 5000 | ....... | ...... | 17500 |
|  | St-Prosper........ ......... ....... .... | 108 | 030 | 15350 | 5000 | 3814 | ....... | 24194 |
|  | St-Sérérin ......... ......... .......... | 76 | 626 | 7600 | 3800 | ....... | ....... | 12026 |
|  | St-Stanislas | 114 | 1495 | 36270 | 5000 | 1765 | ....... | 44530 |
|  | Ste-Thècle.......... | 41 | 1250 | 39604 | 2500 | , | ....... | 43354 |
|  | St-Théophile..... ..................... | 73 | 1578 | 8200 | 3650 | …… | ..... | 13428 |
|  | St-Tite....................... ... ....... | 232 | 672 | 46400 | 5000 | 156222 | . | 208294 |
|  | Y'isitation de Champlain...... .... | 114 |  | 21200 | 5000 |  | - ..... | 26200 |
|  | chanleroix. | 1332 | 16323 | 251846 | 36900 | 161801 |  | 486870 |
| Parieh of | L'Ass. de N.-D. des Eboulements | 101 |  | 33883 | 5000 |  |  | 38883 |
|  | Ste-Agnès..... ............. ........... | 111 | 465 | 54110 | 5000 |  | ......... | 59575 |
|  | St-Etienne de la Malbaie........... | 78 | $60 \quad 29$ | 7800 | 3900 | 60420 | ....... | 78149 |
|  | St-Fidèle...... .......... ...... ........ | 110 | 3650 | 15851 | 5000 |  |  | 24501 |
|  | St-Hilarion de Sheringtou ........ | 107 | 196 | 26560 | 5000 |  |  | 31756 |
|  | St-Irénée ..................... ...... | 82 | $20 \quad 13$ | 16400 | 4100 | 800 | ........ | 23313 |
|  | St-Louis de L'lle aux Coudres ... | 56 | 2650 | 8200 | 2800 |  | ........ | 13650 |
|  | St-Pierre, St-Paul de la B, St-Paul | 103 | 012 | 36331 | 5000 | ........ | .. | 413 43: |
|  | St-Placide............. . ................ | 81 |  | 8100 | 4050 | .... | ....... | 12150 |
|  | St-Siméon ...... . .......... ............ | 28 | 3053 | 3000 | 2500 | ........ |  | 8553 |
|  | St-Urbain, lst.......................... | 54 |  |  | 2700 | ......... |  | 2700 |
|  |  | 911 | 18068 | 210235 | 45050 | 61220 | ........ | 3345 73: |
| Parish of |  | 104 | ....... | 10600 | 5000 |  | ... .... | 15600 |
|  | St-Juachim...... .................. ..... | 38 |  | 380 | 2500 | 17076 | ........ | 23376 |
|  | Ste-Martine ......... ......... .. ...... . | 51 | 2078 | 5100 | 2550 | 2300 | ....... | 12028 |
|  | Ste-Philomène ........ .. ...... ....... | 37 | 2280 | 3700 | 2500 | 900 | ....... | 9380 |
|  | St-Urbain. |  | $5619 \mid$ |  |  |  |  | 5619 |
|  | chicoutim. | 230 | 9977 | 23200 | 12550 | 20276 | ....... | 66003 |
| Municipality | of Bagotville........... ........ | 62 | 4184 | 6200 | 3100 | ....... | ....... | 13484 |
|  | Bourget.......... ...... ..... | 30 | …… | 4800 | 2500 |  | ....... | 7300 |
|  | Chicoutimi.................. | $1: 1$ | 1440 | 11100 | 5000 | 232174 | ...... | 249714 |
|  | Grande-Baie | 101 | 4650 | 10100 | 5000 | ........ | ........ | 19750 |
|  | Kénogami............... .... ...n. ..... | 30 | 3836 | 5400 | 2500 |  | ....... | 11736 |
|  | St-Jean.. | 72 | 6653 | 7200 | $3{ }^{5} 5005$ | 54613 | ....... | 72066 |
|  | Tremblay ........ ............. | 113 | ${ }_{6} 118$ | 21600 | 50001 | 180155 | ....... | 218873 |
| Parish of | Notre-Dame de Laterrière.. | 126 | 7146 | 12600 | 5000 | 63542 | ...... | 88288 |
|  | St-Dominique de Jonquicres...... | 107 | 126 | 10700 | 50006 | 83070 | ....... | 78896 |
|  | St-Fulgence.................... | 26 | 150 | 3100 | 2500 | 33600 | ....... | 39350 |
|  |  | 778 | 343031 | 92800 | 39200 | 63:1 64 |  | 799457 |

CLUBS For the year ending the 31st december 1900

## EXPENDITURE



## Statement of receipts and expenditure of FARMERS'

| FARMERS' CLUBS (By counties) |  | RECEIPTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 范 | 先 |  | Total |
| Compton. |  |  |  |  |  |  |  |  |
| Municipality of | f Auckland.................. ........... . | 74 |  | 7500 | 3700 | 28707 |  | 29907 |
|  | Bury.. ................................... |  | 1058 |  |  |  | ....... | 1058 |
|  | Chesham.. ......... ........ ... ..... ..... | 75 |  | 7500 | 3750 | 5100 | ........ | 16350 |
|  | Slifton......... ......... ........ ........ | 95 | 1941 | 9500 | 4750 | 1800 |  | 17991 |
|  | Dilton \& Clinton | 47 | 130 | 4700 | 2500 | i83 87 | 448 | 26165 |
|  | Emberton......... | 126 | 2872 | 12500 | 5000 | ........ | ........ | 20472 |
|  | Hempden | 9. | 060 | ......... | 40 |  | ........ | 060 |
|  | Hereford.. | 92 | ....... | 9200 | 4600 | ..... | ....... | 13800 |
|  | Marston. | 74 | 1082 | 7400 | 3700 | 214.00 |  | 33582 |
|  | Marston South............. .... ...... | 32 | 922 | 3300 | 2500 | ......... | 4.04 | 7126 |
|  | Village of Megantic. |  | 6296 | -....0 |  | ........ |  | 6290 |
|  | Village of Waterville. | 25 | 494 | 3100 | 2500 | ......... | ........ | 6094 |
|  | Westbury....... |  | 5360 | ..... |  | - | . | 5360 |
|  | Whitton | 46 | 2212 | 4600 | 2500 | 9269 |  | 18581 |
|  | Winslow-North. | 59 | 3123 | 5900 | 2950 | 2041 | .... | 14014 |
|  | Winslow-South. | 31 ! | 9700 | 3100 | 2500 |  |  | 15300 |
| Parish of | St-Zénon de Piopolis.. | 55 | 1731 | 5500 | 2750 | 3042 | 1226 | 14249 |
|  |  | 831 | 36975 | 83900 | 43700 | 89746 | 2078 | 256399 |
|  | Detx-Montagnes. |  |  |  |  |  |  |  |
| Parish of | St-Angustin .......... ................ | 102 | 2091 | 10200 | 5000 | 16010 | ......... | 33301 |
|  | St-Benoit.. .............................. | 114 | .... | 11400 | 5000 |  | ....... | 16400 |
|  | St-Canut.. | 33 | 800 | 3300 | 2500 | 7206 | ........ | 13806 |
|  | St-Hermas .. ................ ........... | 109 | 732 | 10900 | 5000 | . |  | 16632 |
|  | St-Joseph du Lac..................... |  |  |  |  |  | 285 | 285 |
|  | Ste-Monique........ ........ . ......... | 103 | 3000 | 12400 | 5000 | ......... |  | 20400 |
|  | St-Placide... ........ ............. .... | 32 | ........ | 3200 | 2500 |  |  | 5700 |
|  | Ste-Scholastique ......... ............. | 83 | 3682 | 8300 | 4158 | 1000 |  | 17132 |
|  |  | 576 | 10305 | 59700 | 29150 | 24216 | 285 | 123656 |
|  | Dorchester. |  |  |  |  |  |  |  |
| Par sh of | St-Anselme., ........ ....... ........... | 106 | 3499 | 10600 | 5000 | 2540 |  | 21639 |
|  | St-Bernard.. ................. ..... ..... | 131 |  | 18700 | 5000 | 1575 | ... | 25275 |
|  | Ste-Claire ........ ........ ............. | 119 |  | 11900 | 5000 | ..... | ......... | 16900 |
|  | St-Edouard of Frampton........... | 71 | 9380 | 7100 | 3550 | - | ........ | 20030 |
|  | Ste-Hćnédine.. ........ ..... ... ....... | 86 | $28 \quad 24$ | 8900 | 4300 | 6000 | ......... | 22024 |
|  | St-Isidore. | 129 | 3341 | 12900 | 5000 | 050 | ......... | 21291 |
|  | Ste-Justine....... ........... ...... .... | 44 | 5490 | 4400 | 2500 | ......... | ........ | 12390 |
|  | St-Léon of Standon ................ | 32 | 296 | 3200 | 2500 | . ....... | ....... | 5996 |
|  | Ste-Marguerite ......... ...... .......... | 125 | 807 | 12500 | 5000 |  | ......... | 18307 |
|  | St-Maxıme............. .. ........ ..... | 38 | 3785 | 3800 | 2500 | 2850 |  | 12935 |
|  | St-Nazaire of Buckland............. | 31. | ....... | 3100 | 2500 | 047 | 256 | 5903 |
|  | St-Prosper of Watford............. | 66 | 1960 | 6600 | 3300 | ......... |  | 11860 |
|  | Ste-Rose of Watford ................. | 49 | 613 | 4900 | 2500 |  |  | 8013 |
|  |  | 1027 | 31995 | 108600 | 48650 | 13062 | 256 | 202563 |

CLUBS FOR THE YEAR ENDING THE 31st DECEMBER 1900

## EXPENDITURE



## Statement of receipts and expenditure of FARMERS'



CLUBS FOR THE YEAR ENDING THE 31ST DECEMBER 1900

## EXPENDITURE



## Statement of receipts and expenditure of FARMERS"



CLUBS FOR THE YEAR ENDING 31ST DECEMBER 1900

## EXPENDITURE

|  |  |  |  | - |  | \|cos |  | $\therefore$ ota 1 | REMARKS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{r}1518 \\ 080 \\ \hline . . \\ \hline\end{array}$ | -........... | 1600 | ............. | $\begin{array}{r}650 \\ 104 \\ \hline\end{array}$ | 3 7 7 0 | (17.61 | $\begin{gathered} 148 \\ 48 \\ 44 \\ 04 \\ 26 \end{gathered}$ | $\begin{array}{rl} 164 & 00 \\ 55 & 00 \\ 198 & 37 \end{array}$ | No Report. |
| 1598 | 4200 | 1600 | ...... ..... | 11050 | 1005 | 398 | 21886 | 41737 |  |
|  | 4800 |  | ........... | 8448 | 325 | 1239 | 552 | 15364 |  |
| .............. | 5755 | ... | ........... | 12050. |  | 468 | 4177 | 22470 |  |
| ............ | 45 2400 | ........... | ............. | 11855 3200 | $\begin{array}{r}1300 \\ .1 . . . . \\ \hline\end{array}$ | 1279 100 | 2496 | 21430 |  |
| ..... ...... |  |  |  | 32 7900 | .......... | 100 |  | 57 79 790 |  |
| -.... 395 | ${ }^{23} 00$ | 2100 | ...... ... . | 11200 | 900 | 393 | .... | 17288 |  |
| ........... | 8350 |  |  | 37300 | 370 | 1700 | 332 | 48052 |  |
| ............ |  | 2850 910 | 2200 | 122 58 50 | 1815 | 2172 |  | 19500 |  |
| ............... | 7675 | 910 5200 |  | 5250 19800 | 1815 | 735 792 | 140 | 165 257 92 |  |
|  | 4365 | ........ | .......... | 10310 | 525 | 342 | 609 | 16151 |  |
| ............ | , 3000 | ........... | ... | 77894 | 2716 | 1000 | 3457 | 880 67: |  |
| ........... | 4900 | -..... |  | 13500 | .......... | ........... | 7819 | 26219 |  |
| 395 | 48065 | 11060 | 2200 | 230985 | 7951 | 10220 | 19582 | 330458 |  |
|  |  |  | 3265 | 5200. |  |  |  | - 8465 |  |
| ............... | 2800. | 750 | 10 10 10 | 20236 10203 | 205 | 500 542 | 123 5640 | 24864 <br> 181 <br> 15 |  |
| .............. | ...... ...... |  |  |  |  |  | 33129 | 33129 | No Report. |
| ....... | ..... ........ | $\begin{array}{cc} 34 & 00 \\ 117 & 1 \end{array}$ | ... | ${ }_{96} 5340$ | ............ | 030 18 03 | ............ | $\begin{array}{r}87 \\ \hline 319\end{array}$ |  |
| ........... | 3408. |  | .... | 162 14 | 804 | 18 649 6 | ........... | ${ }_{210}^{23190}$ |  |
|  |  |  | 4175 | 14303 | 600 | 357 | 3629 | 23064 |  |
|  | 1250 | . |  | 7977 | 650 | 16171 | 2181 | 13695 |  |
| 290 |  | ${ }^{50} 75$ | 10 3500 | 5808. |  | 8 8 3 11 | 1781 | 9700 |  |
| . | 2350 | 5075 | 3500 1500 | ${ }^{179} 16394$ | 150 | 300 1650 | 1592 671 | 284 <br> 286 <br> 296 <br> 1 |  |
| 290 | 9808 | 20940 | 15440 | 129267 | 2409 | 8269 | 48746 | 235169 |  |

## Statement of receipts and expenditure of FaRMERS'



CLUBS For the year ending the 31st December 1900

## EXPENDITURE



## Statement of receipts and expenditure of FARMERS'



CLUBS FOR THE YEAR ENDING THE 3lst DECEMBER 1900

## EXPENDITURE



## Statement of receipts and expenditure of FARMERS＇

|  | FARMERS＇CLUBS <br> （By counties） | RECEIPTS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 烒 | － | 畕易 | Total |
|  | Maserimoság． |  |  |  |  |  |  |
| Parish of | St－Alexis <br> St－Ant．de la Rir．du Loup <br> St－Cbarles de Martigoche． <br> St－Didace <br> St－Joseph de Maskinongé． <br> St．．Justin <br> St－Léon le Grand <br> St－Paulin | 97 $\cdots$ $\ldots$ <br> 127 11 85 <br> 55 0 45 <br> 102 3 16 <br> 120 $\ldots$  <br> 156 70 00 <br> 102 $\cdots$ $\ldots$ <br> 104 54 00 | 97 147 140 60 00 120 4120 41209 156 102 102 104 100 | 48 48 50 20 27 50 50 50 50 50 50 50 50 00 50 | $7 \quad 13$ $\ldots 10$ 10 $\ldots \ldots \ldots$ 345 $\ldots \ldots .0$ $\ldots \ldots .$. | …．．．． ．．．．．．． ．．．．．． ．．．．．．．． |  |
|  | Megantic． | 86313346 | 119884 | 37600 | 36223 | ．．．．．．． | 207653 |
| Municipali | of Irland－North． | 62 ．．．．．．． | 6200 | 3100. | ．．．．．．．． |  | 9300 |
|  | Leeds ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1308285 | 13500 | 5000 | 9700 | ．．．．．．． | 36485 |
|  | Leeds－East | 71 ．．．．．．． | 7500 | 3550 | 9290 | ．．．．．． | 20340 |
|  | Thetford－North | 34 ．．．．．．．． | 3400 | 2500 | ．．．．．．．． | ．．．．． | 5900 |
|  | Thetford－South． | 31 ．．．．．．．． | 3200 | 2500 |  | ．．． | 5700 |
|  | Halifax－North．．．．．．．． | 45 ．．．．．．．． | 45 U0 | 2500 | 175 | ．．．．．．． | 7175 |
|  | Halifax－South ．．．．．．．．．．．．．．．．．．．．．． | 67 | 6700 | 3350 | ．．．．．．．． |  | $100 \cdot 50$ |
| Parish of | Ste－Anastrsie de Nelsou ．．．．．．．．．．．． Ste－Julie de Somerset | $\begin{array}{rrr}30 & 34 & 54\end{array}$ | ．．．． $30 \quad 00$ | 2500 | ．．．．．．．．．． | 0631 | 063 8954 |
|  |  | 47011739 | 48000 | 25000 | 19165 | 063 | 103967 |
|  | Missisquoi． |  |  |  |  |  |  |
| Municipality of Dunham．．．．${ }_{\text {Farnham－1．．．．．．．．．．．．．．．．．．．．．．．．}}^{\text {dest ．．．．．．．．．．．．．．．．．}}$ |  | ．． 13843 |  |  |  | ．．．．．．．． | 13843 |
|  |  | 67 25 90 <br> 101   | 6700 | 3350 |  |  | 12640 |
| Parish of Municipality | Notre－D．de Stanbridge．．．．．．．．．．． | 1011639 | 10200 | 5000 | 27261 | 2607 | 46707 |
|  | of Town of Bedford．．．．．．．．．．．．．．．．．．．．．． | 109 | 10900 | 5000 | 7844 | ．．．．．．．． | 23744 |
|  |  | 27718072 | 27800 | 13350 | 35： 05 | 2607 | 96934 |
|  | Moxtcalm． |  |  |  |  |  |  |
| MunicipalParish of | of Kilkenney ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 48 | $\begin{array}{ll}48 & 00 \\ 30\end{array}$ | 2500 | $\begin{array}{ll}11 & 11 \\ 9 & 91\end{array}$ |  | 84.11 |
|  | St－Alexis ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 30 72 <br> 108  | 3090 209 | 25 50 | 292 <br> 3 | 239 | 6031 30598 |
| Parish of | st－Esprit．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．． 293 |  |  |  |  | 293 |
|  | St－Jasques de L＇Achigau．．．．．．．． | $\begin{array}{llll}133 & 6186\end{array}$ | 13300 | 5000 |  | ．．．．．．．．． | 24486 |
|  | Ste－Julienne ．．．．．．．．．．．．．．．．．．．．．．．．．．． | $100 \quad 060$ | 15800 | 5000 | 375 | ．．．．．．．．． | 21235 |
|  | St－Lignori．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 64， 3200 | 6400 | 3200 | 300 | ．．．．．．．．． | 13100 |
|  | Ste－Marie Solumée ．．．．．．．．．．．．．．．．． | 1151200 | 11500 | 5000 | 4000 | ．．．．．．．． | 21700 |
|  | St－Donat．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 64 | 7509 | 3200 |  |  | 10709 |
|  |  | 66015237 | 83234 | 31400 | 6453 | 239 | 136563 |

CLUBS for the year ending the 31st december 1900

## EXPENDITURE



Statement of receipts and expenditure of FARMERS'


## CLUBS For the year ending the 31st december 1900

## EXPENDITURE

|  |  |  |  | ¢ | - |  |  | Total | REMARKS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 796 |  |  | 3000 | 10237 |  | 1472 |  | 15505 |  |
|  |  |  |  | 7200 |  |  | 4859 | 120 59 |  |
| ........... | 1250 | . | 1200 | 4950 |  | 100 | 1530 | 9030 |  |
| ........... |  |  | 6750 | 8558 | .... | 578 | 1000 | 16886 |  |
| . |  |  | 1211 | 6510. | ... | 1261 | 12692 | 216 74 |  |
| ........... | 800 | 3275 |  | 7750 | ..... | 900 | 2445 | 15170 |  |
| 796 | 2050 | 3275 | 12161 | 45205 | ..... ...... | 4311 | 22526 | 90324 |  |
|  |  |  | 3500 | 12932 | 161 \| | 322 |  | 16915 |  |
| 519 |  | 1900 |  | 3887 |  | 094 |  | 6400 |  |
|  |  | 18... | 2500 | 4000 | 595 | 081 | 003 | 7179 |  |
| ........... | 650 | 1800 | 18 | 4329 | 200 | 488 | 094 | 7561 |  |
| ........... |  | 1600 | 1800 | 3700 | ... ...... | 054 | 723 | 6277 |  |
| ............ | -:...... | 1600 | 23 50 | 5800 | ... | 519 | 881 | 8800 |  |
| ...........0 | - | 4875 | 2350 | 4500 | .......... | 275 050 | 3000 | 15000 |  |
| ... |  | 2350 |  | 4224 |  | 640 | 27 27 | 57 99 |  |
| ............. |  | ... | 3200 | 5400 | 018 |  | 3091 | 11709 |  |
| ........... |  | ...... ..... | 4000 | 10600 |  | 1296 | 1265 | 171 61 |  |
| ........... | 3200 | ..... ..... | 1250 | 10000 | ... .... | 1264 | 375 | 16089 |  |
| 519 | 3850 | $125 \quad 25$ | 18600 | 72572 | 974 | 5083 | 14690 | 128813 |  |
| ............ | 4200 |  | 3150 | 3100 | 1015 | 1763 | 2213 | 15440 |  |
| ............. |  |  | ........... | 10849 | 1210 | 851 | 9010 | 21920 |  |
| ..... | 2650 |  | ... | 11100 | 905 | 1025 | 7712 | 233 92, |  |
| ........... | ...... ..... | 5000 |  | 10800 | 795 | 2065 | 55 15 | 17194 8642 |  |
| ...... ..... | 6850 | 5000 | 3150 | 35849 | 3925 | 5703 | 26111 | 86588 |  |
|  | 3600 | 900 |  | 1600 | 300 | 500 | 1010 | 7910 |  |
| 046 |  |  |  | 3000 |  | 295 | 2159 | 5500 |  |
|  |  | 3000 |  | 6145. | ..... | 496 | 3006 | 12647 |  |
| ...... ..... | ..... ..... | 5100 | 3500 | $9300 \mid$ | ... .... | 634 | 925 | 19459 |  |
| ?........... |  |  |  |  |  |  | 36512 | 36512 |  |
|  |  |  | 5000 | 10200. | ........ |  |  | 15200 |  |
| ~.......... | 2500 |  | ......... | 17588. | ..... | 900 |  | 20988 |  |
| ............ | 4000 | ........... | ...... ..... | 7900. | .... | 1421 | 44.98 | 17819 |  |
| ............ |  |  | . | 5500 |  | 500 | 3083 | 9083 |  |
| ............ | $\cdot$ | 2500 | ....... | 6757 | 143 | ...... | 3000 | 12400 |  |
| .. |  | 6000 | .... ..... | 4000 | ........... | $+40$ |  | 10440 |  |
| ....... | 1500 |  | ...... ..... | 7785 | 518 | 1130 | 17 51, | 12084 |  |
| ............. | .. | 3000 | .... | 12500 | ....... | 665 | 1795 | 17960 |  |
| ... |  | 2300 | ... | 7900 | 835 | 4 | 4181 , | 15663 |  |
| ... | 6500 |  | ........... | 20365 | ........ | 250 | ,...... | 27.15 |  |
| $\cdots$ | 3250 | 1500 |  | 10900 | ......... | ............ | $1: 50$ | 109 00 | . |
| 046 | 21350 | 24300 | 8500 | 1314 40 | 1796 | 7678 | \| 63170 | 258280 |  |

## Statement of receipts and expenditure of FARMERS'

| FARMERS' CLUBS <br> (By counties) |  | RECEIPTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 茄 | - |  | Total |
|  | Otrata. . |  |  |  |  |  |  | - |
| Municipality of Amberst. |  | 35 |  | 3500 | 2500 |  |  | 6000 |
|  | Buckingham... | 67 | $0{ }^{5} 0$ | 6700 | 3350 |  | ......... | 10100 |
|  | Eardley......... | 31 | ........ | 3100 | 2500 | ........ | ....... | 5600 |
|  | Hartwell.. | 43 | 609 | 4300 | 2500 |  | ........ | 7409 |
|  | Joly | 109\| | 25600 | 10900 | 5000 |  | ........ | 41500 |
|  | Loranger | 31 | 1352 | 3875 | 2500 |  |  | 7727 |
|  | Ripon .... .... | 34 | 5394 | 3500 | 2500 |  |  | 11394 |
|  | Suffolk and Addington | 88 | $70 \quad 19$ | 8500 | 4400 |  |  | 20219 |
|  | Templeton-East. ....... |  | 050. |  |  |  |  | 050 |
|  | Thurso ......... ......... ............... | 41 | 1531 | 4500 | 2500 |  |  | 8531 |
| Parish of | L'Ange-Gardien ..................... | 27 | 2677 | 3000 | 2500 | 11020 |  | 19197 |
|  | L'Annonciation. ..................... | 31 | 5333 | 4100 | 2500 |  | ......... | 11933 |
|  | N.-D. de Bonsecours. | 36 | 1507 | 3600 | 2500 | 036 | ...... .. | 7643 |
|  | N.-D. de la Fourvière. | 32 | 020 | 3403 | 2500 |  | ........ | 59 23: |
|  | St-André A velia ......... ......... ..... | 34 |  | 3400 | 2500 |  |  | 5900 |
|  | Ste-Angélique.. .................. ..... | 204 | 5638 | 20400 | 5000 | 1968 | ........ | 33006 |
|  |  | 8435 | 56780 | 87078 | 45250 | 13024 | ......... | 202132 |
| Pontiac. |  |  |  |  |  |  |  |  |
| Municipality of | f Bristol............ | 38 | 600 | 5700 | 2500 |  |  | 8800 |
|  | Grand Calumet. |  | 4321 | 4000 | 2500 |  | ........ | 10821 |
|  | Onslow-South...... ........ ..... ..... | 79. | 15065 | 7600 | 3950 | 190 | ........ | 26805 |
|  | Témiscamingue.......... .............. |  | 7718. |  |  |  |  | 7718 |
|  |  | 1422 | 27704 | 17300 | 8950 | 190 | .. | 54144 |
|  | Portneuf |  |  | , |  |  |  |  |
| Parish of | N. D. des Anges de Montauban... | 59 | 1600 | 6000 | 2950 | 8066 |  | 18616 |
|  | St-Alban d'Alton......... ........... | 66 | 7300 | 6600 | 3300 | 80 | . | 17200 |
|  | St-Augustin de Demaure.......... | 111 | 1017 | 11100 | 5000 |  | ........ | 17117 |
|  | St Basile..... ... ......... ......... ..... | 63 | $15 \quad 50$ | 6300 | 3150 | 12400 | . | 23400 |
|  | St-Casimir............... ......... ..... | 133 | 2305 | 13300 | 5000 | 450 | .... | 21055 |
|  | St-Charles des Grondines. | 162 | 069 | 28800 | 5000 | ........ | -•• | 33869 |
|  | Ste-Christine................... ........ | 106 | ....... | 11835 | 5000 | 1500 | ....... | 18335 |
|  | Ste-Famille du Cap Santé......... | 41 | 918 | 4100 | 2500 | ........ | ........ | 7518 |
|  | St-Frs. de Salles de la P. au Tr.. | 62 | 397 | 6200 | 3100 |  | ........ | 96.97 |
|  | St- Gilbert............................ | 42 | 2500 | 4200 | 2500 | 11272 | ... | 20472 |
|  | St-J. Bte des Ecureuils ....... ..... | 35 | 2075 | 3500 | 2500 | 1000 | ........ | 9075 |
|  | Ste-Jeanne de Neuville.............. | 91 | 224 | 9100 | 4550 | ....... | ....... | 13874 |
|  | St-Joseph de Deschambault....... | 125 | 27.52 | 12500 | 5000 |  | ....... | 20262 |
|  | St-Léonard de Port Maurice........ | 138 | ........ | 13800 | 5000 | 4617 | ...... | 23417 |
|  | St-Raymond......... | 166 |  | 16600 | 5000 | - | ........ | 21600 |
|  | St-Rémi. | 100 | 1100 | 10000 | 5000 |  |  | 16100 |
|  | St-'Thuribe. | 99 | $40 \quad 12$ | 9900 | 4950 |  |  | 18862 |
|  | St-Ubalde.. | 123 | 2532 | 13510 | 5000 |  | ....... | 210.42 |
|  |  | 172230 | 30351 | 187345 | 74500 | 39305 | ...... | 331501 |

CLUBS FOR THE YEAR ENDING THE 31st DECEMBER 1900

## EXPENDITURE

|  |  |  |  |  | - |  |  | Total | REMARKS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3000 |  |  | 2000 | 480 | 520. |  | 6000 |  |
| :........... |  | .......... | .... ..... |  |  |  | 10100 | 10100 | No report. |
| ...... .... | 1025 |  | .......... |  |  |  | 5600 | 5600 |  |
| ... | 1925 | ........... | ... | 3240 | 300 | 456 | 1488 | 7409 |  |
| ............ |  |  |  |  |  | 550 | 41500 | 41500 | No report. |
| ............... | . | ........... ${ }^{33}$ | 25 00 | 3875 3432 |  | 550 $i 186$ |  | $\begin{array}{r}77 \\ 113 \\ \hline 18\end{array}$ |  |
| .............. | 2700 |  | $\begin{array}{ll}25 & 00 \\ 20 & 0\end{array}$ | 34 <br> 88 <br> 80 | ... | i1 86 | 4276 6719 | 113 202 19 |  |
|  |  | . |  |  |  |  | 050 | 050 |  |
|  |  |  |  | 4500 | 321 | 372 | 3338 | 85311 |  |
| ...... .... | 7930 |  |  | 8940 | 400 | 914 | 1013 | 1919 |  |
| ...... ..... |  | 7550 |  | 3421 |  | 462 | ${ }^{5} 000$ | 11933 |  |
| . | . ........ | .......... | 1950 | 3600 |  | 748 | 1345 | 7643 |  |
| ... ..... |  |  |  | 3193 | 350 | 624 | 1756 | 59.23 |  |
| ........... | 2500 |  |  | 3000 |  | 325 | 075 | 5900 |  |
| ........... | 5810 |  | .... .... | 21030 | 4105 | 715 | 1346 | 33006 |  |
| ........... | 23865 | 10852 | 6450 | 69031 | 5956 | 6872 | 79106 | 202132 |  |
|  |  |  | 1000 |  | 2150 | 375 | 2275 | 8800 |  |
| ,..... :..... | . ......... | 2100 | .......... | 4000. |  | 502 | 4219 | 10821 |  |
| ...... ..... | ........... | 19055 | ........... | .......... | 1271 | 2493 | 3986 | 26.80 .5 |  |
| ..... | .......... | ..... ...... | ........... | .......... |  |  | 7718 | 7718 |  |
| ........... | ............ | 21155 | 4000 | 4000 | 3421. | 3370 | 18198 | 54144 |  |
| ............ | 2500 |  |  | 14066 | 1000 | 150 | 900 | 18616 |  |
|  |  | 2500 |  | 4136 |  | 664 | 9900 | 17200 |  |
| $\cdots$ | 5000 |  | 350 | 11100 | 204 | ...... .... | 463 | 17117 |  |
| ........... |  |  | 2600 | 18700 |  |  | 2100 | 23400 |  |
| ............ | 2100 |  |  | 13300 | 600 | 500 | 4555 | 21055 |  |
| ............ | 2000 | 933 | 2000 | 26125 |  | 2811. |  | 33869 |  |
| ............ | 6500 |  |  | 9600 |  | 2235 |  | 18335 |  |
| ... | 2250 |  | ........ | 4100 |  | 472 | 596 | 7518 |  |
| ........... | 1500 |  |  | 6200 |  | 435 | 1562 | 9697 |  |
|  |  | 5000 |  | 15472 |  |  |  | 20472 |  |
|  | 1750 | 2200 | ........... | 4846 |  | 69 | $\because 10$ | 9075 |  |
|  |  | 3200 | . | 8463 |  | 1016 | 1195 | 13874 |  |
| $\cdots$ | 2800 | 1800 |  | 11625 | 1375 | 1694 | 958 | $20-5 \geqslant$ |  |
| ............. |  | 3000 | 825 | 18417 |  | 485 | 627 | 23417 |  |
| 430 |  |  | 3600 | 16600 | 174 | 796 | $\cdots$ | 21600 |  |
| ............ | ........... | 3700 | 2000 | 9748 | 60 | 52 | 540 | 16100 |  |
|  | $\cdots$ | 4050 | 3900 | 9900 | ... ........ | ${ }^{2} 121$ | 800 | 1886 |  |
|  |  | 2400 | 2800 | 12400 |  | 1028 | 3414 | 21042 |  |
| 430 | 26400 | 28783 | 18075 | 214798 | 3476 | 12619 | 2 E (1) 20 | 331501 |  |

## Statement of receipts and expenditure of FaRMERS'



CLUBS for the year ending the 31st december 1900

## EXPENDITURE



Statement of receipts and expenditure of Farmers

|  | Farmers' Clobs <br> (By counties) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 烒 |  |  | Total |
| Parish of | Rimocski.--Cont. |  |  |  |  |  |  |  |
|  | Ste-Flavie de Lepage... ....... ..... | 106 | 272 | 10600 | 5000 |  |  | 15872 |
|  | St-Gabriel .............. ............... | 70 |  | 700 | 3500 | ........ | ........ | 10500 |
|  | St-Germain de Rimouski | 76 | 082 | 7600 | 3800 |  | .. | 11482 |
|  | St-Jérôme de Matane................. | 51 | 2386 | 5200 | 2550 | 445 |  | 10581 |
|  | Ste-Luce de Lessard........ ........ | 39 | …). | 10745 | 2500 | ........ | 574 | 13819 |
|  | St-Mathieu de Rioux ........ ........ | 58 | 7433 | 5800 | 2900 |  | , | 16133 |
|  | St-Moiss.. ....... | 47 | 276 | 4700 | 2500 |  |  | 7476 |
|  | St-Pierre du Lac............. ........ | 89 | 4300 | 8900 | 4450 | ........ | . | 17650 |
|  | St-Simon de la Baie de Ha ! Ha !.. |  | 303 | .......... |  |  | ......... | 305 |
|  | St-Ulric de Matane.. ................. | 61 | ....... | 8600 | 3050 | 4999 | ........ | 16649 |
|  | St-Yalérín... ......... ....... ........ | 70 | ......... | 13900 | 3500 |  | ......... | 17400 |
|  |  | 1456 | 36891 | 183522 | 76100 | 46066 | 1626 | 344205 |
| Rouvilie |  |  |  |  |  |  |  |  |
| Parish of | N.-D. de Bonsecours ......... . ...... | 26 | 5700 | 3000 | 2500 | 1000 | ........ | 12200 |
|  | St-Auge-Gardien. | 69 | 5896 | 6900 | 3450 |  | ........ | 16246 |
|  | Ste-A ngèle. ....... | 105 | 1028 | 10500 | 5000 | 30331 | ....... | 46859 |
|  | St-Césaire. | 122 |  | 12200 | 5000 | 1550 | ......... | 18750 |
|  | St-Hilaire......... ........ ....... ..... | 31 | …… | 3100 | 2500 |  | ......... | 5600 |
|  | St-J...-B. de Rouville. | 104 | 4142 | 18800 | 5000 | 550 | ......... | 28492 |
|  | Ste-Marie de Monnoir.. | 139 | 3710 | 103395 | 5000 |  |  | 112105 |
|  | St-Michel de Rougemont | 104 | 067 | 10400 | 5000 | 2235 | 1158 | 18860 |
|  | St-Paul d'Abbotsford. ... |  |  |  |  |  | 295 | 295 |
|  | Saguenay | 700 | 20543 | 168295 | 33450 | 35666 | 1453 | 259407 |
| MunicipalitParish of | of Bergeronnes | 81 | 5561 | 8165 | 4050 | 140 |  | 17916 |
|  | Les Escoumains. | 83 | ......... | 8300 | 4150 |  |  | 12450 |
|  | Tadousac.......... | 141 | 598 | 14100 | 5000 | 4000 | 2560 | 26258 |
|  | St-Paui de Mille Vaches | 95 | 5236 | 9600 | 4750 |  |  | 19586 |
| Parish of Mission of | Magpie. | 25 | 2511 | 3110 | 2500 |  |  | 8121 |
|  | Shefforid. | 4251 | 13906 | 43275 | 20450 | 4140 | 2560 | 84331 |
| Municipalit | of Waterloo | 46 |  |  |  |  |  |  |
|  | Ely .... .. | 63 | 3220 | 6300 | 3150 | ........ |  | 12670 |
|  | (iranby ....... ....... ........ ....... |  | 8656 |  |  |  | ....... | 8656 |
|  | Stukely-North ................ ........ | 43 | ….... | 4300 | 2500 | ........ | ........ | 6800 |
|  | Ste-Cecil، de Milton | 35 | 2700 | 3700 | 2500 | ........ |  | 8900 |
|  | St-Valérien de Milton | 90. | 100 | 10550 | 4500 |  |  | 15150 |
|  | Village of Roxton-Falls | 71 | 061 | 10643 | 3550 |  | 211 | 14465 |
| Parish of | N.-D. de Bonsecours | 30 | 1385 | 3000 | 2500 | $50 \quad 25$ |  | 11910 |
|  | St-Alphonse ...... | 80 | 630 | 8000 | 4000 | 1000 | 1131 | 14761 |
|  | St-Joachim de Shefford.............. | 56 | ${ }^{6} 17$ | 5600 | 2800 | ....... |  | 9017 |
|  | Ste-Prudentienne |  | 2450 |  |  |  |  | 2450 |
|  |  | 514\|1 | 19819 | 57393 | 28000 | 6025 | 1342 | 112579 |

CLUBS FOR THE YEAR ENDING THE 31st DECEMBER 1900

## EXPENDITURE

|  |  |  |  |  | $\overbrace{\substack{\pi}}^{\infty}$ |  |  | Total | REMARKS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |



# Statement of receipts and expenditure of FARMERS＇ 

| FARMERS＇CLOBS <br> （By counties） |  | RECEIPTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ｜c｜c | 会品 | 苟 |  |  | Total |
| Sherbrooke． |  |  |  |  |  |  |  |  |
| Municipality of | Ascot <br> Orford <br> St－IRoch d＇Orford．．．．．．．．．．．．．．．．．．．．．． | 86 | 3799 | 8900 | 4300 |  |  | 16999 |
|  |  | 37 | 791 | 3700 | 2500 |  | 3616 | 10607 |
| Parish of |  | 271 | 12486 | 3000 | 2500 | ．．．．．． |  | 17986 |
|  |  | 1501 | 17076 | 15600 | 9300 | ．．．．．．．． | 3616 | 45592 |
| Soulaxges． |  |  |  |  |  |  |  |  |
| Parish of | St－Clet． <br> St－Ignace du Côteau du Lac．．．．．． <br> St－Joseph de Soulanges．． <br> St－Polycarpe <br> St－Thélesphore <br> St－Zotique．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 91 | 856 | 12326 | 4550 | 195 |  | 17927 |
|  |  | 77 | 762 | 16100 | 3850 | 600 | ．．．．．．．．． | 21312 |
|  |  | 65 | 1099 | 6500 | 3250 | 375 |  | 11224 |
|  |  | 111 | 5637 | 11200 | 5000 | 26675 | ．．．．．．．． | 48512 |
|  |  | 110 | 3019 | 11100 | 5000 | 9700 | ．．．．．．．．． | 28819 |
|  |  | 37. | ．．．．．．．．． | 3700 | 2500 | ．．．．．．．． | ．．．．．．．．． | 6200 |
|  |  | 491 | 11373 | 60926 | 24150 | 3545 | ．．．．．．．．． | 133994 |
| Staystead． |  |  |  |  |  |  |  |  |
| Municipality of | f Barford． $\qquad$ <br> Barnston $\qquad$ <br> Coaticook $\qquad$ <br> Hatley $\qquad$ | 31. | 745 | 3200 | 2500 |  | ．． | 6445 |
|  |  | 41 | 2521 | 4100 | 2500 | 150 | ．．．．．．． | 9271 |
|  |  | 97 | 769 | 9700 | 4850 | 1550 |  | 16869 |
|  |  | 40 | ． | 4000 | 2500 | ． | 337 | 6837 |
|  |  | 209 | 4035 | 21000 | 12350 | 1700 | 337 | 39422 |
|  | St－Hyacintie． |  |  |  |  |  |  |  |
| Parish of | N．－D．de St－Hyacinthe <br> La Présentation <br> St－Barnabé <br> St－Charles $\qquad$ <br> St－Damase． $\qquad$ <br> St－Denis <br> St－Hyacinthe le Confesseur．．．．．．．．．． <br> St－Judes <br> Ste－Marie－Madeleine $\qquad$ <br> St－Thomas d＇Aquin． | 145. |  | 14500 | 5000 |  |  | 19500 |
|  |  | 152 | 2500 | 29837 | 5000 | ． |  | 373 37 |
|  |  | 83 | ．．．．．．．． | 8200 | 4100 | ．．．．．．． | ．．．．．．．． | 12300 |
|  |  | 114 | 055 | 11400 | 5000 | ．．．．．．．． | ．．．．．．． | 16455 |
|  |  | 181 | ．．．．．．． | 105002 | 5000 | 2100 | ．．．．．． | 112102 |
|  |  | 54 | 117 | 8050 | 2700 | ．．．．．．． | ．．．．．．． | 10867 |
|  |  | 100 | 613 | 10000 | 5000 | ．．．．．．．． |  | 15613 |
|  |  | 102 | 125 | 10200 | 5000 | 225 | ．．．．．．．． | 15550 |
|  |  | 101 | ．．．．．．．． | 36425 | 5000 | ．．．． |  | 41425 |
|  |  | 105 |  | 10500 | 5000 | 3000 |  | 18500 |
|  |  | 1136 | 3410 | 244114 | 46800 | 5325 | ．．．．． | 2996 49＊ |

CLUBS For the year ending the 31st december 1900

## EXPENDITURE



## Statement of recelpts and expenditure of FaRMERS'



CLUBS FOR THE YEAR ENDING THE 31ST DECEMBER 1900

## EXPENDITURE

|  |  |  |  |  |  |  |  | Total | REMARKS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  | 7050 |  |  | ..... ..... |  | 1200 | 1979 | 10229 |  |
| 500 |  | 3500 | 1700 |  |  | 350 | 250 | 6300 |  |
| .... ...... | 2300 | - 0 | 1000 | 11200 | 400 | 1400 | 2012 | 18312 |  |
| ........... | 8000 | 900 | $\ldots$ |  | 365 | 927 | 893 | 11085 |  |
| 253 | 1500 | 2300 | 1000 | ..... ...... |  | 408 | 1689 | 7150 |  |
| 753 | 18850 | 6700 | 3700 | 11200 | 765 | 4285 | 10349 | 56602 |  |
|  | 2000 |  |  | 11700 |  | 247 | 8145 | 2¢0 92 |  |
| 1000 | 2050 | ...... ..... | ...... ..... | 8100 |  | 350 | 500 | 12000 |  |
| 270 | 1900 |  | ............ | 4371 | 200 | 473 |  | 7214 |  |
|  | 3324 | 525 | .. | 8556 | 905 | 1066 | 1754 | 16130 |  |
| ...... ..... | 2677 |  | ....... .... | 3784 | 500 | 565 | 2123 | 9649 |  |
| 3160 | ............ | ........... | .......... | 13317 | 180 | 1933 , | 1310 50 | 19900 |  |
| ... |  |  |  |  |  |  | 5030 | 5030 |  |
| ........ | 3000 |  | $\cdots$ | 8300 |  | 512 | 278 | 12090 |  |
| ....... |  | 3000 | ... | 10400 | 787 | 400 | 1567 | 16154 |  |
| 4430 | 14951 | 3525 |  | 68528 | 2572 | 5546 | 20707 | 120259 |  |
| ........ |  |  | 1200 | 3600 |  | 300 | 1300 | 6400 |  |
| ........... | 2500 | ......... ... | ........... | 2883 | 600 | 217 | ........- ... | 5600 |  |
| ......... | 3500 | ........ ... | . | 8117 | 600 | 1283 | 17.3 | 13500 |  |
| ............ | 5400 |  |  | 9858 | - | 1184 | 1735 | 18177 |  |
| ..... | 400 | ............. | 1700 | 3500 | ............ | 400 | 25 500 500 | 85 500 500 | No longer in operst. |
|  |  |  | 5800 | 10030 |  | 2709 | 414 | 18923 | No longer in operat. |
|  | . ..... | 1600 | 1025 | 9973 | .......... | 201 | 43.38 | 17137 |  |
| ...... .... |  | 2550 |  | 10100 | .... .... |  | 2450 | 15100 |  |
| 6252 | 2500 |  |  | 25500 |  | 777 |  | 35029 |  |
| ... | 3000 | .......... |  | 8184 | 150 | $\begin{array}{llll}9 & 17\end{array}$ | 4288 | 16539 |  |
| ....... |  |  | 2600 | 3255 |  | 6780 | 1797 | 8323 |  |
| 009 | 2000 | 900 |  | 3043 | ........... | $\begin{array}{lll}2 & 50 \\ 5 & 0\end{array}$ |  | 6202 |  |
| .... | ........ | 6175 | ..... ..... | 9800 | ..... .... | 521 | ....... | 16496 |  |
| ........... | ........ ... |  |  | $\begin{array}{r}34 \\ \hline 100\end{array}$ | 045 |  | 2500 | $\begin{array}{r}59 \\ \hline 83 \\ \hline 88\end{array}$ | . |
| ............ | ............ | 11480 | ............ | 36153 | $\begin{array}{lll}0 & 45 \\ 5 & 08\end{array}$ | 700 |  | 48378 |  |
| ........... |  | 1735 | ............ | 68 100 100 | 508 8 8 | 744 403 | 47 <br> 25 <br> 25 | 180 <br> 164 <br> 162 <br> 1 |  |
| ......... | ${ }_{25} 50$ |  | .......... | 100 58 58 50 | 8 | 403 | 2594 2661 | $\begin{array}{lll}164 & 22 \\ 111 & 11\end{array}$ |  |
| ............... | 2300 1900 |  |  | 58 135 137 | 300 $\ldots . . . . . . . ~$ | 5 86 | 36 361 3 | $\begin{array}{lll}111 & 11 \\ 212 & 41\end{array}$ |  |
| ........ |  |  | 4840 | 135 | …… ... | 58 | - |  |  |
| 6261 | 29550 | 24440 | 17165 | 183585 | 2478 | 11862 | 32168 | 307509 |  |

## Statement of receipts and expenditure of FARMERS'



CLUBS FOR THE YEAR ENDING 31st DECEMber 1900

## EXPENDITURE



Statement of receipts and expenditure of FARMERS'


CLUBS FOR THE YEAR ENDING THE 31st DECEMBER 1900

## EXPENDITURE



# Statement of receipts and expenditure of FARMERS' 

 RECAPITULATION| FARMERS' ULUBS |  | RECEIPTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COUNTIES |  |  |  |  | 㕍 |  | Deficit in 1900 | Toial |
| Argentenil. | 1 | 66 | 5883 | 6600 | 33001 |  |  | 15783 |
| Artbabaska. | 15 | 1290 | 2498 | 131500 | 61400 | 44023 | 6788 | 26.686 |
| Bagot. | 10 | 973 | 14227 | 111277 | 45150 | 3249 | 460 | 174363 |
| Bealace | 22 | 1978 | 82543 | 256210 | 89200 | $136 \pm 02$ | 3048 | 567403 |
| Beauharnois | 4 | 188 | 4685 | 19300 | 10350 | 1000 |  | 33335 |
| Bellechasse | 11 | 711 | 31919 | $80100 \mid$ | 36500 | 7830 | 1255 | 157604 |
| Berthier | 10 | $89^{\prime}$ | 18168 | 965 (60 | 41100 | $142 \times 3$ | 3477 | 173528 |
| Bonarentur | 9 | 577 | 27684 | 94475 | $30 \pm 50$ | 30283 | .... | $18: 892$ |
| Brome | 2 | 64\| | 35 29 | 25485 | 5000 | 600 | 60122 | 94736 |
| Chambly | 5 | 509 | 7949 | 95859 | 23050 | 45129 | 10448 | 182435 |
| Champlain........ .......... ...... | 13 | 1332 | 16323 | 251846 | 56900 | 161801 | ............ | 486870 |
| Charlevoix | 11 | 911 | 18068 | 210235 | 45050 | 61220 |  | 334573 |
| Chateauguay | 4 | 230 | 99 77 | 23200 | 12550 | 20276 |  | 60003 |
| Cbicoutimi... | 10 | 778 | 34303 | 92800 | 39200 | 633154 |  | 799457 |
| Compton............ ......... ......... | 13 | 831 | 36975 | 83900 | 43700 | 89746 | 2078 | 256399 |
| Tro Mountain's............ ....... | 7 | 576 | 103 03: | 59700 | 29150 | 24216 | 285 | 123656 |
| Dorchester | 13 | 1027 | 319 95 | 108600 | 48650 | 13062 | 256 | 202563 |
| Drummond | 8 | 7391 | 22595 | 80923 | 31350 | 55908 | 055 | 200831 |
| Gaspé... | 4 | 140 | 31278 | 17150 | 10000 | 4804 |  | - 63232 |
| Hochelaga | 1 | 46 | 1162 | 4600 | 2500 | 100 | ..... ...... | 18823 |
| Huntingdon ........................ |  |  | 19£ 97 |  |  |  | - | 19497 |
| Ibervile...... .......................... | 6 | 616 | 31544 | 91855 | 26200 | 15890 | . | 145489 |
| Jacques-Cartier........... ............ | 3 | 243 | 4237 | 25000 | 12500 |  | - | 41737 |
| Joliette. | 13 | 1499 | 22288 | 170120 | 59800 | 77142 | 808 | 330458 |
| Kamouraska | 12 | 1219 | 20631 | 146585 | 50750 | 13667 | 3536 | 235169 |
| Lake St. Jobn. | 15. | 1464 | 733231 | 223703 | 83250 | 190959 | 5835 | 577070 |
| Laprairie............. ................. | 3 | 119 | 147.44 | 12100 | 7550 | 450 | 1185 | 36079 |
| L'Assomption ........ ......... ...... | 8 | 674 | 23208 | 68100 | 33150 | 8910 | 379 | 133747 |
| Laral................. ................. | 5 | 497 | 9856 | 63705 | 22400 | $57 \quad 25$ | 3637 | 105323 |
| Levis.. | 7 | 475 | 94231 | 48100 | 24250 | 8715 | 410. | 90898 |
| L'Islet....... ............. .............. | 10 | 824 | 21019 | 117745 | 38950 | 17723 | 496 | 195933 |
| Lotbinière... | 13 | 1487 | 41728 | 1746 971 | 59600 | 5454 : | 2970 | 333537 |
| Maskinongé ........................... | 8 | 863 | 13946 | 119884 | 27600 | 36233 | ...... | 207653 |
| Ségantic. | 8 | 470 | 11739 | 48000 | 25000 | 19165 | 063 | 103967 |
| Missisquoi .............................. | 3 | 277 | 18072 | 27800 | 13350 | 35105 | 2667 | 96934 |
| Montcalm ...................... ....... | 8 | 660 | 15237 | 832 34 | 31400 | 6453 | 239 | 136563 |
| Montmagny...............e. . ........ | 6 | 440 | 20334 | 46970 | 23000 | 985 | 035 | 903 24 |
| Montmorency ......................... | 12 | 619 | 18173 | 68100 | 35300 | 7063 | 177 | 128813 |
| Napierville......... ........... ...... | 5 | 463 | 18038 | 46600 | 20950 | 1000 |  | 86588 |
| Nicolet | 15 | 1028 | 66572 | 106900 | 64000 | 29553 | 1255 | 258280 |
| Ottawa | 15 | 843 | 56780 | 87078 | 45250 | 13024 |  | $20: 132$ |
| Pontiac. | 3 | 142 | 27704 | 17300 | 8950 | 190 | . . .... | 51144 |
| Portneuf. | 18 | 17291 | 30351 | 187345 | 74500 | 393031 |  | $3: 31501$ |
| Quebec | 5 | 412 | 33919 | 41700 | 18050 | 1500 | . | 95169 |
| Richelicu.. | 9 | 850 | 3267 | 133601 | 38550 | 3651 |  | 179069 |
| Itichmond | 31 | 191 | $6+771$ | 25005 | 10000 | 11627 |  | 51109 |
| Rimouski. | 23 | 1456 | 368891 | 183522 | 76100 | 46066 | 1626 | 341205 |
| Rouville | 8 | 700 | 20543 | 168295 | 33450 | 35666 | 1453 | 259407 |
| Saguenay | 5 | 425 | 13906 | 43275 | 20450 | 41 -40 | 2560 | 84331 |
| Sheftord | 9 | 514 | 19819 | 57393 | 28000 | 6025 | 1342 | $1125 \quad 79$ |
| Sherbrooke........ ........ ......... | 3 | 150 | 17076 | 15600 | 9300 | ......... | 3616 | 45592 |

CLUBS FOR THE YEAR ENDING THE 3lst DECEMBER 1900 BY COUNTIES

## EXPENDITURE



## Statement of receipts and expenditure of FARMERS* RECAPITULATION

| FARMERS' CLUBS |  | RECE1PTS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| counties |  |  |  |  | 㵄 |  | Deficit in 1900 | Total |
| Soulanges | 6 | 491 | 11373 | 60926 | 24150 | 37545 |  | 133994 |
| Stanstead ... | 4 | 209 | 4035 | 21000 | 12350 | 1700 | 337 | 39422 |
| St-Hyacinthe. | 10 | 1136 | 3410 | 244114 | 46800 | 5825 |  | 299649 |
| St-John...... | 5 | 272 | 11262 | 27200 | 15000 | 3140 |  | 56602 |
| St-Maurice | 8 | 634 | 16048 | 71100 | 31000 | 2097 | 014 | 20259 |
| Témiscourta. | 19 | 1445 | 33500 | 166850 | 74550 | 24370 | 8239 | 307509 |
| Terrebonne.. | 11 | 1091 | 43819 | 119400 | 50700 | 52210 | 314 | 266443 |
| Three-Rivers | 1 | 99 | 1934 | 10300 | 4950 |  |  | 17184 |
| Vaudreuil | 3 | 295 | 9317 | 29500 | 12750 |  | 3184 | 62176 |
| Verchères. | 6 | 6091 | 37267 | 62900 | 27400 | 9310 |  | 136877 |
| Wolfe. | 13 | 1054 | 12767 | 120630 | 52350 | 30205 | 411 | 216383 |
| Yamaska | 10 | 857 | 10483 | 103075 | 41600 | 31990 | 6745 | 193893 |
|  | 530 | 43392 | 1370611 | 5534947 | 2078750 | 2242807 | 141745 | 11368860 |

CLUBS FOR THE YEAR ENDING 31st DECEMBER 1900 BY COUNTIES

## EXPENDITURE

| $\begin{gathered} \text { Deficit } \\ \text { in } \\ 1898 \end{gathered}$ |  |  | $\begin{aligned} & \text { N } \\ & \text { W } \\ & \text { A } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  |  |  |  | Total | REMARKS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ....... | 18075 |  | 4300 | 90134 | 3072 | 70 04 | 11409 | 1339 94! |  |
| 490 | 5200 | 2500 | 3045 | 169 70 | 1432 | 32 89 | 64 961 | 39422 |  |
| 413 | 35355 | 3350 | 4200 | 241499 | 725 | $8541{ }^{\prime}$ | 5566 | 299649 |  |
| 753 | 18850 | 6700 | 3700 | 11200 | 765 | 4285 | 10349 | 56602 |  |
| 4430 | 14951 | 8535 |  | 68528 | 2572 | 5546 | 20707 | 120259 |  |
| 6261 | 29550 | 24440 | 17165 | 183585 | 2478 | 11862 | 321 68 | 307509. |  |
| 594 | 15325 | 2745 | 34952 | 181608 | 1546 | 84 38: | 21235 | 266453 |  |
|  |  | 10700 | . | 4100 |  | 1307 | 1077 | 17184 |  |
| 835 | 8250 | ........ | 2750 | 366 37\| | ........ | 19 62 | 11742 | 62176 |  |
| 331 | 19100 | 2900 | . | 69175 | 600 | 4710 | 40061 | 136877 |  |
| 1694 | 19805 | 3000 | 24617 | 138630 | 2975 | 7658 | 18004 | 2163 83! |  |
| 1339 | 22750 | 27150 |  | 123673 | 2966 | 11422 | 4593 | 1938 93 |  |
| 117260 | 892279 | 567793 | 677727 | 7008639 | 223598 | 413697 | 1467867 | 113688 60 |  |

## Statement of receipts and expenditure of AGRICULTURAL.

| $\begin{gathered} \text { DESIGNATION } \\ \text { of } \\ \text { SOCIETIES } \end{gathered}$ | RECEIPTS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | $\begin{aligned} & \text { 荡 } \\ & \text { 若 } \\ & \text { Bied } \end{aligned}$ |  | Total |
| Argente | 221 | 4006 | 41775 | 63830 | 1500 | 19253 |  |  | 1432 | 131796 |
| Artbabask | 510 | 39938 | 52200 | 56160 |  | 5479 |  | 4500 |  | 157277 |
| Bagot. | 428 | 11201 | 42800 | 57650 |  | 5080 |  | 336 |  | 117067 |
| Beauce Dir. | 257 |  | 26000 | 37582 |  |  |  | 2500 | 679 1100 | 66761 1100 |
| Beauharnois | 310 |  | 31100 | 45320 |  | 4250 |  | 20950 | 12405 | 114025 |
| Berthier | 200 |  | 40600 | 64460 |  | 14640 | 1500 | 12200 |  | 133400 |
| Bonaventure No 2 |  | 17716 |  |  |  |  |  |  |  | 17716 |
| Brome | 404 | 2151 | 79600 | 58340 |  |  |  | 147185 |  | 287276 |
| Chambly |  | 9366 | 4800 |  |  | 4600 |  | 52375 | 4805 | 75946 |
| Champlain | 390 | 1408 | 40100 | 58760 |  |  |  |  |  | 100268 |
| Charlevoix Div. | 125 | 12028 | 25000 | 40310 |  |  |  |  |  | 77338 |
|  | 140 | 160 | 27825 | 37860 |  |  |  | 2500 |  | 70345 |
| Chateauguay | 266 |  | 33450 | 50882 | 300 | 26515 |  | 4570 | 34545 | 150362 |
| Chicoutimi. | 257 | 5962 | 41400 | 62750 |  |  |  | 9550 |  | 119662 |
| Compton No | 124 |  | 14000 | 25380 |  | 52800 | 8050 | 54005 | 114762 | 268997 |
| " No 2 | 175 | 3426 | 21300 | 32298 |  |  |  | 2550 |  | 59574 |
| Two-Mountains | 279. | 41248 | 40200 | 62720 |  |  |  | 46328 |  | 190496 |
| Drummond. | 100 | ........ | 10000 | 14660 |  |  |  | 37900 | 399 | 62959 |
| Gaspé No 1 Dir. A | 40 | 10611 | 4100 | $60 \%$ |  |  |  | 348 |  | 21135 |
| "No2 " |  | 5883 |  |  |  |  |  |  |  | 5883 |
| " No 1 " B. |  | 150 |  |  |  |  |  |  |  | 150 |
| " No 2 |  | 6162 | 1520 |  | 150 |  |  |  | 022 | 7854 |
| Hochelaga | 154 | 174259 | 36100 | 54576 |  |  |  | 6502 |  | 271437 |
| Huntingdon Div. A | $36{ }^{5}$ |  | 41700 | 33110 |  | 76237 | 13775 | 14465 | 6741 | 186028 |
|  | 232 |  | 27725 | 37100 | 500 | 25600 | 2500 | 975 | 17500 | 111900 |
| Iberrille | 191 | 13338 | 35625 | 57030 |  |  |  |  | 2665 | 108658 |
| Jacques-Cart | 362 | 65781 | 49700 | 62300 | 3600 | 19215 | 7500 | 9940 |  | 218086 |
| Joliette No 1 | 201 | 64058 | 20300 | 29230 |  |  |  | 23150 | 10779 | $83459$ |
| Kamouraska |  | 6838 |  |  |  |  |  |  |  | 8838 |
| Lake St-John | 598 | 27587 | 59800 | $525 \quad 50$ |  |  |  | 2300 |  | 142237 |
| Laprairie | 187 |  | 41900 | 64880 |  |  |  | 2500 |  | 109280 |
| L'Assomption | 254 | 30325 | 40100 | 62870 |  |  |  | 565 |  | 133860 |
| Laval. | 13.4 |  | 32.400 | 52360 |  |  |  | 1400 | 17631 | 103791 |
| Levis |  | 2410 |  |  |  |  |  |  |  | 2410 |
| L'Islet. | 110 | 12; 00 | 22000 | 45510 |  |  |  | 200 |  | 70310 |
| Lotbiniere No |  | 184 |  |  |  |  |  |  |  | 184 |
| Maskinongé | 203 | 11133 | 39900 | 64224 |  |  |  | 090 |  | i153 47 |
| Mégantic No | 139 |  | 55000 | 31090 | 900 | 8780 |  | 16600 |  | 112370 |
| " No | 20.3 | 4268 | 20200 | 29170 |  | 4900 |  | 6000 |  | 64538 |
| Missi:quoi | 40:3 |  | 61500 | 583711 | 5675 | 77235 | 2600 | 31405 | 108258 | 345083 |
| Montralm. | 2715 |  | 1150 | $62 \cdot 111$ |  |  |  |  | 5476 | 109186 |
| Montmagny | 115 | 28700 | $3 i 000$ | 5115 |  |  |  | 10950 |  | 121820 |
| Montmorency liv. | 125 | 362 | 25000 | 40: 10 | 1800 | 400 |  | 3687 |  | 71559 |
|  | 155 | 15108 | 20500 | $3: 490$ |  |  |  | 5514 |  | 72612 |
| Nupierville | 257 | 23096 | 33500 | 51134 |  | 8875 | 2975 | 951 |  | 120531 |
| Nicoles........ | 498 |  | 61900 | 5.520 |  |  |  |  |  | 120420 |
| Sttawa Nol Div. | 319 | 202 | 34050 | 21010 | 10942 | 21405 | 3000 | 3500 |  | 941 ¢9 |
| "N No ${ }^{2}$ " | 33 |  | 4000 | 6110 | , |  |  |  |  | 10110 |
| "Nol " |  |  |  |  |  |  |  |  | 27037 | 27037 |
| "Noz " | 73 | 135) 53 | 8400 | 12654 |  |  |  |  |  | 34607 |

SOCIETIES FOR THE YEAR ENDING THE 31sT DECEMber 1900

EXPENDITURE


Statement of receipts and expenditure of AGRICULTURAL


SOCIETIES FOR THE YEAR ENDING 31st DECEMBER 1900

## EXPENDITURE



## COUNCIL OF AGRICULTURE

PROCEEDINGS of the Council of Agriculture during the fiscal year 1900-01, approved by the Lieutenant-Governor-in-Council.

SETTING of 24th. October 1900.

First Resolution :-That Messrs Aug. Dupuis and Robert Ness be reelected President and Vice-President, respectively.

Second Resolution :-That the different Committees be composed as follows:

Committee on Agricultural Merit :-Messrs Ness, Garneau, Talbot, Draper, Hunter and Hotte.

Committee on Agricultural and Veterinary Schools :-Messrs Bourassa, Ness, Dawes, Talbot, Garneau and Dubord.

Committee on the Journal of Agriculture:-Messrs Walker, Draper, Pouliot, Gouin, Bourassa, Boily and Grignon.

Committee on Herd-Books :-Messrs Ness, Dawes, Pilon, Decarie and Garneau.

## OCT. OUELLET.

Secy of the Council of Agriculture.

SETTINGS of 23rd and 24th January 1901.
Second Resolution :-That the Council is of opinion that it is advisable to grant to the County of Montmagny model farm association the right to sell the said model farm, on such conditions as the Governmeut may deem proper.

Third Resolution:-That article 53 of the regulations of the Council of Agriculture be amended by adding thereto the following paragraph :
"However, when an agricultural society shall decide to purchase registered sires or to grant premiums to the owners of such animals for keeping the same, instead of holding an exhibition, the total amount of its members' subscriptions may be reimbursed in fodder seed or artificial fertilizers at the discretion of the Board of Directors of such Society."

Fourth Resolution
2. That the law respecting Agriculture and the regulations of this Council, as ameuded to date, be translated and published in English as soon as possible for the use of this Council and of the directors of the agricultural and horticultural societies.

E'eventh Resolution.-That the following regulation be adopted :
Article 54a.-The annual premiums for keeping animals for breeding mentioned in article 53, may be granted for two consecutive years and on the conditions laid down by the directors. When these premiums are granted, the Society may open in the spring, in the month of May, a competition of breeding stock, both in horses and cattle, to which these bonuses may be given, and award prizes payable out of the Government grant. The competitors may reside nutside the county, but no competitors shall be entitled to a prize or to a premium unless the animal, for which a premium is allowed and of which he is the owner, be kept within the Society's limits for breeding purposes during the following season or during the two following seasons, if he be granted a premium to that effect. These animals must have a certificate of pedigree, duly rerised by a veterinary sargeon named by the Department of Agriculture and further, in the case of stallions, a certificate in the following form.

## CERTIFICATE OF INSPECTION OF STALLIONS.

In accordance with the regulations of the Council of Agriculture which govern the employment of the sums of public money appropriated for the encouragement of agriculture by the purchase of STALLiONS by AGRICULTURAL SOCIETIES.

I, the undersigned, veterinary surgeon, duly authorized by the Department of Agriculture to examine such stallions, hereby certify that

I hare examined for Agricultural Society No......of the county of a stallion known under the name of and measuring feet inches, of which the description is as follows:

Aged $\qquad$ years and, in my opinion, this horse is sound and has no hereditary defect.

I have examined the certificates of pedigree and found them correct and I certify that this stallion has been properly registered in volume . page................ of the STUD BOOK of as appears by the certificate in question.

I declare further that in my opinion this horse possesses individual merit in his shape, bone structure and gait to recommend it to the agricultural societies of the province, for the improvement of horses.

Given at

Veterinary Surgeon.
These certificates should be renewed annually.
The society should pass a contract in writing with the owner of the animal for which a premium is given. If the animal be a stallion, this writing may be drawn up in the manner following :

CONTRACT FOR A STALLION.
Beetween Agricultural Society No......... of the County of duly represented by
......................residing in the of.
...... .....in the county
authorized to the effect hereof by a resolution adopted by the board of directors of the said society on the day of the month of $\qquad$ one part.

And Sir .residing of the other part :
It is agreed as follows:
Art. 1-The said binds himself to keep within the territorial limits of the aforesaid society, for breeding purposes,
a stallion known under the name of.
aged years, registered in volume page $\qquad$
of the Stud Book 'during two years
from ....................... ........ .........that is to say, from the first of May to the first of October in each of the said two years.

Art. 2-The said.. ..... .............. .........declares that the said horse is sound and without any hereditary defect; that he will have the said horse examined next year in the beginning of the month of May by a veterinary surgeon named by the Department of Agriculture and that he will then furnish to the society a certificate from said surgeon, showing that the horse is sound and fit for breeding purposes. If the surgeon establishes that said horse is not sound and fit for breeding parposes, the said will not be entitled to any premium for the year one thousand nine hundred

Art. 3.-The said binds himself to properly feed and care for the said horse.

For mares belonging to members of the Society, the charge for serring shall not exceed.................. dollars; such mares to be served in preference to those of strangers to the society. The number of services is limited to daily.

Art. 4.-In consideration of the obligations undertaken by the said ..................the said Agricultural Society binds itself to pay himthe two premiums of......................dollars each, one for the year one thousand nine hundred........ ......... and the other for the year one thousand and nine hundred...... ............ each payable on the first of December in each of the said years.

Signed in duplicate at on the day of the month of. 19 $\qquad$
Should this contract be passed for other animals than a horse, the above form should be altered to correspond to the race of animal for which \& premium is given.

The expenses of the veterinary surgeon shall be paid by the Agricultaral Society.

OCT. OUELLETTE, Secretary af the Council of Agriculture.

## SITTING of 12th June, 1901.

First Resolution:-That congratulations be offered to our President for the serrices rerdered by him to the Province of Quebec at the Paris Exposition and the interesting report made by him thereon. That, on account of the expenses and outlays incurred both for the trip and the work done, Mr. Dupuis' services should be recognized more tangibly and that this Council therefore recommends that the Honorable Commissioner of Agriculture do grant to Mr. Dupuis such indemnity as he shall deem suitable.

That this Council recommends the printing in French and English of the said report and its free distribution in the schools, agricultural societies, farmers' clubs, etc., etc.

Second Resolution:-The Department of Agriculture having decided to gire effect to the resolution adopted by the Council of Agriculture relative to the improvement of our breeds of animals, it is of the utmost importance to seriously consider :

1. That the agricultural class be instructed in a practical and uniform manner, either through the medium of the Journal of Agriculture or through bulletins, in regard to the best means of improving our breeds of animals as in the other provinces.
2. That it is impossible to practise horse-breeding to advantage without action on a solid basis, which would necessitate a new organization, the establishment of a "Stud-Book" or access to an existing "Stud-Book," in which the registrations would be made under the supervision of the Department of Agriculture.

That it would be very opportune and even economical for the Department of Agriculture to have at its disposal and that of this Council a competent veterinary surgeon, whose services would be most useful to the agricultural class in the great work of improving our breeds of stock and that, as a matter of fact, all the departments of agriculture in Canada have one or more veterinary surgeons permanently attached to them in the interest of the agricultural class.

Quebec, 12th June, 1901.

OCT. OUELLETTE,

Secy. Council of Agriculture.

## AGRICULTURAL LECTURES

To the Honorable F.-G. M. Dechene,
Minister of Agriculture,
Quebec.
Sir,
I have the honor to submit the report of my work as agricultural lecturer, together with my observations for the fiscal year expired.

I gave 153 lectures in the presence of 24,395 persons, as certified by the chairman and secretary of each meeting, in the following counties:

Counties.
Montcalm.. ............ ........
Matane
Terrebonne
Ottawa
Quebec
Verchères
Laprairie
St-John
Iberville
Rouville............................ 1
Levis................................. 4
Bellechasse
Berthier
Chicoutimi and Saguenay 20
Lake St-John
Kamouraska
Dorchester
Rimouski
Rimouski ...................... 13
Charlevoix....................... 10
Champlain
Total Lectures

Lectures.
8
12
6
24
5

- 1100
$2 \quad 425$
2


## 5 <br> 750

450
3
$3 \quad 285$
1 125
$4 \quad 350$
$1 \quad 300$
$2 \quad 400$
$20 \quad 2355$
6 645
$2 \quad 800$
$15 \quad 2210$

$$
0
$$

2
153 Tot. attendance.. 24,395

I hare only praise to tender to the farmers for the zeal shown by them in attending my lectures and for the attention kindly paid by them to the same.

The lectures are no longer attended out of curiosity, simply to hear a stranger, but for the purpose of instruction.

I hare noted with pleasure marked improvement along the whole line in the matter of agriculture.

## DAIRY INDUSTRY.

In this industry, the progress is more marked than in any other branch of agricultural industry. More care is takeu in the feeding of stock in winter and the selection and cleanliness of the cattle and milk in summer.

I met at St. Constant two farmers, Mr. Simeon Létourneau, who realized $\$ 1920$ out of 30 cows during one year or $\$ 64$ per cow by selling his milk in Montreal, and his brother-in-law, Mr. Emery Robidoax, who, during nine months, transported the milk of his 13 cows to the butter and cheese factories and realized $\$ 708$, besides $\$ 98.00$ from his pork and calves or $\$ 62$ per cow.

Yet fifteen years ago, these gentlemen told me that they were satisfied when a cow yielded them in one year a sum of $\$ 20$. Today, they no longer keep in their stables a cow that does not return 840 a year. But the care with which these cows are treated must be seen to be appreciated. At any hour of the day or night, a handkerchief may be rubbed over their backs without being soiled by a grain of dust. These two farmers have carefully applied themselves to selection, to raising heifers only from the best milk cows, to keeping choice bulls and lastly to improving their method of feeding.

I have met handreds of farmers who realize $\$ 40$ to $\$ 50$ and even more per cow, which is tantamount to saying that the dairy industry is making immense strides erery year.

Competitious in dairy cows contribute greatly to the improvement
of our herds. The competitions in dairy products, curing rooms, the inspection of milk and of factories, the Journal of Agriculture and agricultural lectures have greatly contributed to the improvement of our butter and cheese.

## A FINE CRUSADE.

The members for the counties of Chicoutimi and Lake St. John, and those of the county of Chicoutimi and Saguenay organized in June last a vigorous and effective crusade against everything detrimental to the production of good butter and good cheese. We attacked the enemy squarely. The Ottawa Government was represented by Mr. J. C. Chapais, the Quebec Government firstly by Dr. W. Grignon and then by Mr. O. E. Dallaire who replaces him, and the Dairy Association by Mr. J. A. Plamondon, sub-inspector of the butter and cheese syndicates of the province. At seven o'clock in the morning, we all went to a factory where the milk was receired by the local inspectors. All milk that was unfit for the manufacture of butter or of cheese was rejected, while the worn out and dirty cans were noted.

We then inspected the butter or the cheese of the factory, noting the defects to be corrected. I never saw so much enthusiasm, repentance and determination among the sinners in the dairy industry. After this visit, we lectured on the care to be given to the utensils and the mulk and on the selection of milch cows and their feeding in winter and summer.

These visits to each factory are really the best way of reaching ererybody. Men, women and children were at all of them.

When we saw the farmers so well disposed, we availed ourselves of the occasion to get the following rules adopted;

1. The manufacturer shall make without delay the improvements suggested by the chief inspector ;
2. The manufacturer shall refuse to accept any milk that has not been strained and aerated with an aerating strainer covered with a double cheese cloth;
3. The manufacturer shall apply the "curd" test to the milk once a week in order to find out by whom bad quality milk is supplied ;
4. It shall be forbidden to smoke or chew tobacco in the factory, to crowd into it or to enter it with muddy feet;
5. No "rejected patron" shall be admitted to an adjacent factory without the permission of the manufacturer whom he leaves (and this in accordance with the conventional clause of the manufacturers' association of the district).

I risited 26 factories, all of which agreed with enthusiasm and sincerity to accept this regulation.

This crusade has had a good effect, if I can judge from the following letter:

Chicoutimi, 28th October, 1901.
Dear Doctor,
The lectures which you gave us last June with your colleagues have done great good in my syndicate. We have strenuously followed the advice given us and every one is well satisfied. For my own part. I am well satisfied and I can supply you with proof of this. Among the exhibits of cheese at the Quebec Exhibition, the first prizes were carried off by manufacturers of my syndicate, for colored cheese, that is to say, they won all the prizes, as there were only four and this success is due to the visiting of each factory and the lectures there delivered.

> Your devoted servant,
> PITRE TREMBLAY,

Inspector.
I am not prepared, to adrise you to encourage a similar crusade throughout the whole province, and this for two reasons: 1. Because the number of lecturers would have to be increased beyond measure. 2. Because the same necessity for it does not exist everywhere although there are sometimes people so thin-sixinned that kid gloves must be used in telling them plain truths.

To do what we did in the counties of Lake St. John, Chicoutimi and Saguenay, kid gloves must be thrown aside and there mast be a population well disposed to correct their defects.

After visiting the county of Charlevoix, I ascertained that a similar crusade would do immense good there. It is necessary to shake off the apathy of this county, which is rather behind the rest of the province in the matter of the dairy industry and I have learned with pleasure that its members, Messrs. Angers and Morin are organizing a crusade in the style of the one above mentioned.

## OUR DOMESTIC INDUSTRIES.

If the county of Charlevoix is behind the other counties of the province as regards the dairy industry, it is not so in the matter of domestic industry for I have rarely seen so much beautiful work in flannel, linen and wool as in that county.

Mr. Joseph Cimon inherited from his father a farm burthened with mortgages and debts of all kinds. Loving the land, Mr. Cimon procured some treatises on agriculture generally, and especially the Journal of Agriculture, which follows him all the time, even in his fields, made drains, divided his farm, sowed plenty of clover, increased his herds and took care of his manures. The debts have been paid and replaced by sarings.

I could not leave Baie St. Paul without going to greet so deserving a man. If Mr. Cimon has been so successful, he owes the fact not alone to his personal merit; he owes it also to his worthy wife. who, owing to her skillfulness in domestic industry, has obviated the necessity of many purchases at the stores. Everything in the way of household linen is made by Madame Cimon, which I remarked with great surprise in the home of this lady.

She wore so pretty a dress that I asked her where she had bought it, a rather indiscreet question on the part of a man, but I had to have my trifling curiosity, the first of my life in that line, satisfied.
" It was I myself, Sir, who wove it with my own hands, cut it and made it up."
"I can say the same, she added, of every thing else you see in the house: parior curtains, bed-room curtains, dining-room curtains, bed quilts, table cloths, carpets, carriage rugs, body linen, \&c., \&c."

Madame Cimon, showing me a pair of cuffs which she had worn for ten years, said to me: "Do you think, Sir, that store cuffs would have worn as well as these which I made for myself ten years ago." I am not, astonished that, with such a wife, Mr Cimon has been so succesful. I also admired two dresses of black stuff made by Madame Cimon, one for herself and the other for her young daughter ; it was a very rich and lasting stuff good for a lifetime.

Madame Cimon's motto is: To sell as much as possible and to buy as little as: possible.

After all, is not this the putting into practice of the motto which has made France rich and prosperous and which explains why our ancestors had gold in their coffers, while we, who make more money than they did, have more debts? It was while admiring Madame Cimon's works that I asked myself whether it would not be possible to turn our domestic industries to good account and to better utilize our dead seasons by fur nishing work for our boys and girls.

Mr C. Angers, M. P. for the County of Charlevoix, told me in October last that the American millionaires who spend the summer at Murray Bay, are delighted with our home-made stuffs, flannel and linen and that they never go away without taking with them a good supply of the same. Why, then, should we, Canadians of Quebec disdain them so much? Why should we not be the first to wear them. Many parish priests, business men, farmers and professional men would be glad to see you give a vigorous impulse to their project of reviving domestic industry in our Canadian families as it formerly existed and as it actually exists in France.

## Premiums to butter and cheese factories.

In the name of thousands of settlers, I thank you, for the grants

Which you have given to aid the construction of creameries and cheese factories in the colonization centres. By assuring the establishment of these factories, you have retained on the soil thousands of settlers who were bereft of all resources owing to the falling off in the lumber industry and who in future will derire from their herds sufficient revenue to give them an honorable living.

## Co-operative Dairy Societies.

I remarked with pleasure in the course of the year that the importance of large factories seems to be better understood and that, to prevent competition, the formation of co-operative societies has been deemed advisable. I would adrise the large factories threatened with competition to do what has just been done at St . Thecle, county of Champlain.

Mr. Auzias Audet was the proprietor of a combined butter and cheese factory receiving $13,000 \mathrm{lbs}$ of milk daily. Having been obliged one day to be severe and to refuse bad quality milk, a group of three or four of the 'malcontents contemplated starting an opposition factory. On learning of their proceedings, Mr. Audet called upon them to propose that they should purchase his factory at the price fixed by arbitration. "I would rather-said Mr. Audet-leave here than see so fine a district spoiled." Reasonable as they were, Mr. Audet's propositions were rejected. The parish priest and Dr. Bordeleau, recailing a communication which I had published in the Journal of Agriculture and which had been reproduced in Le Soleil of Quebec upou the co-operative society of St. Jean, Island of Orleans, hunted it up and read it to all the patrons of the factory, whereupon a syndicate was formed and the opposition were obliged to send back the machines intended for the new factory, with the result that to day everyone is satisfied.

## Roads.

Every one asks for and likes good roads, but when it comes to take the means to secure them, the gordian knot of the question presents itself. Here, it is a mayor who is lacking in energy and the spirit of initiative; there, it is a mayor who is afraid to lose his popularity by touching the question. And, as a result, the roads in such municipalities should be seen!

In the municipalities, in which the mayors and municipal councils are cnergetic enough to buy a road machine and to use it well, every one is content. Mayors have been turned out, but their constituents were afterwards very glad to take them back.

To my mind, our system of road inspection is defective. How cana poor, unsalaried inspector, who lives by the help the whole community, be expected to prosecute for neglect neighbors to whom he looks of every day for services, or relatives, friends, etc., etc. He is in a hurry to get through his term of office in order to hand his duty over to another with all the work left by his predecessor.

So long as we shall not have road machines (reversible ploughs), a day's labor imposed upon every man between 18 and 60 years of age and in each county two or three salaried inspectors, we cannot hope to permanently secure good roads, unless we do as in certain counties in the Eastern Townships—put all the roads and bridges under the exclusive control of the municipality. But as all these measures are calculated to create taxes, they are unpopular in some counties.

## MY NEXT PROGRAMME OF OPERATIONS.

I propose, until further orders, to follow the following programme in my lectures:

1. To treat every subject which you may be pleased to suggest.
2. The care to be given to milk and dairy vessels.
3. To strongly recommend the use of the Account Book prepared with so much care by my learned colleague, Prof. O. E. Dallaire, agricultural lecturer.
4. Wheat growing for the family bread.
5. Domestic industries.
6. The establishment of cooperative dairy societies.
7. Road improvement.
8. The production of bacon.
9. Improvement of horses and milch cows.
10. The cultivation of orchards.

The whole humbly submitted.

Dr. W. GRIGNON,<br>Agricultural Lecturer.

To the Honorable F. G. M. Dechene,

> Minister of Agriculture, Quebec.
Sir,
I have the honor to lay before you the principal observations made by me in the course of the 161 agricultural lectures which I delivered during the year just elapsed.

The interest in the lectures continues to increase. They are being more and more appreciated, judging from the attendance and the many pertinent questions put to us.

We drew the attention of the farmers particularly to the bacon industry.

I would respectfully submit that in their competitions the Agricultural societies and farmers' clubs should grant special and large prizes to encourage the raising of breeds of pigs suitable for this purpose. Thus far, we have not that I know of included this improvement in the programme which should be prepared to meet actual wants and not a repetition frequently inferior to what has been already done.

There is no doubt that the prospect of winning prizes at the competitions induces the farmers to make sacrifices in order to procure choice sires, which is rather heary upon the man whose ambition is greater than his means.

The exportation of poultry, fruits \&c, supplied us with timely subjects.

Wheat and flax-growing were also the object of our remarks.
Net style of lectures.
Your kind solicitude enabled as to undertake a new style of lectures, consisting in gathering together the patrons and their wives at each butter or cheese factory.

There, in each other's presence, the manufacturers and the patrons assist at the public reception of the milk, the inspection of the cans \&c.

Then, all together, they inspect the factory in all its details and all its surroundings.

And the in restigation closes with the inspection of the butter or the cheese, the result being if possible kept secret from the next factory.

The lecturer's duty then consists in recalling without weakness or partiality the duties and the defects of each.

The common sense of the people and public interest rendered not only easy, but even agreable for us a task which at first sight appeared to us rather hard.

The lectures were altogether very fruitful in good results.

## Curing rooms and whey vats.

We noted that, in general, the caring rooms are defective and occasion the loss of the value of 3 to 4 lbs per cheese, equal to $\$ 30.00$ to $\$ 40.00$ per 100 cheeses or at the lowest 5 per cent on the cheese made in this province, that is to say, $\$ 400,000$ to $\$ 500,000$ a year.

As for the whey vats, they are in general also badly kept, so that the whey from them absolutely poisons both the cans in which it is carried away and the young cattle to which it is fed.

The pork-raising industry suffers enormously through this neglect.

These are two of the principal causes which render our cheese frequently inferior to that of Ontario and retard hog-raising.

## INSPECTORS OF BUTTER AND CHEESE FACTORIES.

We also respectfully submit that the inspectors of butter and cheese factories should announce some of their visits in advance and invite thereto all the patrons and their wires.

Visits made unawares are verifications which are hardly profitable, judging from the deplorable negligence too often noted.

Some inspectors seem to encroach upon each other, despise each other and thus lose the confidence of the public.

## AGRICULTURAL BOOK-KEEPING.

Owing to your generous attention a good "Method of Book-keeping " for the agricultural class has been distributed among our rural population.

We find to-day nambers of farmers employing this system of bookkeeping, specially ruled for their use, with as much care as our best business houses keep their books.

By this method, an exact account of the expenses, the revenues and the profits and losses of each department of the farm is rendered easy.

The pupils of our elementary schnols would gain much by instruction in this system and by preparatory lessons in agricultural book-keeping.

Roads.

A certain number of citizens beliere that the quickest and most effective way to improve the public Ghigh ways and by-roads is to induce the municipal councils to take them under their absolute control, leaving
to each taxpayer liberty to work or not upon them in order to pay his share of the assessment for the purpose.

Several municipalities would favorably view the employment of the Gorernment grant in the payment of part of the salary of a good inspector, who would be under the supervision and direction of the General Inspector already in office.

The salaries of these local inspectors should be responsible for accidents arising through their neglect in having the roads repaired.

In practice, this system would annually cost our municipal councils less.

The whole respectfully subrnitted, I have the honor to be, Your grateful servant,
O. E. DALLAIRE,

Agricultural Lecturer.
Ste. Rose, 26 November, 1901.

## IMPROVEMENT OF ROADS

Honorable F.-G.-M. Déchene,
Commissioner of Agriculture, Quebec.
Sir,
I have the honor to submit my report upon the improvement of roads for the year 1900-1901.

> Your obedient servant, $$
\text { J. A. CAMIRAND, }
$$ Provincial Superintendent of Roads.

I am pleased to inform you that in my trips made since last year, I have remarked pretty considerable changes in the improvement of roads in our province. In some places a road machine has been used and the road surface rounded, inclining slightly towards the bottom of the ditches, in others macadam has been used; elsewhere again permanent culverts have been built and the people seem to desire to get out of the groove in which they have remained too long.

Why should there not be an awakening in the country? Because the farmers are those who suffer the most from the bad state of our roads is it a reason why they should remain unmoved and asleep? Is it because the question of good roads is of the greatest importance to them with a view to the future success of our dairy industry, that the- should remain quiet? Ought they not to interest themselves in what is actually being done elsewhere? Ought they not to find out what is being done to the public roads in the United States and even in the neighboring province of Ontario.

I perceive that they have learned that they must immediately participate in the great advance towards good roads.

We have much pleasure in thanking the parish priests who have never missed an opportunity of assisting us in our work for the improvement of public roads, and who are striving every day to induce their people to change their way of making and repairing roads.

## IMPROVEMENT OF ROADS WITH A VIEW TO THE DAIRY INDUSTRY.

It is well known and understood, that the dairy industry is the life of the farmers in the Prorince of Quebec. But it can only be made to pay laring those months of the year when transport is easy and not costly. This reduces the period to a part of May, the months of June, July, August, September and part of October. The month of April and part of May, part of October and the month of November are the time of bad roads and it is almost impossible during that time to travel. The result is that the necessary care of the herds of cows ceases and the production of milk ceases at the same time.

If, instead of this state of affairs, we had hard and firm roads in the spring and fall, which would allow our farmers to carry their milk easily, you may judge yourself, how many thousands of dollars it would put into their pockets, which at present do not even know the color of it. I compare the dairy industry to a tree which grows in proportion to the care it receives from the hand of him who cultivates it. It must be forced to grow and increase for when it ceases to do so, it will die. The dairy industry should receive the same treatment, by facilitating its development, by reducing the cost of production, and, what is essential, by increasing the quantity through care and the facility of transport.

## Hindrances to the rapid improvement of public roads

I think that the greatest obstacle, in my experience, to the rapid improvement of public roads is the system of building and improving roads according to lot fronts or shares. By this system, the work is scattered and separated; there remains no common bond to induce the people to gather together or combine for a definite purpose. For instance they cannot say "we will cut down such a hill" or "we will make such an improvement" for the cutting down of that hill or the intended improvement, would fall
perhaps upon a single individual, and the burden would perhaps be his ruin. If, on the contrary, the roads were at the charge of the municipality, these works would be done without its being felt. It is my opinion that individual efforts must be concentrated toward a single point in order to accomplish great improvements by levying a tax on all the properties, payable in work or in money and then directing such work towards the accomplishment of an end for the benefit of the majority. If, instead of spending two hundred dollars over a distance of four miles, as we do at present indiridually, these two hundred dollars were applied to a single locality, say two mıles of road, each year, we would see far different results than at present. European countries understood that and did away with this system to adopt one of concentration which has given them the fine roads which are the admiration of travellers.

> J. A. CAMIRAND.

Provincial Superintendent of Roads.

## EXPERIMENTAL FRUIT STATIONS OF THE PROVINCE OF QUEBEC

established by the government of quebec in the counties of beauce, chicoutimi, COMPTON, GASPÉ, L'ISLET, MASKINONGÉ AND SHEFFORD,

Honorable F. G. Miville Déchène, Minister of Agricullure, Quebec.

Honorable Sir,
I have much pleasure in submitting the fourth report on the experimental stations for the cultivation of fruit trees, which I hare risited.

The directors of the stations have done their duty, and the results have been most satisfactory, except at Ste. Anne de Chicoutimi, where the cold weather of last winter was disastrous to the plantation.

At the other stations, the fruit trees are remarkably fine and vigorous and splendid apples have been gathered there. I am happy to be able to confirm the report of each director.

Great was the surprise at Gaspé to see the rows of Duchess, Transparent and Tealthy laden with apples. The Siberians, Excelsior and Whitney were also bearing fruit at the time of my visit. In this northerly region, it was considered impossible to cultivate apples and the finest kinds of gooseberries, raspberries, cherries and plums. The Rev. Mr. Gauthier, who risited the station with me, was amazed at the vigor of the trees and the fine fruit they produced.

At St. Léon station, county of Maskinongé, the apple trees are very sturdy, they grow one third more wood here than in the village of des Aulnaies. Complete rows of Duchess, Transparent and Wealthy bore fruit this fall, of remarkable size, smooth skin and delicate color, which would have showed to advantage in large exhibitions of fruits.

The Red Astrakan, Duchess of Oldenburg, Wealthy, yellow Transparent, Brunswicker, Tetofsky and Longfield apple trees are large and sturdy; no finer of the same age are to be seen in the Niagara valley. The Ben Davis and Alexander are slightly less sturdy. The Golden Russet, Salome, Belle of Boskoop and Scott's Winter leave somewhat to be desired.

The Arabka, Antonorka, Pewaukee, Magog Red Streak, Bottle Greening, coming from the west did not succeed well. These trees must have been fumigated in the nurseries after the sap began to run, for the director Mr. Paquin, planted the trees carefully.

The plum trees at this station grow too rapidly to bear fruit early ; the ground is much richer than that of the county of l'Islet where plum trees are so productive.

It is somewhat the same with cherry trees. We shall try cutting the roots of several of the plum trees and cherry trees next year, to force them to bear fruit and we shall cease to employ stable manure.

## Station at Compton Model Farm.

The Deputy-minister, Mr. G. A. Gigault, has already given you an account of his visit last fall to this well kept farm, where the trees are generally very fine, several bearing fruit.

The director, Mr. LeMoyne, is an enthusiast in horticulture as well as agriculture, and does not fail to give the trees every attention required. Insects are banished from the plantation which he sprinkles with a sprayer, using the insect-destroyer recommended.

In the rich soil of Compton the plum tree grows to wood and not fruit. Plum trees of the same age in the county of l'Islet produce, while those of the same kind in Compton as in Maskinongé are not yet forming fruit huds. It is the same in Arthabaskaville and in the Eastern Townships, where the plum trees bear but little fruit and rarely. In certain localities of France where plum and cherry trees did not pay, they ascertained, by analysing the soil, what was wanting and by the use of fertilizers containing saltpetre, etc., trees which were barren have been made fruitful. Being desirous of following this example, I have asked several persons, this fall, for samples of the soil for analysis. Honorable Mr. Cormier alone sent samples to your department of the soil and subsoil taken in different places. The chemist of the department of Agriculture who will analyse it will soon enlighten us, I hope, as to the means to be taken to improve the ground and render it farorable for the production of stone fruits so desired by our fellow citizens of the Eastern Townships and the counties of Maskinongé, etc.

At Compton station, the sowing of the seed of Norway maple-trees has succeeded very well : the plants which are from 5 to 7 feet in heighit are strong and well formed.

The success of the nursery of 1000 apple-trees of assorted varieties was also very encouraging. The small grafts which were not moro than 2 inches out of the ground when then were planted in May 1900 had by the month of August 1901, attained a height of from three feet and a half to four and a half feet. In a year, these strong and well formed trees, may be transplanted into the orchard upon the farm, or distributed amoagst to the
farmers of the locality, or again amongst the pupils of the Model Farm who have learned grafting upon roots and who have seen the cultivation, cutting and growth of these apple-trees, which will be worth more than. those from the west for planting in orchards.

It is evident that the western nursery-men weaken or kill the trees by forced fumigation injudiciously practiced; a large number do not take.

This fumigation of the trees to destroy the San José Scale has killed more trees than the insect itself.

Mr LeMoyne, with every possible care, could not get trees coming from the west to take: this is also the opinion of the members of the Pomological Society. How many losses have been incurred by farmers of the Province of Quebec who have bought and planted trees damaged by fumigation.

Compton, Que., November 30th, 1901.
Auguste Dupuis, Esq.,
Direclor of Experimental Stations, Village des Aulnaies.

Sir,
I beg herewith to sūbmit my annual report of this Station. After Mr. Verreault paid me a visit last summer (1900), I pinched back the great growth of wood we had on the trees, and followed his advice about a few minor details and the results have been good.

The apple trees have done rery well. The Yellow Transparent bore fruit this year, as did also the Emperor Alexander and the Wealthy.

The Cherry trees have made a most vigorous growth but as yet we have not had any fruit and I am inclined to think that the trees ought to be planted in clumps close together and not in line among the apple trees, I intend to take up some of the smaller trees next spring and replaut them in that manner.

The growth of the plum trees has been remarkable, I got a little fruit on one of the trees that came from France, the "Ste. Catherine": but none on any of the others. I have pinched back this year's growth of wood as directed and hope for good results next year.

The pear trees are doing well and I hope to have some fruit on them before long.

We had a phenomenal crop of strawberries this year, but lost quite a few by the heavy rains and storms about the time they were ripe.

The asparagus bed was a source of much pleasure and profit this year as we had all we could consume, and may have some to sell next year.

According to your instructions 1 had cedars put in between the maples planted around the orchard; with one or two exceptions they have taken and are doing well.

The grafts you sent me from Ottawa in 1900 are now three feet high ; they have grown remarkably well and will have to be removed nest year, as will also the young silver maples grown from seed sent by the Department of Agriculture at Quebec in 1899.

The " Honey Locust " plants sent in 1900 I planted in a hedge and I am pleased to say that they have grown well and are an ornament to the place.

We had an abundant crop of red and white currants, also goose berries.

The red and white raspberries were not as prolific as last year. The black ones however bore well.

The orchard is now getting so large and the land requiring cultivation for a few years longer, I have to be very particular in changing the crop on the different plots each year. I would be greatly aided in this work if I had a good practical gardener.

From the general appearance of the orchard and the buds on many
of the apple trees I should think it would not be long before we had a good supply of fruit.

The trees in the orchard near the house, which were planted some years ago bore well this year, but the fruit is of a kind that does not keep Tvell, the winter varieties are much more profitable for us.

Respectfully submitted,
Your obt. servant, (Sig.) JOHN M. LEMOYNE

Man. Exp. Fruit Station

## Plants at the Compton Station at the time of my visit, 30th July 1901

Apple-tress.

Transparent.
Duchess
Saloné.
Longfield.
Belle of Boskoop.
Fameuse.
Baxter.
Wealthy.
Alexander.
Golden Russet.
Red Astracan.
Tetofski.
Gravenstein.

Peach. Brunswicker. Mann. Wolfe River. Ben Davis. Rubicon. Rome Beauty. Canada Baldwin. Red Britigheimer. Antonovka. Arabka. Magog Red Streak. Bottle Greening.

Apple-trees in the nursery. Grafts planted, 1900.-800 trees $3 \frac{1}{2}$ to $4 \frac{1}{4}$ feet.

Cherry-trees.
E. Richmond.

French.

Dye House.
Montmorency.

Pear trees.
Flemish Beauty.

Plum trees.

Ste. Catherine.
Lombard.
Moor's Arctic.
Imperial Gage.
Stanton.
Damson Blue.
Guii.
Reine Claude (G. Gage.) German Prune.
Bradshaw.
Pond's Seedling.

Shipper's Pride.
Washington.
Niagara.
Golden drops
Willard.
Glass Seedling.
B. Ste. Anne.

Prince of Wales.
Beauty of Naples.
" Brodie " seeding.

Russian Apple trees, imported by Gibb, grown by R. Hamilton Grenville, Que.

Lord's Apple.
Flat Aport.
Sklianka.
Babushkins.
Antonorka.
Switzer.
RigaTitooke.

Downing.
Houghton.

Black Champion.
N. Star.

Acacias hedges very fine. Apple seedlings, fine.

Malinovka Leevlander.
Erdbeeraffel.
Gipsy Girl.
St. Peters.
Blue Anis.
Striped Astracan.
Goose-berries.
Industry.
Crown Bob.

## Currants

White Grape.
Cherry.
Trees for protection, very sturdy.

Raspberries.
White variety, name unknown, very large and good fruit, worthy of propagation.

## Strawberries.

Sharpless.
Wilson.

Orange.
Cuthbert.

William.

Raspberries and Blackberries
Ohio.
Greg.

## Vines

Champion.
The station is very well kept and is worth visiting.
Compton, 30th July 1901.

## AUG. DUPUIS.

## Fruit-growing Station of St. François, Beauce.

The station for the county of Beauce, established at St. François in 1899 at the college of the Reverend Marist Brothers, is well kept and the trees are as fine as those of St. Léon. Some apple and plum trees are already 8 feet high and over, with trunks two inches in diameter. The bark of the trees is smooth and clear, the wood at the end of October last was well ripened and capable of resisting the winter cold.

The soil and climate of St. François seem favorable to fruit-growing if one may judge by the present appearance of the apple, plum, cherry and pear trees and small fruits.

A nursery of 1000 apple trees forms part of the plantation. The grafts planted in May 1900 were from 4 to $4 \frac{1}{2}$ feet high this fall and are well formed.

The Reverend Brothers intend to give these plants as presents to those of their pupils who display a taste for fruit-growing. This will be a pleasant souvenir of their Alma Mater.

These theoretical and practical lessons will not fail to be useful to
these young men and to their fellow citizens later on in the various places where they may live while pursuing their career.

The crop of small fraits was abundant and some apples were gathered this year.

Of all the trees planted, only three apple-trees did not take. The White Astrakan and Mann which seemed weak last year are now sturdy. The most remarkable for their vigor are the Duchess of Oldenberg, Wealthy, Yellow Transparent, Mann, Gravenstein, all of which had well developed fruit buds this fall except the Gravenstein.

The most vigorous amongst the plum trees are the Lombard, Bonne Ste. Anne, Prince of Wales, and Bradshaw, closely followed by the Willard, Glass Seedling, Imperial Reine Claude (Imperial Gage) and Beauty of Naples.

The Flemish Beauty pear trees, the only variety on trial, hare ripened their wood; the year's growth measures 18 inches.

The early Richmond and Montmorency cherry trees are no less vigorous than the other kinds of fruit.

Some trees have been planted to protect the plantation and they look well.

The work of protecting the trees and roots during the winter is not neglected.

## Station at Ste. Anne de Chicoutimi.

At this northern station the apple, plum and cherry trees which promised, after the first two years, to become accustomed to the serere inland climate, succumbed to the cold of last winter. The previous winter had already left its traces in the orchard and last winter killed the trees known to resist cold best. Nevertheless the snow that fell early in the fall had covered the ground until the end of April and the cold was not as intense as in previous winters. The death of the trees might be attributed to
want of protection and to the clayey sub-soil into which the roots had began to penetrate.

The principal rarieties of apple trees planted at Chicoutimi such as the Transparent of Russia, Duchess of Oldenburg, Wealthy and Longfield, are considered the hardiest in Canada and in Northern Russia. Nevertheless they succumbed at Chicoutimi. At Gaspé, where the cold is as intense as at Chicoutimi, the trees of these varieties are beautiful and produce splendid fruit.

At Algoma, in the northern part of the Province of Ontario, the varieties above mentioned succeed well, according to the report made to the Ontario Government by Mr. A. M. Smith, of St. Catherine's. In November, 1899, Mr. Smith wrote as follows:
"Last fall I risited St. Joseph's Island in Algoma and vicinity and examined orchards over quite a large extent of country to see what effect the extreme cold of last winter had upon the different varieties-the thermometer was for several days 40 degrees below zero.
"Among those I examined I did not find one of the following: Yellow, Transparent, Duchess of Oldenburg, Wealthy, Gideon, Longfield, Alexander, Pewaukee, S'cott's Winter that appeared to be injured in the least and most of them had borne good crops of fruit; besides several Russian sorts and local apples, the names of which were unknown. The cherry trees E. Richmond, Ostheim and others from Russia and some varieties of plum trees did not suffer.
"The apple trees that were injured were the Ben Davis, American, Golden Russet, Wagner, Snow, Princess Louise and others."

At Powassan, Parry Sound district, Mr. Smith has established an experimental station and be says that the temperature is the same at St. Joseph's Island Algoma and the same varieties that stand the winter at the latter place do so also at Powassan.

The soil of the Algoma orchards is gravelly and this makes all the difference as regards that of the Chicoutimi station which consists of a compact and cold clay of a thickness of 40 feet and more.

While work was being done on the Quebec and Lake St. John Rail-
way near Chicoutimi in June the ground was found to be frozen to a depth of 9 feet.

I have come to the conclusion that there is but little chance of establishing orchards in the clay soil of Chicoutimi exposed to high winds and without any natural or artificial shelter.

## Letter of the Secretary of the Pomological Society, Mr. W. W. Dunlop

Mr. Auguste Dupuis, Village des Aulnaies,

Dear Sir,
I note your remarks about the Chicoutimi Experimental Station which I visited after our meeting and found as you stated that the trees had been nearly all destroyed last winter. Although last winter was comparatively mild and the ground well covered with snow, there was a great deal of damage done. Prof. Macoun tells me that they lost many trees and shrubs at Ottawa, which in previous years had not been injured and I fancy the injury must have been caused by a late growth, the trees not having ripened the wood properly. The soil at the Experimental Station at Chicoutimi is inclined to be heaving and a portion of it blackish with a lot of vegetable matter and there is no shelter. Mr. Tremblay's orchard which I also visited is well sheltered and the soil entirely different, in my opinion too light and too poor to get good results without liberal manuring, but the trees had apparently not suffered much injury from the past. winter.

It is rather discouraging as you say, to have the labor of three years thrown away but it is by such leasons as this that we gain our experience.

Yours very truly,
(Sig.) W. W. DUNLOP,

Report of the Ste. Anne de Chicoutimi Fruit Station for the year 1900.

Honorable F. G. M. Déchène,
Minister of Agriculture,
Quebec.
Sir,
Although I have taken the prccautions recommended, such as banking up the trees with earth, covering the roots with manure, and sheltering with spruce boughs, cultivating at the foot of the trees in the spring, the hardiest kinds of apple, plum and cherry trees known have not all resisted; among the apple trees a dozen only among which are 6 Duchess, 4 Wealthy and 2 Peach.

Those planted this spring are very fine.
Mr. Hamilton's small Russian apple trees, have stood the winter but they were covered with snow during the last two years, and their roots have not yet gone deeper than the layer of regetable soil, whilst the others have reached to the bed of clay and as the clay freezes to a greath depth, this may be the cause of the trees dying.

The few "Duchess" and others which survired have not produced because the fruit buds formed last year were frozen; not a single blossom appeared on them nor upon the single "Transparent Yellow" surviving.

The currant, gooseberry and raspberry bushes resist well and are very fine. They were laden with fruit this fall.

Apart from the currant, gooseberry and raspberry bushes there remain about fifty trees living ; apple, plum and cherry trees.

The whole respectfully submitted,
GEORGE HUDON.
Ste. Anne de Chicoutimi, 25th November, 1901.

## Report of Mr. Hormisdas Paquin, Director of St. Leon, Fruit Station, County of Maskinongé.

auguste Dupuis, Esq,
Director of the Fruit Stations,
Village des Aulnaies.
Sir,
I have the honor to submit my report upon the results obtained at the fruit station of this district for the year 1901.

As a rule the fruit trees are very fine, all strong and rigorous. I should however except the "Brunswick" and "Scott's Winter " which I consider very difficult to get to take, for. in spite of all the care I have given them, the six trees I received this spring are dead.

I have much pleasure in informing you that I have fruit from nearly all the trees planted the first year and fruit of the best quality.

I have had no trouble with insects and I have easily succeeded in protecting my trees and bushes.

I would like to have the people, especially the farmers, come to visit the nursery; however, I perceive that some take an interest in the cultivation of fruit and I am of opinion that the results obtained this year will arouse the most indifferent and I hope that a large number will come to visit the station next year.

I make it my duty to give all information possible to the farmers who come to see the trees and, as a rule, they appear much interested in the remarks I make to them and I know that some have put into practice the methods I have taught them.

The nursery of young apple trees is very fine; the young plants are hardy and are about three feet to three feet six inches in height.

I have the honor to be, Your obedient servant, HORMISDAS PAQUIN.

## Report of Mr Whitcomb, director of the Waterloo Fruit Station.

Waterloo 13th. Nov. 1901.
Auguste Dupuis Esq.
Director of Fruit Stations, Village des Aulnaies.
Dear Sir :-
I have the honor to herewith submit to you my second annual report of the Experimental Fruit Station at Waterloo, District of Bedford.

I beg to call your attention to a slight error in my last report p. 153, par. 7. re raspberries ; it should read "currants."

The trees of this spring planting (1901) have done remarkably well. I am pleased to state every one is living. It is certainly surprising to see the growth of wood.

In planting my trees this spring, I purposely omitted to drive posts, and fie up the trees as is generally done, as I wish to know, if the tree could not be properly planted and kept in its place without this process of tieing up. I can assure you this tieing process can be dispensed with. First the hole must be made amply wide, so that no doubling of the roots occurs and deep enough, without hilling up the tree to cover theltop roots; by so doing the rain washes away this dirt and the tree loses its main-stays or braces. Besides the roots are exposed; consequently a slow growth or a dead tree.

Second: It will be found necessary, if never before, to get on your knees, and straighten all the roots and fibers, and finger the dirt carefuly from the very bottom "and so on up" between every root, and be sure that all the spaces are properly filled and at the same time press all the dirt (in the hole) as well firmly with the hand as you proceed.

Thirdly: If you have not a mechanical eye I would suggest to place two posts (straight ones placed perpendicular) not more than four feet from where you are settling your tree. For instance, one east, the other
south and keep a constant lookout that your tree is being kept plumb with these posts. If this is not done most persons will find that when the tree is planted, it badly leans in one direction or another; then they drive a post and draw back the tree to an upright position consequently the dirt is all loosened from that part of the roots and the result is a partly decayed tree, green on one side, dead on the other; then they wonder what the matter can be. Remember no amount of tramping or pounding on the top, after the tree is planted and pulled over, will place back the dirt around the roots and fibers so loosened.

I planted this spring (1901) 35 apple trees and all are living and doing well, notwithstanding there were some scrubs among them.-20 cherries which have done finely, more specially the "Toronto" which were a fine specimen of trees when received.-10 pears, which also have done exceedingly well. The four peach trees were dead when received as well as the two quince trees. I hope the Department will duplicate the peach and quince trees, "live ones" and I shall do my best to keep them so.

As regards the planting, (spring 1900,) am pleased to state that they have done excellently well. The gooseberries were very prolific.

We did not allow any of the trees to produce, although many of them blossomed, except " Arkansas Beauty."

During the month of March last, I made and placed on the south east side of the tree a " $\nabla$ " shaped trough, i. e. two boards about 4 feet long, about 10 in , wide, the edges nailed together, lower end sharpened, and drove them down through the snow about 4 in , from the tree and I found this a very good protection from the sun scald; even with this some were slightly affected.

During the early part of October, I cleaned away all weeds and grasses about 3 feet around each trees, created a small mound and mulched each tree with plenty of green manure.

Before concluding I would like to ask the question : is there such a thing as crowding the growth of a tree too fast? I have been told that I was doing this. My answer to this is: "I do not intend to allow the tree to over produce "too young" which I think would over-come the orer-
growth." In your general report would you kindly give your opinion and greatly oblige.

Four esteemed letter under date 15 th . instant to hand and carefuly noted. In reply would say re planting of 1900, the Canada Red, Baxter, Walbridge, Longfield, Hulbert, St. Lawrence, Roxbury Russet, Grimes Golden, and Talman Sweet have done exceedingly well. Growth from 2 to 3 feet. Arkansas Beauty did marvelously well ; we allowed 5 specimens on one of these trees. Fruit of medium size, very firm, which I have no doubt will prove a good keeper. The Arabka and Golden Russet did some what better than last year (I planted 5 Arabka's this year which have done well.) ..... I would say the trees were fully matured before the frost, although many of them retained their leaves much longer. Our orchard of 12 years plauting was very productive this season. The Duchess, Yollow Transparent, Canada Baldwin, Alexandria, Wealthy \& Fameuse were simply large, for so young an orchard......

We hare not been troubled with insects: for which I give the credit to early spraying for the destruction of the insects generally. The farmers are waking up to the great importance of fruit growing, as much more extensive interest is being shown. It is generally known and admitted among the farmers themselves, that they, as a rule, are slow to move in reforms, although the more progressive ones, are beginning to take an interest in what the Department is doing in their behalf. But good work, and reforms are not completed in a day.

Time alone will bring the results that the Department is endeavoring to develop, and I anticipate in the near future that your labor and interest in fruit growing will reach that point of success and be hailed by all interested fruit-growers, to that extent: that the time, talent, energy and money so spent have proved to be a judicious outlay for the Department

> I have the honor to be,
> Your obedient servant,
> (Signed) H. N. WHITCOMBE,
> Director W.F.S.

## Report of Mr. Wm. H. Clark, Director of the Gaspé Expérimental Station.

Auguste Dopuis, Esq.,
Director Exp. Fruil Slations, Village des Aulnaies,
Dear Sir,
I have the honor to submit to you my fourth annual report. The shade and fruit trees received this spring reached here in good condition and were planted immediately. The frait trees, though well packed, were rather inferior stock with the exception of the Fameuse apple and pear trees; the others being rather small and weakly and not so grod as those sent from Village des Aulnaies Nursery.

The sugar maples were splendid trees. I planted them on the west side of the orchard, where they will help to shelter the fruit from the high winds so prevalent from that quarter.

The apple and cherry trees bloomed well this spring, but suffered greatly from a cold northerly wind that visited this locality about that time; they still bore some very nice samples of fruit.

The Wealthy, Transparent and Duchess of Oldenburg apples, bearing six dozens on some trees.-The Excelsior and Whitney crabs had some very nice fruits.

The small fruits were in abundance, doubling the yield of last year.
The station was visited by some persons from Montreal and other places who were greatly surprised at the quantity and quality of the fruit,

It was also visited by a large number of the neighbouring farmers, many of them seeking information concerning the culture, pruning and spraying of fruit trees, which I promptly gave to the best of my ability.

The little root grafts withstood the winter well, there being no loss Whatever ; out of 1000 I have 750 very nice plants 3 to 4 feet high.

I failed with the St. Lawrence, Belle of Boskoop and Ontaris apples, they haring died from sun scald, the Arabka suffering olightly there from.

I also lost two Smith's Orleans plum and one Greeley. The St. Cloud freezes most all its year's growth therefore it makes very little headway, all the other varieties of plums are promising well.

Your obedient servant,
(Signed) Wm.-H. CLARK.

## Remarks by the Director-General on the Experimental Fruit Station at Gaspe.

The Quebec Government in 1898 establisned an experimental orchard at Gaspé Basin, on Mr. W. H. Clark's farm where apple, cherry, plum and pear trees, as well as small fraits, are tested carefully. A selection was made of trees of the most robust and hardy varieties adapted to northern latitudes, where summers are short aud winters severe and long.

The plantation was made in May 1898, on good soil surrounded by hills affording, with rows of soft maples and elme around the orchard, a good protection to the fruit trees.

To insure protection from the sudden changes of temperature in winter, spruce trees cut in the bush in the fall, are stuck firmly on each side of each fruit tree.

This will be done each year until the trees begin to form their rough bark. The vigor of the trees after three years of culture is remarkable and proves that the soil and climate of this district are well adapted to fruit culture.

In 1899 the "Yellow Transparent," and "Duchess of Oldenburg" apples produced a few fine fruits some of which were sent to the Paris

Universal Exposition 1900, for which a Gold Medal Diploma was a warded to Mr. Clark, manager of the station.

The "Transparent," the "Duchess," the "Wealthy " are all bearing fine large apples, the "Excelsior" and "Wealthy" crab apples are also bearing (Sept. 5th, 1901.) The "Red Astrarhan," "Antonorka," "Brunswick" and "Ben Davis" are strong and healthy ; the "St. Lawrence" and "B. of Boskoop" are sickly and sun-scalded. The crabs, "Queen's Choice " and "Hyslop" are doing well.

This experiment at the Gaspé Station and the few apple trees cultirated in several orchards at Gaspé that have survived ten to twenty five winters, prove that by a judicious selection of hardy varieties, apple culture is possible at Gaspé and would be a profitable industry to orchardists who have a market at their door. Gaspé Basin alone imports over one thousand dollars worth of apples besides the consumption of apples at the outports and surrounding parishes which is of some importance.

## Plums.

The plum trees at the fruit station that are promising are "Pond's Seedling" "Damson", "Lombard", "Bonne Ste-Anne" and "Guii" planted in 1898; they grow well and mature their wood perfectly. The "Niagara", "Green Gage", "Greely", "Bradshaw", are too tender, part of the wood is winter killed. The "Ross" plum of Beebe Plain has stood the winter; it is a promising variety.

## Cherries.

Cherry trees "E. Richmond", "Cerise de France" and "May Duke" prove hardy, the two first bearing a ferf fruits this summer.

## -Pears.

Flemish Beauty and Vermont Beauty pears are not rery strong.
Gooseberries.
Downing and Houghton are doing very well. 136 gallons of Downing were gathered and sold this year, some bushes bearing 2 gallons.

## Raspberries.

The "Orange", a delicions white fruit, has given a good crop this year; it was sold at a very remunerative price.

## Strawberries.

Have not grown well, the plants were received in bad condition at the station, Another trial will be made.

A nursery of 1000 apple root grafts was established at the station in May 1900. Over 750 strong healthy plants are now 3 to 4 ft . high and will form rery good acclimated trees for planting in this northern district.

Several rarieties of Russian apples grown by Mr. Robert Hamilton of Grencille, Que., are also on trial ; the trees will be large enough to transplant in the orchard, next spring.

Twenty five apple trees grown from the seed of the "Duchess" are flourishing.

Mr. Clark is a very good experimentalist. His success ought to encourage fruit culture at Gaspé. Such is the opinion of Revd. Mr. Richmond and Revd. Mr. Gauthier who have visited the orchard.

AUG. DUPUIS
Village des Aulnaies, Nov., 1901.
Gaspé, 4th December, 1901.
Auguste Dupuis, Esq.,
Village des Aulnaies.
Dear Sir,
I had great pleasure in accompanying you to the Gaspé fruit station. My visit interested me very much and with much satisfaction, I am convinced of the marvelous success of the fruit trees. I have no hesitation
in saying that the success exceeds our hopes. Experience now proves that with good fruit trees adapted to our short summers and to our climate and with intelligent and careful cultivation we can establish fine orchards in Gaspesia as proved by the station already established.

It would be desirable to have a station nearer the village or in a more central locality for the education of the majority and the encouragement of all.

As regards the apple trees, I think the Transparent of Russia, Duchess, Wealthy, Siberia, Excelsior and Whitney are those that resist best here. The climate seems more favorable to them.

It is needless to say that we can also succeed rery well in growing cherries, gooseberries, strawberries and raspberries. My visit to the goverument station proved this to me last summer. I hare no doubt that any intelligent person who will give the necessary care to fruit trees suited to our climate will meet with brilliant success and results beyond all hopes.

In the spring I shall be in a better position to tell you how to send the fruit trees given as prizes by the Horticultural Society of the county of l'Islet.

## Yours very truly

(Signed) J. GAUTHIER,
Priest.

## List of Apple trees in the Orchard and Nursery since 1860 at the Village of des Aulnaies Nursery now a Fruit Station.

Des Aulnaies Viljage, 14th November, 1901.
Alexander, - good, fruit of wonderful size ; the tree prefers a rich sand or mixed with clay.

Astrakan, red,-fine and delicious fruit, requires cool sand.
Astrakan, white,-trees less hardy than the red Astrakan.
Benoni,-weak.
Blenheim,-died 1896-97.
Ben Davis,-good and productive trees.
Bellefleur,-died 1896-97.
Blue Pearmain,-does not produce much, fruit superb.
Baxter,-under trial.
Calrille Xellow County,-strong and productive trees, propagating by suckers.

Colvert,-hardy trees, not productive.
Cooper's Market,-died 1896-97.
Canada Baldwin,-soil too light here.
Duchess of Oldenburg, -in the first rank for the hardiness and productiveness of the trees and beauty and evenness of the fruit.

Deleware Red Winter,-promising trees.
Early Harvest,-died in 1896-97.

Fameuse, - one of the most widespread varieties, the most to be recommended.

Grimes Golden,-weak trees.
Germain St. Pierre,-trees hardy, come from St. Jean P'ort Joli, apples delicious, recommended.

Gravenstein,-trees liable to be affected by cold, have not yet giren satisfaction.

Gédéon, - under trial.
Hyslop (Siberian), - this rariety of the Siberian keeping apples succeeds every where.

Kesivick Codlin,-hardy trees producing cooking apples.
King,-trees too weak for this region.
Longfield,-under trial.
McIntosh Red,-young trees very promising.
Maiden's Blush,--trees 40 years old, still producing fine apples.
Mann,-hardy.
Martha Crab,-a fine rariety of the Siberian which sells well.
Northern Spy,-trees 40 years old, producing slightly, the soil seems too light.

Pewaukee,-trees withstand the cold, second quality fruit.
Princess Louise,—died in 1896-97.
Porter, - a single tree planted in 1865 gives little fruit.
Queen's Choice, (crab),-a fine variety of the Siberian.
Rambour (winter),-trees grafted on wild apple-trees planted in 1865, have withstood the cold, are slightly productive.

Reinette (English Golden Russet), - grafted on wild trees planted in 1860, yielding fine crops.

Reinette (Roxbury), -trees 40 years old, fine but bearing little on poor soil.

St. Lawrence, -trees 40 years and under, yielding medium but paying crops.

Scott's Winter, -hardy: productive trees, highly to be recommended for Northern districts.

Stark,-died 1896-97.
Tétofsky, - trees of 1860 and younger, all very productive.
Transparent Yellow,-this rariety succeeds everywhere, produces. when young and abundantly.

Talman Sweet, -tree fairly productive but the fruit is not large and is not liked.

Transcendent (Crab), - this variety of the Siberian is to be recommended, succeeds everywhere.

Vingt Onces, - died in 1896-97.
Wealthy,-hardy and very fruitful trees, fruit very fine and keeps. well, this variety should be planted in all northern orchards.

Wolfe River,-hardy tree, apples large and finer than the Alexander.
Whitney (Siberia), -trees hardy, the best of the Siberians, and aslarge as the average apple.

PLUM-TREES IN ORCHARDS AND NURSERY SINCE 1860 AT THE "VILLAGE DES AULNAIES" FRUIT STATION.

Albany or Hudson River Parple,-my first trees are dead, the young trees are fine.

Bradshaw, -2 trees planted in 1860 died in 1896-97, the young trees bear little in comparison with the Lombard; fruit very large, beautiful and good.
xx. Blue Damask, native,-well known, hardy tree, productive, delicious fruit.

Fellemberg,-too delicate to be cultivated extensively.
x. Guii,-promising variety.

General Hand,-tree feeble here.
xx. Grand Dake,-vigorous tree, abundant vield $1900 \cdot 1901$, fruit of the largest and most beautiful.
x. Coe's Goutte d'Or,-bears abundantly, fruit ripens late in October.
xx. Lombard,-very hardy, bears early and enormously, a beautiful and good market plum.
xx. Moor's Arctic,-tree bears very young, less vigorous than the Lombard but as productive, fine market plum.

Monroe,-up to the present this hardy and vigorous tree has borne little.

McLaughlin,-a delicious plum.
Niagara,-Similar to Bradshaw.
x. Orleans native or Grosse Imperiale, blue,-from seedlings tree grows up very thick and tall, lives to an old age, produces less than the Damson plum-tree.

Smith's Orleans,-deserves a place in the garden.

Germany Plum, -is not a market plum.
xx. Pond's Seedling, 一a hardy tree in growth, producing one of the finest and largest plums known.
x. Quackenboss, -hardy and productive tree, a fine market plum.
xx. Reine Claude Montmorency white,-native; from seedlings, of the first rank for quality and profit.
x. Reine Claude golden (Green Gage,) -ripens the first on 8th September, very juicy, difficult to ship.
xx. Reine Claude de Bavay,-ripens from 15th to 20th September, less juicy than the Gieen Gage and firmer, can be carried without loss to distant markets.

Reine Claude Imperiale (Imperial Gage.)
St. Cloud,-a fine plum similar to Quackenboss.
x. Shipper's Pride,-excellent market variety, a paying tree.
xx. Washington, - a hardy tree, fruit white, large, as fine as a peach on the tree, obtains the highest price.
x. Yellow Egg,-productive, fruit large.
x. Jones Seedling, -tree very vigorous, slender.

St. Lawrence,-tree slighthy tender, fruit delicious.
xx. The Favorite Early,-trees planted in 1898, promise hardiness and productiveness.
xx. Bergthold's Mirabelle, early,-tree planted in 1898, promises hardiness and productiveness.
x. Amaryllis,_grown from Mirabelle seedlings 1890 ; by A. Dupuis, bearing since 1896 , fine large white plum, highly appreciated by Wm Saunders Director of Experimental Farms. Tree very hardy and vigorous as well as the shoots.

[^1]APPLE TREES IMPORTED FROM FRANCE IN 1898 (FROM MESSRS BALTET \& FRERE, TROYE) BY THE DEPARTMENT OF AGRICULTURE.

Court pendu plat, vigorous.
Reinette de Cuzy, fruit, 1901.
Blenheim Pippin,--died.
Belle fleur rouge,-good.
Amelie,-died.
Bonne de Mai,-died.
Belle of Boskoop,-scalded.
Yellow or silver,-good.
De Chataigner,-good.
Grillot,-good.
Galloway Pippin,-strong.
Friandise,-weak.
Irish Peach,-fruit 1900-01
Newton Pippin,-tender to cold.
Melon,-weak.
Orange of Cox,-good.
Pearmain, summer,-good.
Pippin of Alkofen,-good, fruit, 1901.Pigeon rouge,-fruit, 1901.

TREES IMPORTED FROM FRANCE, 1901, FROM MESSRS BALTET \& FRERE,

Blenheim.
Calville Blanc, St-Sauveur.
Calville de Dantzick.
Calville rouge, winter.
De Vendue Léveque.
Fenouillet gris.
Fraise de Hoffinger.

TROYE.

## Apple trees.

Reinette des Carmes, - some fruit, 1901.

Russet of Canada good " fall
" England "
" of Pentecôte, "
" Royal russet, "
" of Canada, "
" of Harbert, "
" of Champagne, "
" of Caux, "
Rembour summer,-fruit 1901.
" winter,
Royal of England,-weak.
Reine des Reinettes, "
Gros Locard, "
Verdin winter, -fruit, 1901.
Transparent of Croncels, fruit, 1901.
$\qquad$

Galloway Pippin.
Pigeon Blanc.
Reine des Reinettes.
Reinette Dorée.
Reinette of Canada.
Titowka.

## Plum-trees

Columbia.
Agen.
Dame Aubert.
Prince Engelbert.
Reine des Mirabelles.

Mirabelle parfumée.
Damson, Violet.
Damson, September.
Reine Claude (Green Gage).
Reine Claude Althan.
Vines.
Gamay de Juillet.

## Pear-trees.

Beurré Giffard.
Beurrè Baltet, père.
Claude Blanchet.
Belle du Bois.
1 Semis No. 284.
Fondante Fougère.
Bte. Dalbert.
Pierre Joigneaux.
Fortuné Brisselot.
Délices de Huey.
Bergamotte Hertrick.
Duchesse de Berry.
Madame Hunn.
Joyau de Septembre.
Souvenir de Leroux Durant.
Bonne Serre St-Denis.
Madame Faure.
Madame Elise.
Général Cousenin.
Dr. Desportes.
Alexandre Chomer.
Beurré Gilles.
Henri de Boarbon.
Beurré d'Amanlis.

Ananas de Courtrai.
Beurré Bruxelles.
Prince Impérial.
Réné Delman.
Barillet Deschamps.
Juvernier de Boulogne.
Anne de Bretagne.
Toukouba.
Louise Bonne de Janvier.
Madame Ireyne.
Idaho.
Comte de Lambertye.
Pierre Tourasse.
Vice-Président Delbec.
Président Barrabé.
Onondaga.
Antoine Delfosse.
Durhesse d'Angoulème.
Souvenir du Congrès.
Docteur Joubert.
Saint Joachim.
Beurré Fougueray de l'Assomption.

## Conclusion.

It is evident from the reports of each station that the apple trees that succeed best everywhere are the Red Astrakan, Duchess of Oldenburg, Yellow Transparent, Wealthy and Tetofsky.

These five varieties produce early and abundantly. Persons who wish to have orchards in the northern sections of the Province can safely plant these 5 varieties as well as the Siberians, Hyslop, Transcendent and Whitney.

The following varieties are also good: Alexander. Peach, Fameuse or Snow, Longfield, Scott's Winter, Golden Russet. They are hardy; some may be seen as low down as Rimouski, in the garden of the Tessier manor, at Hon. Mr. Fiset's and at Mr. Bégin's.

The plum and cherry trees have not yet stood a long enough test in the northern stations to permit our recommending this year a list of the varieties suitable for those places.

Owners of gravelly soils, such as those of the orchards in the counties of Montmagny, l'Islet, Kamouraska and Montmorency, might be guided in the choice of the varieties of plum and cherry trees they wish to plant, by the report of the Horticultural Society of the county of l'Islet which is annexed to this. The report also gives a list of the small fruits which can be grown to advantage.

The task of directing the fruit stations in the northern districts of the Province of Quebec is much more difficult than that of directing experiments in the Province of Ontario, In our Province you wished to introduce fruit-growing in regions where every attempt had been unsuccessful and, to favor those regions, you established experimental stations or orchards in certain counties where fruit-growing was almost unknown; these orchards were entrusted to model farmers willing to follow the instructions given them but who had not even an elementary knowledge of fruit-growing.

It was a bold undertaking which interest for the public welfare could alone inspire.

In the Province of Ontario the stations established by government were entrusted to men of great experience whose orchards and fruitgardens were already models in the localities where they existed.

For experimental purposes in growing apple-trees renowned specialists were selected who owned the best orchards. In another county a specialist in the growing of plum trees was appointed director.

The stations for pear trees are directed by specialists who have been most successful with pears.

The same applies to the trial of all kinds of small fruits and grapes.
The directors of the Board of Control of Ontario stations are charged with the duty of selecting good directors and of supplying them with fresh varieties of the fruits they hare already cultivated. Such a task is an easy one.

The duty of the directors consists in cultivating carefully and in comparing the superiority or inferiority of the new rarieties supplied them by the government, with those they already cultivated and to report on the same. There is nothing difficult in this.

In the eastern section of the Province of Quebec the government, having no specialist available, instructed each director to try all the fruits together at each station such as : apples, plums, cherries, pears and small fruits. This is an onerous task for beginners and all these trees and bushes are on the same plot of ground the composition whereof does not suit the various kinds of fruit on trial.

The success obtained by the directors in the eastern and northern stations is therefore very meritorious; it should encourage farmers to plant orchards since those directors who had no more experience than they have been successful.

At Compton and Waterloo the directors had a knowledge of horticulture and orchards which were already well kept ; their task was easier.

The same applies to the station at l'Islet whose director has an experierence of over 40 years in fruit growing and has regularly taken notes
which the journals of Agriculture, the Montreal Horticultural Socrety and the Pomological Society have published.

I consider that the Government and the public will appreciate the importance of the experiments carried out at the stations. By comparing them with those made at the experimental farm of the Dominion of Canada at Ottawa, in the plum-tree class for instance, you will observe that the result is more unfavorable at that Ontario farm, so scientifically managed, than at the fruit stations of the Province of Quebec. In the official report on experimental farms for 1896, pages 142, 143, 144 the horticulturist states that in the spring of 1896, 73 varieties of plum trees died in the plantations made since 1883 at the Ottawa central farm.

The report of the horticulturist for 1897 does not mention the losses during the disastrous winter of 1896-97.

Amongst the varieties of plum trees mentioned by the horticulturist, the heads and trunks of which were frozen in certain winters and the roots in others, you will find a great many of the kinds that stand the cold in the districts of Montmagny and Kamouraska and in the fruit stations of the Province. You yourself have seen the fruit on the trees and also at the exhibitions of the county of l'Islet, since 1880.

Without entering into a comparison of the other fruits, these facts suffice to prove that the horticultural experiments carried on at the Ottawa Experimental Farm, although very important, cannot serve as a guide to the farmers and horticulturists of the Province of Quebec in the selection of the varieties of fruit suited to the climate and soil of their regions.

The influence of the waters of the St. Lawrence modifies the temperature; our eastern orchards feel the beneficial effects of it and this enables us to grow trees that cannot stand the cold in inland districts such as Ottawa.

Pray accept the assurance of my respect and allow me to compliment you on your efforts in favour of fruit-growing supported by the Government, the Legislature and the horticultural and pomological societies.

## INSPECTION OF BUTTER AND CHEESE FACTORIES.

To the Honorable F. G. M. Déchene,
Minister of Agriculture.
Sir,
I have the honor to submit my third annual report as inspector of butter and cheese factories in my district comprising the territory extending from the county of Montmorency to the county of Berthier inclusively. on the north shore, and the counties of Levis and Lotbinière, on the south shore.

I began my inspections on the 13th. May and finished on the 12 th . November last.

I made 142 inspections in 115 factories.
I would first remark that, in previous years, I had only the creameries to in pect and this year I was instructed to inspect both creameries and cheese factories, which I did.

The temperature, this year, was on the whole unfavorable to the making of butter and cheese. In my district I found that a good deal of bad butter and bad cheese was made.

This is generally attributed to the excessive heat. It is true to a certain extent but if we look thoroughly into the matter, it will be found that the age of the factories has much to do with it. Factories built long ago are often neglected, the drainage is defective and the excessive heat must have developed germs of infection which greatly injured the quality of both butter and cheese.

In many cheese factories the whey vat is too close to and sometimes underneath the factory and exhales odours which affect the product. Moreover, careless patrons bring in uusuitable milk, in too advanced a
stage. Where the factories are new and not contaminated either by the drains or by neglect in the manner in which th"y are kept, the prolucts are always of a superior quality. This leads mo conclude, as I have always been able to do, that cleanliness and proper care of the utensils and ixaplements in a factory are the basis of its prosperity because such a factory can always do better than others where less care is taken because its products are of better quality. This applies both to butter and to cheese.

When a new factory has to be built a suitable site should be chosen, with pure water, where the waste waters can easily b drained off and where the air circulates freely. These are important matters.

I have observed that, as a rule, the good makers keap us long re, ask us more questions and seek for information while others who are less anxious seem to pay no heed to the improvements that are beiur introduced daily in the manufacture of butter and cheese.

I cannot repeat too often that the dairy industry is a great work which must be encouraged in every possible way. It is a comparatirely new one in our country and can attain greater development only after years of application. This system of inspection and supervision of our factories stimulates good makers who are as anxious for our good reputation as for their own and it is feared only by those whose voluntary ignorance and carelessness are calculated to injure the common welfare.

The whole respectfully submitted,

GAB. DESROCHERS,

Inspec'or.
St. Nicolas, 15th. November 1901.

Hon. F.G. M. Déchene,
Minister of Agriculture,
Quebec.
Sir,
I have the honor to submit my second annual report as inspector of butter and cheese factories.

I began my inspections on the 18th. May last and finished on the 14th. Novembér instant.

My district being confined to the counties of Beauce and Dorchester, I inspected 200 factories viz : 189 cheese factories and 18 creameries. I made a second inspection of some of these factories.

By the number of factories I inspected in two counties only, you will easily see that it is much too large. In the two counties there are 221 factories; Beauce alone has 163.

The season was exceptionnally unfavorable this year, especially between the 20 th. June and 15 th. September, owing to the excessive heat, the drought, the flies that tormented the cows, and in many instances the scarcity of water for the latter. All these causes which were more felt than usual, in addition to the usual defects in the care of milk by the patrons, contributed to the milk being of very bad quality.

Nevertheless I noticed marked improvement in a good many factories. I found many districts where the advice I had previously given regarding the care to be given the milk had been followed. There is certainly an improvement almost everywhere.

The patron must not always be blamed if he does not take proper care of his milk. He frequently errs through ignorance. In a great many cases the blame should be cast upon the maker who is supposed to know the milk that is brought him and to be able to tell his patrons what they should do. Either through ignorance, which is frequently the case, or
negligence or through fear of giving offence, a good many manufacturers do not do their duty in this respect. During my inspection of the factories when, in the morning, I give the patrons adrice respecting the manner in which they should take care of their milk, they often say: "We never received such advice before: our manufacturer never spoke to us about this. He always takes our milk without saying a word."

Yes it is unfortunately true that a good many makers do not know the milk they receive and cannot give the necessary advice to their patrons. It is not altogether their fault; they were not taught better ; they have no theoretical or practical knowledge of the matter.

What knowledge and what experience can a maker have when his apprenticeship lasted only a few weeks and, in some instances, a few days and often under teachers who knew nothing themselves. It is deplorable, but it is true.

Our dairy industry has certainly gone ahead too quick as regards the multiplication of factories. An enormous number hare been built in a few years without considering whether competent manufacturers could be obtained for them.

There is some improvement in the manner in which the factories are kept but a great deal still remains to be done before attaining perfection. The general fault has been and still is to build factories in low swampy places, in holes where it is difficult and frequently impossible to drain off the waste waters, which stagnate underneath and around the factory. I found some factories in a disgusting state of uncleanliness and infection. I threatened the proprietors of these establishments that I would report them to the Board of Health if this state of affairs were not changed.

Defects in manufacture are still numerous, but there is an improvement. One defect, amougst others, which tends greatly to disappear is the use of too great a quantity of rennet, which has the effect of ruining the quality of the cheese in many respects. Notwithstanding the efforts of a certain purchaser in advising this injudicious use of rennet, I hare suc-
ceeded in getting this faulty practice abandoned by a great many manufacturers.

There is not as much progress as might be desired in the improvement of ripening rooms. The quality of the cheese was greatly injured during the past season during the excessive heat. With the money lost through this defect alone, many good ripening rooms could have been built.

Another fault consists in shipping the cheese too green. I have frequently seen cheese sent to market three or four days after coming out of the press. This cannot fail to do a great deal of harm to the reputation of our cheese in England. Complaints are made that our cheese is too dry. If it were allowed to ripen properly in the factory before being shipped, there would certainly not be so many complaints in this respect.

The whole respectfully submitted.

## J. L. PAINCHADD,

Inspector.
Ste. Marie, Beauce, 22nd. November, 1901.

Hon. F. G. M. Déchène,
Minister of Agriculture, Quebec.
Sir,

- The inspection of factories for the season of 1901 being ended, I now have the honor to submit the following report:

I began my work on the 21st. May and finished it on the 20th. November.

I inspected 155 factories, viz: 82 cheese factories, 42 creameries and 31 combined factories several of these were inspected twice.

In the course of these visits, I found with pleasure that all the manafacturers, without exception, appear to understand and appreciate the interest we take in them and the adrantage they get from this system of inspection.

I therefore deem it my duty to praise and thank the Minister for the excellent idea of inaugurating this system.

It is really a pleasure to an inspector to meet with manufacturers desirous of instruction, eager to receive his advice and well disposed towards him. I have met the greater portion of them, and the numerous letters sent to me from all parts, soliciting a second risit, are a convincing proof that they feel the need of acquiring fiesh knowledge and of improring their methods.

In a large portion of the district I hare visited, many factories had not yet had the advantage of a risit from an inspector. In these, much work was needed to correct all their mistakes and to put them in the way of progress, without being able to find any improvement.

Fortunately it is not the same with the factories I risited last year. [ remarked fairly perceptible improvement, almost everywhere. That does not mean, no doubt, that perfection has been reached. No, there is still much to do. The principal remarks are: bad or incompetent administration on the part of the manufacturers and dirt.

Most of the manufacturers fail in the use of the centrifugal.
As a rule, while knowing the power of their centrifugal they are absolutely ignorant of the way of regulating it ; that is to say the quantity of pounds of milk to pass throngh in the hour and the percentage of fatty matter to be obtained. For example, a centrifugal has a capacity of 3,000理s an hour; if the manufacturrr ouly passes 2,000 , there is a loss of time; if he puts 4,000 , there will be a loss in the creaming. Or astiu a manufacturer never touches his ceutrifugal which I have often observed During the summer, the cream is of prop $\cdot \mathrm{r}$ consisten $\cdot \mathrm{y}$; in the spring it is too clear, which occasions white spots in the butter, and in the autumu, it is too 11

Thick, it cannot be worked sufficiently and causes much trouble in the whole fabrication; therefore the centrifogal has to be made to agree with the greater or lesser thickness of the cream.

This is only one case and how can it be otherwise when manufacturers are found who hare nerer made angthing but cheese who, some day, combine their factory, and start to make butter after less than a wrek's apprenticeship? According to me, every manufacturer should hare a diploma or at least prore that he has had one or even two years' apprenticeship, which would be preferable. In this way our dairy products would increase in value and reputation.

A great obstacle to the keeping of the product which I have met with in sereral places, is the want of refrigerators. The butter is put into cellars or damp rooms, which tends to depreciate its quality. It is the same in cheese factories where there is no ripening room.

I hare laid stress on these points and I have striven to make the manufacturers understand the immense good to be derived from a ripening room and from a refrigerator, showing them very clearly all the advantage they would derive by profiting by the encouragement the Government is willing to accord them in offering them a prize.

I hope that I have not spoken in vain; all seemsd to understand the advantage they would derive by improving their factories, and already several have started to work. In my opinion, it is a great step towárds progress and it is almost an assurance that in a few years our dairy produce will surely increase in value and reputation.

In my inspection I was often called upon to test the milk, and unfortunately I discovered several cases of fraud: I may say at least 40, arising chiefly from putting water into the milk. None of these cases have been left unsettled and I can boast of having made no accusation which was not confirmed by the confession of the guilty party himself.

If I may be allowed to express my opinion, I would say that it would be necessary that each inspector should go accompanied, if required, by a
lecturer on agricultare, in the chief places of his distrist of inspestion, a little before the factories are opened, in order to thoroughly instruct patrons and manufacturers upon all points; to teach the latter esp cially the way to test milk, in ord $r$ to protect themselres against the disnonesty of certain patrons; to advise them and show thum a mothod of taking very exact notes of each test, so that the inspector, at his visit, will be able by a simple test to ascertain whether everything is correct or whether there is fraud. It wonld be a great saving of time and I consider also a great safeguard for, when the farmers would know that measures are taken to protect them against one another, they wonld be more prudent and more on their guard.

In several factories, I found the cheese acid or graseous; I attribute this to the raw material, that is to say to the bad milk which many cheese-makers receive indiffently, some through ignorance, others through fear of losing their patrons.

An important point that I have noticed in a large number of my daily reports, is uncleanliness. I my opinion, it is the greatest obstacle to the progress of the dairy industry. I will never be able to believe that products of a superior quality can come from a dirty factory.

This uncleanliness consists in the first place in the want of care of the milk put in badly kept cans; in the whole factory generally inside and outside, from which all sorts of bad odours escape, and especially in the whey vats which are often placed under the factories and exposed to receive all the waters from the washing and are never cleaned.

Another thing I have to mention which is equally deplorable; it is the unreasonable opposition of the small factories which are being started everywhere.

If, as I have already said, the manufacturer required to have a diploma or to know his trade perfectly, it would be an effective way of fighting them; for, as a rule, a man who knows his trade well and is recognized as competent, will not amuse himself vegetating in this kind of factory, he will choose in preference a place where his knowledge will be of use.

This following is a list of the factories visited:

| Counties. | Butter. | Cheese | Com. |
| :---: | :---: | :---: | :---: |
| Argenteuil...... ........... ... .. ..................... | 2 | 10 | 2 |
| Deux-Montagnes................. ... ........ ........ | 6 | 3 | 14 |
| Hochelaga........ ...... ...... ...... ................ ..... | 1 | - | 1 |
| Joliette ............... ......................... ..... ...... | 2 | 1 | - |
| L'Assomption..... ... .................. ........... ..... | 5 | ...... | 2. |
| Laval...... ................. .................... .... .... | 4 | ... | 1 |
| Montcalm.. |  | 2 | 1 |
| Ottawa.... .... ......... ...... ...... ...... ......... ...... | 9 | 42 | 7 |
| Terrebonne............. ........ ...................... | 12 | 14 | 3 |
| Vaudreuil.............. ........... ............... ...... | 1 | 1 | ...... |
| Wright........... ........ ............ ...... ............ | ...... | 9 | ...... |
| Total................. ........ | 42 | 82 | 31 |

Respectfully submitted.
Your humble servant,
S. CHAGNON,

Inspector.
St. Paul l'Ermite, 23nd November 1901.

Quebec, 17th December 1901.
Honorable F. G. M. Dechene,

## Minister of Agriculture,

Quebec.
Sir,
I have the honor to submit my third annual report as inspector of cheese factories.

I began my tour of inspection on the 13 th . of May and completed it on the 13 th. November. I made 129 visits to 106 factories. I paid special attention to the inspection of the milk received by the factories, and I was, I regret to say, enabled to find that there was a general neglect in the method of straining the milk and cooling it before bringing it to the factory.

It must be admitted that many patrons understand the importance of straining the milk and only carrying it in ressels perfectly clean both inside and out.

At the same time it is regrettable to find that certain manafacturers are far from keeping their factories in an absolute state of cleanliness and they neglect particularly the apparatus they use and the whey vat, the unwholesome gases from which are greatly injurious to the manufacture.

The excessive heat of last summer, which came at the same time as an absolute dearth of water in several places, damaged the good quality of the cheese in many instances.

The ripening rooms in the factories, for which your department grants special prizes, are more and more appreciated by the manufacturers and tend to become general. In many factories built very carelessly, these rooms are an absolute necessity for the making of good cheese. Your department has rendered invaluable services to the proprietors of factories
by teaching them the manner of building these rooms and by offering prizes which would largely repay the cost of construction.

In the course of my visits, I noticed several times that the cheese was sent too fresh to the market. The consequence is that this cheese loses its aroma in transit, and lowers the good repute of this kind of produce abroad. I hare always adrised the manufacturers to keep their cheese at least two weeks in good ripening rooms before delivering it to the trade.

I hare noticed with pleasure that the proprietors of cheese factories as wrll as the manufacturers are eager, as a rule, for the inspector's visit, whereas, a few years ago, this visit was always an object of dread on their part.

In last year's report, I remarked that the number of cheese factories in the counties assigned for my inspection had increased by 21 . This year new factories have been erected in the same district. In some cases, these factorips are doing good in the localities where they have been put up, but, in others, they will unfortunately compete with the factories existing already.

I find that the agricultural lectures given under the auspices of your departinnut are much appreciated in the district I have travelled over and a grood many farmers have expressed a desire to hear your lecturers again.

The whole respectfully submitted,

J. N. ALLARD

To the Hon. F. G. M. Dechene,
Commissioner of Agriculture,
Quebec.
Sir,
I have the honor to submit to you my fifth annual report as inspector of cheese factories of the province of Quebec.

I began my tour of inspection on the 12th of May and ended on the 13th of Norember.

This year your department did not give me so much territory to go over which enabled me to make more visits to the factories which gave better satisfaction.

I made 162 visits to 106 factories.
The makers have a little something to $\mathrm{d}_{\mathrm{s}}$ yet to get to the top. They arefmaking a very good cheese in quality but very bad in appearance; small in size ; cheese not turned in hoops and trimmed, and dirty. Making small cheeses is a very great loss from beginning to end for proprietors and patrons.

A factory that is making from 700 to 750 lbs of cheese a day would make 11 cheeses while if it made the same amount into 10 cheese a day it would save a nice little sum during the summer. A maker making 1 cheese a day less would be a saving of.

$$
\begin{aligned}
& \text { One bandage .................. ......... ...... ................... . } 02 \\
& 1 \text { cheese box ........ ...... ........ ............... ......... . . } 12
\end{aligned}
$$

or $\$ 12.30$ per month besides a saving to buyers. A small cheese has the same amount of flat surface as a larger one which amounts to about 2 lbs on every cheese, which has to be cut off and thrown away on
account of laying on range when curing and having a greasy taste beside a lot of other little things.

So it would be to the cheese-makers' adrantage to make a large neat clean cheese ; it would make better prices for cheese and help to get better wages for good makers.

When a cheese-buyer goes into a cheese factory and finds everything neat and clean, it gives him the impression that the cheese must be very nice.

The eye is the first thing to be suited.
Proprietors of factories are a little neglectful about their whey vats. When they hire their makers they should not fail to pat into their contract, for them to wash their whey vat every day. There are several whey vats that are washed only once a year; this makes a very bad smell around the factory and besides it taints the milik.

At the factories I gave several lectures to the patrons on care of milk and feeding cows. I found at my second visit to factories that my lectures had done some good as milk came in much better.

I hope that the makers will try and make an improvement for the coming season. They will not regret it as the time has come when if we do not work alltogether and make improvements, we shall go brhind.

Annexed will be found a list of factories which I visited this season.
The whole respectfully submitted.
C. E. STANDISH,

Inspertor.
Hatley, Que., Dec, 20th 1901.

To the Honorable F. G. M. Dechene,

## Minister of Agriculture,

Quebec.
Sir,
I have the honor to submit my first annual report as inspector of butter factories for your department.

I began my inspections on the 13 th May and completed them on the 12th November. I made 173 risits to 90 factories. I went three and eren four times to some factories, in this way meting the request of the manufacturers and owners. They hoped by my help to improre the quality of their output. In beginning this report, I cannot forget the praisw worthy efforts of your government to insure the constant progress of the dairy industry in the Province of Quebec. On the other hand, I have erery day found how important our rôle is in the development and perfecting of this industry.

I request a favor from the government which would be much appreciated by several localities in the counties of Matane and Gaspé.

We know that the good name of our dairy products in England partly depends on the cold storage compartments on steamers. Thauks to them, our butter reaches Europe in good condition.

Unfortunately the boats carrying the dairy products from Matane and Gaspé to Quebec and to Montreal, are not provided with refrigerators. Serious losses are incurred through this by farmers who earnestly wish to ship produce of the best quality. Your government would improre the situation by installing refrigurating apparatus in the boats I refer to.

In my tour of inspection, I generally found good makers in the large butter factories. The men are devoted to their work always eagerly look forward to the inspector's risit; acquire all the information necessary for the success of their factory; regret that they do not meet us oftener and keep us longer. These factories, as a rule, ship good produce.

It is not always the same with the small factories. The owners do not. always secure the services of a model manufacturer.

The makers who possess little or no knowledge and are badly paid, do not kunw how to control the ripening of the cream. Want of cleanliness decreases the repute of the butter.

It is impossible, in fact, in a neglected factory to obtain a product which will keep in good condition. When our butter is paid for according to its quality, we shall have made a great step in adrance in this industry There would then be a praiseworthy emulation between the manufacturers who would always be desirous of getting information from the inspector, in order to produce first class butter.

Two many factories in one locality is an obstacle to the dairy industry. The owners, in order not to lose their patrons, find it impossible to refuse badly cared for milk. In small factories, the apparatus is too often defective. Our farmers thus incur unfortunate losses.

Heat is complained of in certain factories. Some manufacturers in order to excuse their negligence or ignorance, constantly blame the very high temperature as the evident cause of the inferior product they ship.

Let us provide our factories with the necessary apparatus; have a good cold storage compartment; secure the services of an honest manufacturer, and intelligent workman; refuse badly prepared milk, and we can always count upon a first class product.

The farmers wish to attain this end. They also appreciate the agri* cultural lectures which are calculated to produce most happy results.

The lecturers should strive to make the farmers understand the necessity of bringing properly prepared milk to the manufacturer. They should therefore explain at length in what condition the milk must be brought to the factories.

I am happy to say that the lectures are, like the inspector's visits, a great encouragement to the farmers.

Upon my second visit to the butter factories, I have always found a very marked improvement in the dairy products. I have deroted all my efforts to securing in my inspection district uniformity in the products in order to obtain permanent success in the English market.

When the farmers and manufacturers follow the good advice of the lecturers on agriculture and of those who are at the head of the derelopment of the dairy industry in the Province of Qutbec, we shall be certain of obtaining the highest prices in England for our dairy produce.

The whole respectfully submitted,
Your humble servant,
J. A. TALBOT,

Inspector.
L'Islet, December 1901.

## EXPERIMENTS IN THE IMPROVEMENT OF THE MANDFACTURE OF CHEESE.

Honorable F. G. M. Déchène,
Minister of Agriculture,
Quebec.
Sir,
We hare continued this year the experiments begun last year for improving the method of making Cheddar cheese in the Prorince of Qutbec.

Last year, we determined the points to which special atteution had to be given : we wished to verify this year the conclusions at which we had arrived. We proposed trying a special method, applicable to the country, by which a cheese can be made much resembling English cheese.

But we hare been considerably impeded in our experiments, first by the great heat which prevailed this summer, and then by the want of suitable liquids upon which we could absolutely count for determining the acidity of the milk and whey during the process of manufacture.

To make cheese according to the English method, acidity should scarcely txceed 20 pounds of lactic acid per 10,000 pounds of milk, and we could not always get milk sufficiently sweet. Moreover, in Englaud, the temperature in factories remains in the neighbourhood of $75^{\circ} \mathrm{F}$. During our experimeuts, which took place at the St. Hyacinthe Dairy School, we obtained in the factory room a temperature keeping at about $85^{\circ}$ and often much higher.

Under such conditions and especially with milk already kept too long, it was absolutely impossible to follow the English method, acidity being dereloped too soon in the whey, and we had to follow more closely the ordinary method which is very well suited to this high temperature.

We worked eight days in June, from the 18th to the 26 th ; eight days in July, from the 23 rd to the 31 st, aud lastly, two days in October, the 8 th and 9 th.

In June, the temperature of the room at first kept about $80^{\circ}$, but the not weathrr setting in, on the $2 b^{5}$ th of June we had the temperature as high as $88 \frac{1}{2}{ }^{\circ}$ at $2.20 \mathrm{p} . \mathrm{m}$; on the 31 st , secing that the temperature did not lower, we had to postpone our experiments till later.

In July, we commenced with the temperature at $84^{\circ}$, but from the 27 th to the 31 st, it rose to about $86^{\circ}$, and we had again to give up our trials for a longer time. In October, we thought to have a more farorable opportunity, and to be able to try the Euglish chrese. We fixed the date for th. 8 th to resume our attempts; but the weather again becoming hot, we had once more to abandon the experiment.

As regards the acidity of the milk brought to us by our patrons, it was nearly always higher than 20 or 21 , and it was the exception when we receibed any having less than 20 In some cases we had 24 of acid.

Under such conditions, it was almost impossible to succeed in the experiments we wanted to make, and we had to change our plan entirely.

The following are the different points we tried to elucidate :

1. The influence of the duration of curdling ;
2. Trial of the effect of temperature apon the putting into moulds;
3. Trial of the duration and force of pressure upon the quality and aroma of cheese;
4. Trial of the influence of the temperature in the cooking ;

We had much difficulty in obtaining the conditions of temperature and acidity required for the success of these experiments, and in spite of repeated attempts, we may say that it has been impossible for us to obtain them completely.

The conclusions to be derived from these experiments are :

1. To be able to imitate English Cheddar, it is first necessary to improve the quality of milk in the Province.

As a rule, the patrons do not scald their cans. We hare receired milk which, at night, only showed 16 to 17 acidity; we kept it at a temperature of $60^{\circ}$ during the night, and the next day, in spite of that, the acidity was in the neighborhood of 23. In England, milk indicating 17 at night, scarcely possesses more than $17 \frac{1}{2}$ or 18 in the morning after being kept the night at a temperature of $78^{\circ}$

When the cans are not scalded, the microbes which they contain are developed in the milk put into them and form, as it were, a ferment which accelerates far too much the development of lactic acid in the manufacture of cheese.
2. The factories have to be improved so as to protect them from excessive and rapid changes of temperature, which are a characteristic feature of the climate of this province.

As long as these two requirements have not been obtained, it will be very difficult to imitate English Cheddar perfectly, at least in the months of July, August and part of September: perhaps, in the autumn, it might be possible, under present conditions, but with milk sufficiently sweet.

> Respectfully submitted,
> GABRIEL HENRY.

## COMPETITION OF DAIRY PRODUCTS

## The Honorable Minister.

of Agriculture,
Sir,
I have the honor to submit the following report on the competitions of Dairy Products held during the year.

The first two were held in Montreal at the Gould Cold Storage on the 291h June and 31st August. The third took place in Quebec at the Quebec Cold Storage on the 12th October.

The improvement in the products exhibited was chiefly as regards appearance which is an important matter.

As regards the butter the chief defects noted are the following: Bad quality of the parchment paper with which the boxes are lined; upper surface of the butter badly arranged; too much salt in some butter in boxps and not enough in other samples in tubs; milky, greasy, marbled butter.

These defects could easily be aroided with a little care and by working the butter at a suitable temperature. But the defects in connection with aroma and flavor caused the greatest loss of points. Some had a flavor of grass; others were sour ; ot'aers had a flavor of oxydized fatty matter. Some peculiar and very disagreeable flavors and aromas were also found to exist.

The defects in aroma and flavor are certainly due either to the bad quality of the milk used or to want of care in ripening and working the cream.

Manufacturers must be advised more strongly than ever to be very serere with regard to the quality of the milk supplied by patrons; they should pitilessly refuse all milk that has not been sufficiently aerated and that is brought in dirty cans.

The quality of the cheeses examined was certainly better, on the whole, than that of the butter; some of really first quality were found.

We must nevertheless again point out the want of care in packing ; the boxes were not strong enough and were not stamped; their dimensions were not suited to the size of the cheeses they contained ; the cloths were too long and the cheeses badly shaped.

The defects in aroma and flavor were chiefly due to the quality of the milk used and want of cleaniiness in manufacture; the smell of whey in particular is due to nothing else.

There are also defects in aroma and flavor the cause of which is difficult to determine : the flavor of Pruit, for instance. Others had a kind of heated flavor due to ripening under improper conditions or to the cheese having been exposed to heat. Excess of humidity and acidity are also pointed out and this is frequently due to want of firmness of the curd in the whey. Some cheeses, on the other hand, were too dry owing to excess in a contrary direction.

## FIRST COMPETITION

Held in Montreal 29th June 1901.
Judges:
For butter:-Messrs. J. A. Vaillancourt and E. A. Brice.
For cheese:-Messrs. J. A. Vaillancourt, E. Bourbeau and P. W. McLagan.

## PRIZES AWARDED:

Butter.

1. Mathias Dufresne, Ste-Thérèse, Co. Terrebonue 98 pts
Silver Medal, 1rst class diploma and $\$ 10.00$ in money.
2. George Cayer, L'Ange-Gardien, Co. Rouville ..... 97
Silver medal, 1rst class diploma and $\$ 9.00$ in money
3. Orila Bouchard, Sherbrooke-East, Co. Sherbrooke ..... 95
Bronze medal, 2nd class diploma and $\$ 5.00$ in money.
4. E. Brosseau, St-Saureur des Monts, Co. Terrebonne. ..... 94⿺辶 ${ }^{\prime}$
Bronze medal, 2nd class diploma and $\$ 4.00$ in money.
5. J. A. Vinette, Holton, Co. Chateaugnay ..... 93 "
Bronze medal, 2nd class diploma and $\$ 1.00$ in money.
6. Thomas Durnin, St-Stanislas, Co. Beauharnois. ..... $93 \frac{1}{2}$ "
Bronze medal, 2nd class diploma and $\$ 2.00$ in money.
Cheese.
7. Emile Lemay, Thurso, Co. Ottawa. ..... $93 \frac{1}{2}{ }^{\prime \prime}$
Bronze medal, 2nd class diploma and $\$ 200$ in money.
SECOND COMPETITION
Held in Montreal, 31st Angust 1901.
Judges:
For butter:-Mssrs J. D. Leclair, J. A. Vaillancourt, E. A. Brice.For cheese :--Mssrs P. W. McLagan, E. Bourbeau, J. A. Vaillancourt.
PRIZES AWARDED:
Butter
8. J. E. Mercier, Varennes, Co. Verchères ..... 95늘 "
Bronze medal, 2nd class diploma and $\$ 6.00$ in money.
9. A. Martel, Brompton Falls, Co. Richmond ..... 95 "
Bronze medal, $2 n$ d class diploma and $\$ 5.00$ in money.
10. P. Gaudreault, St-Basile le Grand, Co. Chambly ..... 93
Bronze medal, 2nd class diploma and $\$ 1.00$ in money.
4 R. Auger, Henrysburg, Co. Missisquoi ..... 93 pts.
Bronze medal, 2nd class diploma and $\$ 1.00$ in money.
5 Alfred Ostigny, Stottsville, Co. St. John ..... 93 "
Bronze medal, 2nd class diploma and $\$ 1.00$ in money.
CHEESE.
11. George Barrette, Garthby West, Co. Wolfe ..... 97 pts.
Silver medal, 1st class diploma and $\$ 9.00$ in money.
12. Joseph Bouchard, Les Eboulements, Co. Charlevoix ..... 96年"
Bronze medal, 2nd class diploma and $\$ 8.00$ in money.
13. Adjutor Lepage, Garthby, Co. Wolfe ..... 96 "
Bronze medal, 2nd class diploma and $\$ 7.00$ in money.
14. Arthur Hardy, St. Tite, Co. Champlain ..... $94 \frac{1}{2}$ "
Bronze medal, 2nd class diploma and $\$ 4.00 \mathrm{in}$ money.
15. J. P. Moreau, St. Tite, Co. Champlain ..... $94 \frac{1}{2} "$
Bronze medal, 2nd class diploma and $\$ 4.00$ in money.
16. J. Ls. Bibeau, St. Flavien, Co. Lotbinière ..... 94
Bronze medal, 2nd class diploma and $\$ 3.00$ in money.
THIRD COMPETITION.
Held in Quebec, 11th October 1901.
Judges:For butter:-Messrs J. A. Vaillancourt, J. D. Leclair and E. A. Buie.For cheese :-Messrs E. Bourbeau, P. W. McLagan and J. A. Vaillan-court.
PRIZES AWARDED :
BUTTER
17. Jean-Bte. L'Etoile, St. Agapit, Co. Lotbinière ..... 98 pts.
Silver medal, 1st class diploma and $\$ 11.00$ in money.
18. Adélard Lavoie, St. Jérôme, Co. Lake St. John. ..... $95 \frac{1}{2} \mathrm{pts}$
Silver medal, 2nd class diploma, $\$ 5.00$ in money.
19. Eugène Breton, St. Epiphane, Co. Témiscouata. ..... $94 \frac{3}{4}{ }^{\prime}$
Bronze medal, 2nd class diploma, \$4.50 in money.
20. Philibert Pomerleau, St. Agathe, Co. Lotbinière ..... $94^{\frac{3}{4}}$
Bronze medal, 2nd class diploma and $\$ 4.50$ in money.
21. Auguste Pelletier, Village des Aulnaies, L'Islet ..... 95
Bronze medal, 2nd class diploma and $\$ 5.00$ in money.
22. Athanase Morin, St. Cyrille, Co. l'Islet. ..... 95
Bronze medal, 2nd class diploma and $\$ 5.00$ in money.
23. Mathias Dufresne, Ste. Hélène, Co. Terrebonne. ..... 95
Bronze medal, 2nd class diploma and $\$ 5.00$ in money.
24. Aug. Begnoche, Brompton Falls, Co. Richmond ..... 94䅉"
Bronze medal, 2nd class diploma and $\$ 4.50$ in money.
25. Edouard Maurais, Coaticook Co. Stanstead ..... 94
Bronze medal, 2nd class diploma and $\$ 3.00$ in money.
26. Jean-Bte St. Pierre, St. Paschal, Co. Kamouraska. ..... 94
Bronze medal, 2nd class diploma and $\$ 3.00$ in money.
27. Guillaume St. Pierre, Brompton Falls. Co. Richmond. ..... 9.4
Bronze medal, 2nd class diploma and \$3.50 in money.
28. Eugène Métivier, Beaurivage, Co. Lotbinière. ..... $93 \frac{1}{2}$ "
Bronze medal, 2nd class diploma and $\$ 2.00$ in money.
Cheese.
29. Emile Boucher, St. Jean Deschaillons, Co. Lotbinière. ..... 96这"
Bronze medal, 2nd class diploma and $\$ 8.00$ in money.
30. Zéphirin Desharnais, St. Albert, Co. Arthabaska. ..... 96즐
Bronze medal, 2nd class diploma and $\$ 8.00$ in money.
31. Théophile Levesque, Old Lake Road, Co. Témiscouata. ..... $96 \frac{1}{2}$ "
Bronze medal, 2nd class diploma and $\$ 8.00$ in money.
32. Henri Ouellet, St-Patrick's Hill, Co. Arthabaska. ..... 96 pts.Bronze medal, 2nd class diploma and $\$ 7.00$ in money.
33. François Brassard, Laterrière, Co. Chicoutimi. ..... 94 "
Bronze medal, 2nd class diploma and $\$ 3.00$ in money.
34. Xénophon Bergeron, Methot's Mills, Co. Lotbinière ..... 93装"
Bronze medal, 2nd class diploma and $\$ 2.00$ in money.
35. Placide Sabourin, Ste-Marthe, Co. Vaudreuil ..... 93 "
Bronze medal, 2nd class diploma and \$1.00 in money.
36. Peter Monagham, Ste-Marthe, Co. Vaudreuil ..... 93 "
Bronze medal, 2nd class diploma and $\$ 1.00$ in money.GABRIEL HENRY,Secretary of Comptitiox.
VETERINARY SCHOOLS
SCHOOL OF COMPARATIVE MEDICINE AND VETERINARY SURGERY OF MONTREAL.Report for the first Quarter of $\mathbf{y}$ the 15th year 1900-1901.
The Honorable Ministerof Agricuture,Quebec

Sir,
I have the honor to submit the report for the first quarter of the 15 th year of the School of Comparative Medicine and Surgery of Montreal, University Building, 185, St. Denis street.

Hoping that you will be satisfied with the information it contains as well as with the number of pupils this year.

I have the honor to be, Sir,

Your obedient servant, V. T. DAUBIGNY,
Director and Secretary.

Montreal, 22nd December 1901.

## WORK

The course of lectures began on the 26 th September and continued to the 21st December instant.

## Names of Students

3rd Year.-Avila-Isidore Telmosse, St. André Arelin.

2nd Year.-Benoit Brault, St. Louis de Gonzague ; Godefroy Langevin, St. Timothée ; Auguste Delvecchio, Longueuil.

- 1st Year.- Bte-Raoul Telmosse, Montreal ; J.-A. Ratté, Lotbinière ; Alphonse Rousseau, Lévis; J.-Raoul Séguin, Rigaud; J.-C. Reid, St. Urbain ; Philibert Dubois, St. Agathe de Lotbinière ; Aibert Fréchette, St. Ephrem d'Upton.

1st and 2nd Year.-Alexandre Clément, Lachine; Alphonse Charlebois, Laprairie ; A. A. Etienne War, (U.S.) ; Philippe Savoie, Boucherville.

This makes 15 in all but the last four do not attend regularly and will probably give up attending during the session.

Last year four students in human medicine matriculated for the reterinary course. I think they have given up both human medicine and veterinary surgery.

So that there are eleven students who attend regularly and work assiduously wishing to become competent veterinary surgeons. I may add that for five years there nave not been as many applications as this year which leads me to say that in a year or two the school will have a good contingent of students.

During this quarter, surgical operations have been performed on living subjpects and the following table shows the rarious operations with the names of the students who performed them under the direction of the Professor of Surgery :

## List of operations from 26th September to 21st December 1901.

1. Bleeding, corner of eye
2 " jugular vein
3 " thorax, under the skin
4 " saphena
5 " foot7 Suton, with thread8 " for sheep-rot9 Ligature, glosso facial artery
10 Transcurrent cauterization1112 Cauterization with fine points
13 sub-cutaneous
14 Tracheotomy
15 Tracheotomy
16 Thoracocenthesis
17 Catheterism, œsophagus18 Paracinthesis19 Enterotomy20 Ischia! urethrotomy
21 Ovariotomy in a mare
22 Frontal trepanning24 Dockıng tail
25 Thenatomy, plantar
26 Thenatomy
27 N urotomy, plantar phalangism.
28 Neurotomy, plantar
29 Neurotomy, cubito-radical
30 Neurotomie, sciatic nerve
31 Quarter crack operation by $V$ drain
32 Cartilaginous quittor operation
33 Catheterism, urethra
34 Amputation of ears
35 Castration of a horse
36 Twisted sutures
37 Sutures of the intestines
38 Sutures with Giponis points
39 Castration of a dog
40 Operation for fistula of the withers
41 Dorsal apophysis resection
42 Remoral of a melanotic tumor
43 Amputation of penis

Names of Students.
MM. Rousseau.

Langerin.
Reid.
Etienne.
Ratté.
? Tubois.
Giguère.
Dubois,
Brault.
Raoul Lesage.
Brault.
A. Talmosse.

Langevin.
Reid.
Etienne.
Fréchette.
Dubois.
Fréchette.
Brault.
A. T'almosse.

Brault.
Ratté.
A. Talmosse.

Giguère.
A. Talmosse.

Degauchis.
A. Talmosse.

Brault.

Brault.
A. Talmosse.

Le Professeur.
lubois.
D. Proferseur.

Delmecchio.
Langerin.
A. Talmosse.

Etienne.

The school has added four courses not given elsewhere.

> Operative Surgery. Medical clinics on the patient.
> The exterior of the horse.
> The theory of farriery.

In addition to the operations performed by the stadents, the latter assisted the professors in the hospital and treated the following :

$$
\begin{array}{ll}
\text { Horses......................... ......... } 326 \\
\text { Cows........ ......... ................... } & 49 \\
\text { Dogs..... ...... .......................... } 106 \\
\text { Poultry. ..................... .. ........ }
\end{array}
$$

During the last three months the director of the hospital was called upon to examine or attend various animals affected with contagious diseases and the students had the advantage of observing the nature and symptoms of the diseases set forth in the following table.

| Contagious diseases. | Horses. | Cows. | Dogs. | Poultry |
| :---: | :---: | :---: | :---: | :---: |
| Anasarca .. | 4 | 3 |  |  |
| Actinomycosis....... |  |  |  |  |
| Diseases of young dogs |  |  | 17 | ...... |
| Tetanos.... |  | ........ |  |  |
| Pleurosthenos.. .. |  |  |  |  |
| Tuberculosis... |  | 81 | 3 | 4 |
| Vitulary Fever........ |  |  |  |  |

Such is the work of the 1st quarter of the 15th year of the School of comparative Medicine and Veterinary Surgery of Montreal which its director has the honor to submit to the Honorable Minister of Agriculture in Quebec.

V. T. DAUBIGNY,<br>Director and Secretary.

Montreal, 22nd December, 1900.

## Report for the Second Quarter of the 15th year.

Montreal, 7th August, 1901.
To the Honorable Minister of Agriculture,

## Quebec.

Sir,
On the 22nd December last, I sent you the report for the 1st quarter of the year 1900-1901 of the School of Comparative Medicine and Veterinary Surgery of Montreal, affiliated with Laval University and to-day I have the honor to send you the report for the second quarter.

All the students came back on the 7th January, 1901 to continue the course to the 25 th March last.

During this quarter all the students continued to perform surgical operations on living subjects, to aitend lectures ou medical clinics and practical anatomy. This year the students distinguished themselves in all the subjects taught and I observed that they felt encouraged.

On the 27th and 28th March the written and oral examinations took place, the latter before the examiners appointed by you, Messrs H. Pilon V. S. of Vaudreuil and P. P. Gatien V. S. of St. Hyacinthe.

Mr. A. J. Talmosse of St. André Avelin obtained the diploma of doctor of veterinary medicine, and Messrs. B. Breault, Godfroi Langevin, A. Delvecchio and J.-Bte Laval Talmosse the diploma of bachelor of veterinary medicine.

Since the closing of the course I have had three applications for attendance and I hope that at the reopening on the £nd October next, there will be as many new pupils as last year. That would be a satisfactory contingent.

This sum was expended as follows :
Paid to professors ...... ......... ......... ...... ....... ...... \$1,800 00
Paid for purchase of horses (practical anatomy and
operative surgery)................. .................. 3400
Paid for advertizing course, annuals and circulars, expenses of management, reception of examiners and professors on examination day and travelling in interest of school.................
$13795 \quad 1,97105$
Balance to credit of school
\$ 3890
I deem it expedient to inform you that the clinics at the infirmary of the school have necessitated the making of new stalls and that while this addition was being made the director of the infirmary effected important improvements so that at present the establishment meets with great avantage the requirements of a veterinary establishment.

I have the honor to be,
Sir,
Your most obedient servant,
V. T. DAUBIGNY,

Director and Secretarg.

## McGILL VETERINARY SCHOOL.

## ANNUAL REPORT FACULTY OF COMPARATIVE MEDICINE AND VETERINARY SCIENCE, McGILL UNIVERSITY, MONTREAL.

(Late Montreal Veterinary College.)

To the Honorable Comimissioner of Agricultuee, Quebec.
Sir,
I have pleasure in submitting the following report of the twelfth session of the Faculty (being the thirty-sixth of the Montreal Veterinary College.)

Lectures commenced on the 21st September and were continued till the end of March.

The number of students who registered was 17 of whom 15 attended the full course viz: 6 from the United States, 7 from Canada and 1 from England.

The reports from Professors of the attendance and diligence in study have been very satisfactory--the usual Christmas and Spring examinations were held-as follows :

First year :-Pass Examinations in Botany, Histology (oral) Chemistry, Anatomy, Physiology, and on all other subjects in the course of this year.

Second year :-Pass Examinations in Chemistry, Physiology, Histology (written), and Anatomy, in addition to sessional examinations in these and the other subjects of the year.

Third year:-Pass examinations in practice of Medicine and Surgery,
general and special pathology, veterinary obstetrics, diseases of cattle, and materia medica and therapeutics and anatomy.

Written and oral examinations were held from time to time during the session, attendance at these being compulsory. The standing attained at these examinations being taken into account at pass examinations.

The following have passed their examinations in the order given below:-

VETERINARY MEDICINE AND SURGERY-(Third year.)
O. T. Amyrauld, J. T. Rork, D. S. Tamblyn.

## CATTLE PATHOLOGY-(Third year.)

D. S. Tamblyn,
J. T. Rork,
O. T. Amyrauld.

PATHOLOGY-(Third year.)
Geo. A. Kenuedy,
J. T. Rork,
D. S. Tamblyn.
W. Manchester, O. T. Amyraůld.

ANATOMY- (Second year)
A. D. Harrington,
W. R. Blair,
A. R. Douglas.
S. Hadwen,
W. H. Spear.

PHYSIOLOGY-(Second'year.)

| A. D. Harrington, W. R. Blair, | S. Hadwen, <br> L. Doyle, W. H. Spear. | A. R. Douglas. A. S. Clark. |
| :---: | :---: | :---: |
|  | HISTOLOGY-(Second year.) |  |
| S. Hadwen and | W. R. Blair(equal.) | W. H. Spear. |
| A. D. Harrington, | L. Doyle, | A. S. Clark. |

## HISTOLOGY—(First year)

BOTANY
Hugh Gaw

## CYNOLOGY

| S. Hadwen, | Hugh Gaw, | A. S. Clark. |
| :--- | :--- | :--- |
| W. R. Blair, | A. D. Harrington, | O. T. Amyrauld. |
| A. R. Douglas, | D. S. Tamblyn, | G. Halcro. |
| W. H. Spear, | J. T. Rork. |  |

The Convocation for conferring degrees was held at the University on Friday 29th March. The proceedings were opened by the presentation of the Faculty's Report of pass examinations as above, the awarding of prizes, followed by conferring of degrees. Principal Peterson presided : there were also present, the Vice Principal Dean Johnson, Dean Borey, Dean Walton, Professors Girdwood, Mills, Penhallow, Adami, McBride, Capper, Charles McEachran, Baker, Dr. Higgins, Dr. Moore, Dr. Sagden, \&c., \&c.

Addresses were delivered by the Principal and the Dean of the Faculty, the Valedictory being delivered by Dr. O. T. Amyrauld on behalf of the graduates.

Of five who presented themselves for final examination three succeeded in passing-two having failed, they will be allowed to present themselves at the Christmas examinations when if they pass, the degree will be conferred.

## GRADUATES OF 1901

O. T. Amyrauld.
J. T. Rork.
D. S. Tamblyn.

PRIZES.
Veterinary Medicine and Surgery.-O. T. Amyrauld.
Cattle Pathology.-D. S. Tamblyn.
Materia Medica.-Geo. A. Kennedy.

Anatomy.-A. D. Harrington.
Physiology.-A. D. Harrington.
Chemistry.-A. D. Harrington.
Extra Prizes: For the best essay read before the Veterinary Medical Association :

1st J. T. Rork ;
2nd D. S. Tamblyn;
3rd O. T. Amyrauld.
The following changes have been made in the teaching staff, viz:
Dr B. Arnold Sugden has been appointed Lecturer on Materia Medica, and Dr Charles Higgins Assistant to the Pathologist.

I hare pleasure in reporting that the Graduates from the School of Veterinary Science continue to be in demand and important positions are filled by them both in Canada and the United States, and that its work is being greatly appreciated throughout both countries owing to its practical value both from its scientific and economic bearing on the great commercial industry, viz: general agriculture, live stock and the products of the farm and ranch.

I have the honor to be
Sir,
Your obedient servant,
dUncan mceachran,

# OFFICIAL LABORATORY 

## OF THE

## PROVINCE OF QUEBEC.

To the Honorable Mr. Déchène,
Minister of Agriculture,
Quebec.
Sir,
I have the honor to submit the report of the operations of the Official Laboratory for the year 1900-1901.

With your kind leare, I spent the first months of the year (from 5th. July to 20th. October) on a holiday trip in Earope. It is true that the holiday was a long one. I thought that I could apply for it; I even flattered myself that I had a certain right to the favor, considering that in the six years during which I have discharged the duties of chemist of your department, I had enjoyed no holiday whatever. I might have absented myself during the school vacations, but at that time I was detained in the laboratory by analyses called for by the dairy industry competitions.

I had hoped to have been able, during my stay in Paris, during the great exhibition, to address a few letters to the Journal of Agriculture I still retain the notes which I committed to paper for the purpose. But, in the range of the chemical sciences, I perceived nothing of immediate interest to the readers of the Journal. I therefore divided my time between the different scientific congresses and especially between the two congresses of chemistry (congress of chemistry, pure and simple, and congress of applied chemistry). I prepared a report of my mission and it is from this report that I take the few notes, set down further on, upon certain
questions discussed during the sittings of the congresses on chemistry. I have reason to think that these notes are not devoid of interest.

In the month of May last, I requested you to be good enough to liberate me from the personal engagement into which I entered, in 1895, with your department to act for it in the capacity of chemist and director of the Official Laboratory of the Province.

I wrote you then and I repeat that I had only come to this decision for purely private and altogether personal reasons. I cherish the happiest recollection of my relations with all the staff of your department during the exercise of my functions.

For a number of years I have been making chemical analyses. Work of the kind is absorbing, sometimes disagreeable and often wearisome. I therefore thought that a chemist younger in the career and consequently more ardent at the business, would be in a position to render you more service than I could.

Dr. Benoit, of St-Hyacinthe, had worked with me in the Laboratory for several months. He ably assisted me in difficult analyses, such as the analysis of wines and tobaccos. I recommended this gentleman to you and you have appointed him to replace me.

I have handed over to my successor all the laboratory of bacteriology and certain other apparatus, of which you authorized the purchase on account of your department.

I have retained some small accessory parts of a microscope etc made in Germany, which I would be sorry to part with. These parts moreover do not fit Dr. Benoit's microscope, which is of a different make to mine. But though they have become deteriorated by pretty prolonged use, I send you their value in money on the basis of their purchased price.

When the value of the apparatus which I hand over to you is compared with the bills which you paid, a difference of a couple of hundred doilars will be noted. This difference represents the apparatus broken and the chemicals used in the analyses, that is to say, the ordinary expenses of the maintenance and working of the laboratory. Spread over a term of six years it represents an annual expense of some thirty dollars, which, I think, you will conseder very small.

List of Apparatus \&c., handed over to Dr. Benoit
1st Invoice :
1 Autoclave.
1 Incubator.
1 Nivellating table.
1 Pasteur hot air sterilizer.
5 Brass stands for culture flasks.
3 Doz. McFarlane tubes.
2 Condensers for McFarlane tubes (broken).
3 Bunsen burners.
1 Plate for vacuum warm culture.
1 Small heater for vacuum warm culture.
1 Plate for warm culture under the microscope.
2 Portable refrigerators.
1 Box for samples.
1 Chest for cold water circulation.
1 Doz. bottles for bacteria culture.
1 " Staining dishes.
1 " " " with lateral perforations.
1 Ball Condenser (soldered).
1 Doz. tubes for cultures.
1 lot rubber caps.
1 Plate Sterilizer.
4 Petri dishes.
9 Conical culture flasks.
15 Straight
1 Hot water Filter.
4 Pasteur flasks for cultare mediums.
8. " " for vacuum culture.

18 " " for culture on potatoes.
I Spectro-microscope.
I Camera lucida.
1 Condensing Lens.
I Tournette
1 Warming Table.
1 Electric battery ( 6 elements) without jars.
1 Platinum needle.

1 il gelatine.

1 Microtome.
1 Razor for microtome.
1 Standard Alcoholometer.
1 Quadruple Vertical Condenser.
1 Range of Bunsen Burners.
2 Baskets for culture tubes.
8 Glass Stands.
4 Graduated flasks of 100 to 110 cc.
1 doz. sample bottles and case.
1 Small hand Centrifugal.
2nd Invoice.
1 Scalpel.
1 Piuchers, with stop.
1
1 Table for paraffining sections.
1 Henocque Hemaloscope.
5 Concave-centered Slides.
1 " " " for living organisme.
1 Perforated swimming cup to stain sections.
3 Round Staining dishes.
1 Thermometer 33-44 in ${ }_{10}^{10}$.
2 Graduated burettes $1-5$ in $\stackrel{1}{20}$.
1 Six jar brass battery.
1 brass box for refrigerator.
1 Refrigerator.
1 Wiessnegg Furnace.
1 Sand-bath.
1 Thermometer 0-100 in $\frac{1}{10}$.
1 Graduated Cylinder, 250cc, with tap.
8 Rings for plates.
5 Staining dishes, different sizes.
2 Graduated flasks 7-10 in $\frac{1}{5}$.
I Microscope Accessory-box.
1 Plate. 12 cavities, for staining.
2 Giass stands.
3 Pasteur tubes.
1 Water turbine.
7 Small glass tubes.
1 Stand for 72 flasks.
1 Stand, iron.
30 Flasks.
5 Babcock flasks.
3 Petri capsules.6 Conical Pasteur jars.
2
20 Flasks.
1 Metal stand.
Received
(Signed) LS. VICTOR BENOIT,
Director of the Laboratory.
LIST OF MICROSCOPE ACCESSORIES, \&C, KEPT
1 Stage ..... worth. $\$ 17.00$
1 Eye piece No. 4 ..... 2.00
1 " " No. 0 ..... 2.00
1 Objective 80 mm . Leitz ..... 8.00
1 ..... 4.00
1 Condenser ..... 8.00
1 Cork borer ..... 5.00
1 Pestle ..... 1.25
1 Emery wheel to grind glass ..... 1.25
Sundry small pieces ..... 11.00
Total ..... $\$ 60.00$
Presented in return a cheque for $\$ 60.00$ accepted by La Banque Nationale, payable to the order of the Accountant of the Department of Agriculture.

C. P. CHOQUETTE

St-Hyacinthe College, 1901.

## ANALYSIS OF WINES

I analyzed as carefully and minutely as possible three samples, of wine, two of them Spanish and one a French Sauterne. Wines of good brand are very often adulterated by watering or by fortifying and sometimes by both simultaneously.

Watering is simply a fraud. The addition of alcohol or fortifying is practised in order to impart keeping quality to wines intended for exportation.

The percentage of alcohol in wines sent abroad should not fall under 10 per cent and in sweet wines it should reach $12 \%$.

The fermentation of the very sweet musts or grape juices rarely develops more than $10 \%$ of alcohol. $2 \%$ of the latter must be added to them when intended for export. This addition is not deemed fraudulent.

In the analysis of wines guaranteed as pure, I endearor especially to determine the quantity of alcohol contributed by the must. The addition of alcohol and especially of grape alcohol prevents the direct ascertaining of the proportion of the alcohol of the must. But there is a law applicable to all wines-a law laid down by Pasteur and accepted by all chemical experts- namely that the glycerine which is found in all wines is in proportionate quantity to the natural alcohol. The relation of the weight of the alcohol to the weight of the glycerine (weight of the alcohol-weight of the glycerine) in a given weight of natural wine, is remarkably constant and comprised between 10 and 14 .

The proportioning of the glycerine is a delicate operation. After several tests of different processes, I have come to the conclusion that the process of the chemist Jean is substantially the quickest and most accurate.

This process consists in eraporating to the consistency of a syrup 100 to 200 cc . of wine with an excess of slaked lime. The residue is then treated with absolute or anhydrous alcohol or alcohol of at least $96^{\circ}$; the alcohol is evaporated to the constant weight with 20 grammes of litharge, which latter absorbs and retains all the glycerine. It is then .weighed and put into a Pasteur hot air sterilizer or into an oil-heated incubater at $170^{\circ} \mathrm{C}$., until it reaches the constant weight. The difference between the two weighings gives the weight of the volatilized glycerine.

I attach less importance in this analysis of wines to some other data such as the yield of acid alcolol and the aggregate of the weights of the sugar and the alcohol $\times 2$. They possess some value, I have no doubt, in the analysis of dry wines, but would lead me to erroneous interpretations in that of sweet wines on account of the particular mode of manu. facturing the latter.

Results of the Analysis.
I II III

Tarragona Tarragona Sauterne

| Deasity at $15^{\circ} \mathrm{C}$. | 1.0069 | 1.0205 | 0.9900 |
| :--- | :---: | :---: | :---: |
| Dry extract at $100^{\circ}$ c. p.c. | 6.12 | 9.5 I | 3.06 |
| Alcohol, in weight "" | 12.60 | 12.60 | 8.55 |
| Alcohol, in volume " | 15.56 | 15.56 | 10.62 |
| Total acidity, in tartaric acid p.c. | 0.750 | 0.675 | 0.825 |
| Volatile acids, in acetic acid "" | 0.039 | 0.055 | 0.055 |
| Ashes | " | 0.228 | 0.317 |
| Glycerine | $"$ | 0.300 | 0.208 |
| Sugar | " | 3.78 | 7.23 |
| Sug |  | 0.116 |  |

The proportion of alcohol-glycerine in the three samples is too great. There has been a considerable addition of alcohol.

## Cheese.

## I

On their return from Europe, Messrs. Bourbeau and Henry requested me to analyze two samples of cheese, which they had made in England, on the same day and with the same milk, under the direction-l thinkof Mr. Lloyd.

Both these cheeses were of the Cheddar type, but one of them had been made according to the English method and the other accordiug to the Canadian. The difference between them was marked as well in the flavor, as in the paste, the apparent humidity and even a little in the color, although both were white cheese.

I was ignorant at the time of the analysis as to which was the English

## and which the Canadian cheese. I was told later that the English cheese was No. 1.

The following is the result of the analysis.


From the economic and commercial standpoint, it is very important to note that the English cheese contains 3.60 p. c. more water than the Canadian article. Owing undoubledly to the method of manufacture, this excess of water is not apparent to the eye. I eren think that the Canadian cheese seemed the more watery.

Another fact revealed by the analysis is that these cheeses of the same age had not attained the same degree of ripeness. In fully ripened cheese, the caseine always presents a strong coefficient of solubility. The Canadian cheese shows 5.43 p . c. less of soluble caseine.

## Water.

In the month of October last, the Abbé Lebel, of St. Luc de Matane, forwarded to me three samples of water and asked me to ascertain if sample No. II showed any traces of contamination by the slop water from a neighboring creamery.

The three samples had been taken from a brook: No. I above the factory, No. II from a sort of reservoir, more or less enclosed and formed by a bend of the stream below the factory, and No. III below the reservoir.

The washings or slops from a creamery are chiefly soiled by the milk and salt. The milk rapidly disappears in running water and less rapidly in stagnant water through the action of different oxydizing agents. The salt is carred off by running water, but accumulates in stagnant water.

If the slops from the creamery found their way into the reservoir, I would have found undoubted proof of this in the proportion of salt in sample No. II. compared with the same proportion of salt in the two other samples.

In butter salting, the makers generally use 4 per cent of salt. The butter retains on an arerage 2 per cent of the salt, the remainder being carried off in the washing.

In the creamery, suspected of having contaminated the water in the reservoir, the maker had employed during the summer upwards of 500 Hb of salt, the washings of which had carried off over $200 \mathrm{\sharp b}$ s.

If only 10 per cent of the washings had flowed into the reservoir, they would have raised the proportion of salt not from 851 to 887 , according to the showings of the analysis, but from 85 to 2851.

Result of the examination of these three samples of water from St. Luc de Matane.
microscopic examination.
No.l. No. II. No. III. Infusoria in Infusiora in Infusiora in large numbers less numbers large numbers very active. and less active. and very active.

| Oyygen absorbed per litre ................ | 0.0025 | 0.00325 | 0.0025 |
| :--- | ---: | ---: | ---: | ---: |
| Sodium chloride (salt) per litre ........... | 000851 | 000887 | 0.00816 |
| Hydrotimetric degree. .................... | 16.1 | 16.1 | 15.2 |

The conclusion from this analysis does not warrant the belief that there was any marked contamination.

## WATER FOR THE USE OF BOITERS.

The boilers, and especially the boilers of butter and cheese factories,
often become deteriorated by the use of water drawn from artesian wells. This water is seldom soft like river water; it partakes more of the nature of mineral water. Very adhesive calcareous deposits sometimes form on the sides and tubes of the boilers and sometimes the case is graver still; they eat and finally pierce the tubes and boilers.

The waters, which form deposits are in the majority of cases charged with carbonate of lime. Their bad effects can be easily corrected by the addition of a few ounces of caustic soda, a substance known in the trade under the name of caustic. One to two ounces to 100 gallons of water are sufficient. Milk of lime also ${ }^{\text {ghives }}$ excellent results. About $\frac{1}{2}$ a pint of thick cream of lime is added per 100 gallons of water and briskly stirred; it is then left to settle during ten hours, after which the clear part is drawn off.

The waters which eat away boilers contain chloride of magnesium. Through ebullition, the chloride of magnesium becomes decomposed and gives off chlorydric acid which vigorously assails the iron. It is almost impossible to correct these waters. It is better to abandon their use altogether.

Mr. Trudean, Superintendent of the Quebec Southern Raiiway, sent to the Laboratory some water derived from an artesian well, asking if it could be used to produce steam in the locomotives.

This water yielded :

$$
\begin{aligned}
& \text { Total solids }=622 \text { per } 1,000,000 \text { parts. } \\
& \text { Chlorine }=23 " \\
& \text { Magnesium }=\text { Traces }
\end{aligned}
$$

I concluded from this summary examination that this water could be used in the locomotives, prorided always that the residue of the ovaporation was cleaned out from them oftener than where soft water properly so called is used In fact, a boiler evaporates nearly 30 tb of water per horse power and per hour. A boiler of 100 horse power, running for 10 hours, with water containing in total solids 622 parts per $1,000,000$, would accumulate about 20 lbs of solid matter.

## Analyses of tobaccos

I managed to analyze a second series of samples of "tobacco. Some of these tobaccos, under a foreign name, were grown in Canada; others were unquestionably authentic foreign tobaccos imported by the Em porium Cigar Factory at St. Hyacinthe :

No. 1. Havana, grown at St. Hyacinthe in 1898.
2. Quesnel, " " Joliette, 1897.
3. Connecticut," "Hyacinthe, 1897.
4. White Burley" " " 1899.
5. Canadian XXX " " "
6. Havana, " " " "
7. " cuttings from cigar covers, very old.
9. Connecticut, imported, 1899.
10. Porto Rico, imported by the factory, 1900 .
11. Wisconsin, imported, 1899.
12. Sumatra, imported, 1894.
13. " " 1896.
14. France, Département du Nord, 1899.

These tobaccos yielded to the analysis.
Nicotine. Ash. Lime. Potash.

|  | $\%$ | $\%$ | (\% in the ash.) |  |
| ---: | :---: | :---: | :---: | ---: |
| 1 | 1.72 | 24.16 | 18.24 | 22.13 |
| 2 | 3.65 | 19.72 | 22.64 | 21.69 |
| 3 | 3.11 | 22.40 | 17.20 | 19.17 |
| 4 | 3.76 | 18.09 | 17.88 | 20.19 |
| 5 | 3.27 | 22.48 | 2022 | 16.27 |
| 6 | 3.40 | 21.98 | 19.13 | 20.17 |
| 7 | 2.16 | 22.81 | 2325 | 21.87 |
| 9 | 270 | 26.14 | 23.72 | 20.19 |
| 10 | 1.62 | 25.33 | 25.13 | 20.20 |
| 11 | 2.97 | 2332 | 19.22 | 17.74 |
| 12 | 2.27 | 23.71 | 21.22 | 21.81 |
| 13 | 1.73 | 2118 | 20.77 | 22.17 |
| 14 | 420 | 19.2 | 23.19 | 18.13 |

The arerage composition of the 10 samples of tobacco under different names, grown in the vicinity of the city of St. Hyacinthe would be

| Nicotine. | Ash. | Lime. | Potash. |
| :---: | :---: | :---: | :---: |
| \% | \% | (\% in the ash.) |  |
| 3.43 | 20.24 | 16.57 | 20.33 |

Graduated phials for babcock apparatus.
At the request of Mr. Faucher, the Beauce county creamery inspector, I tested 25 graduated flasks intended for determining the quantity of fat by the babcock process.

11 phials ( $42 \%$ ) gave pretty correct indicatives.
5 phials marked $0.10 \%$ short.

| 5 | " | " | $0.20 \%$ | " |
| :--- | :--- | :--- | :--- | :--- |
| 2 | " | " | $0.30 \%$ | " |
| 2 | " | " | $0.40 \%$ | " |
| 1 | " | " | $0.50 \%$ | " |

The last five phials should not be used. The inaccuracy of 0.30 to $0.50 \%$ bears-it is true-over the whole scale, that is to say on $10 \%$. But for ordinary milk, whose indications are embraced between 3 and $4 \%$, there would be all the same an error of 0.10 to $0.16 \%$.

An inaccuracy of $0.20 \%$ may be tolerated. In ordinary readings it entails only an error of 0.06 to $0.08 \%$. But this phial should not be used during several months to test the milk of the same patron. A marked error might result from the aggregate of inaccurate readings.

## Thermometers

The same inspector, Mr. Faucher, brought me six thermometers, whose indications at $64^{\circ} \mathrm{F}$. were pretty nearly correct, but at a temperature of $92^{\circ} \mathrm{F}$. one marked 90 and the other 91.5 .

## Tablets to estimate acidity

It is unquestionable that the knowledge of the greater or lesser degree of the acidity of milk cream, \&c., is calculated to render important service.

The determining of an acid in the laboratory is a quick and easy operation. The necessary titrated alkaline liquors are usually on hand, but, outside the laboratories, the operation becomes delicate and sometimes requires much patience.

The tablets, containing an accurately calculated weight of alkali, simplify the work enormously. All that is needful is to dissolve them in a measured rolume of water and the titrated liquor is immediately ready.

I have had tablets prepared, the quantity of alkali in which is such that, on being dissolved in twenty five cubic centimetres of water (2.5 c.c.) to each pastille, they furnish a solution, of which 1 c.c. equals 0.10010 of lactic acid in $10 \mathrm{c} . \mathrm{c}$. of milk or cream etc, etc. A burette of 10 c . c, dirided in ${ }_{10}^{1}$ is used. Each division corresponds to $0.01 \%$ of lactic acid.

I have sent to your department some hundreds of these tablets for distribution. I have still on hand a few dozens, which I will furnish on application.

## MAPLE SYRUP.

17 samples of maple syrup collected on the market of St. Hyacinthe were examined with the microscope in order to ascertain whether they had been adulterated with ordinary sugar.

These syrups were well made, were of normal density and had a perfectly authentic taste.

The microscopic examination revealed no trace of adulteration.
I still maintain that by following the process indicated last year, the microscope is the only instrument that can disclose, through search for the debris of vegetable cells, the addition of the crystallized sugar ot commerce to maple syrup or sugar.

## OTHER ANALYSIS.

I made besides the above a number of other analyses-of different ores, milk, wax, ochre, \&o., \&cc. These, however, constitute routine work the result of which interests the applicant only.

With the assistance of Mr. Leclair, director of the Dairy School, I tested the value of some lactic ferments.

These tests had no a satisfactory result.

As heretofore, I gave at the different courses of the Dairy School lectures on bacteriology accompanied by demonstrations with the microscope.

## CONGRESS OF CHEMISTRY, PARIS.

The IVth International Congress of Chimestry was solemnly opened on Monday the 23rd. July, 1900, in the great amphitheatre of the Sorbonne, in Paris. Over 1000 members were in attendance.

The session was presided by Mr. Moissan, who read the speech of Mr. Berthelot, the honorary president, confined to his home by illness.

The Organization Commission of the Congress had laid out the following programme:

1. To unify the methods of analyses, which sometime create great difficulties for trade and administrations;
2. To seek to find out the adulterations of food-stuffs and chemical products ;
3. To suggest a few subjects of very limited analytical and industrial research;

4 To consider the conditions of transportation by land or water, customs questions, in a word, all economic questions of an international character, which a congress cannot overlook.

As stated by President Moissan, this embraced all the applications of the chemical sciences, inasmuch as the diffrent manifestations of the chemical industry possess a mutual solidarity and none of these may be neglected.

Among the members present, mere particularly remarked :

For France: Messrs Déhérain, Troost, Riche, Pattier, Le Chatelier, Engel, Hanriot, Muntz, Gauthier, Sabatier ;

For Germany: Messrs LeBlanc, Grueher, Ritter von ('rrucher, Beauvais, Boornstein, Hoffman, Reuter ;

For the United States: Messrs Wiley, Chandler, Clark Doremus ;
Austria: Messrs Ludwig, Liebermann;
Belgium: Messrs Sachs, Kruting, Vauters;
Italy: Messrs Oddo, Paterno ;
Denmark: Mr Peterson;
Greece: Mr Cristomanos ;
Mexico: Mr Stampa;
Rounania: Mr Butureanu ;
Russia: Mr Mendeleef;
Svilzerland: Messrs Lang, Lunge.
The work of the Congress was distributed between ten sections:
Section I. Analytical chemistry;-accurate apparatus;-Unification of analytical methods-Official and commercial analyses of articles subject to taxes and duties - Tables of concordance between the different areometric degrees and the densities.

Section II. Chemical industry of inorganic products; - The acids of industry: $\mathrm{HNO}_{3}, \mathrm{SO}_{4}, \mathrm{H}_{2} . \mathrm{HCl}$, Chlorine, Ammonia, Phosphates, pottery, glass work.

Section III. Metallurgy-Mines-Explosives.
Section IV. Industry of Organic products:-Bread-making-Preserved foods-Fatty matters-Cellulose and papurs-Leathers and hides.

Section V. Sugar-Making-Extraction of the juice of the cane and the beet-Purification of the juices-Electrolysis-Ozonization.-Utilization of molasses.

Section VI. Industries of fermentation: Apparatus for distilling and rectyfying alcohol.-The producing ferments of vinegar-The keeping of pressed and dried yeast.

Section VII. Agricultural chemistry: Production of the regetables used in industry-Study of soils and manures-Cattle Feeding-Dairying.

Section VIII. Hygiene-Medical and Pharmaceutical chemistry:Adulteration of food-stuffs.

Section IX. Photography.
Section X. Electro-chemistry: Electrolytic production of metalsElectric furnaces-Carbide of calcium.

I had asked to be entered in sections I, VII, VIII and X, which held their sittings in the same building-the School of Pharmacy. But I also managed to follow the debates on one or more questions in all the sections.

All these sections sat during five whole days.
In this summary report, I shall confine myself to noting the more interesting questions brought up for discussion in the different sections.

Colin's General Review of the Sciences gave every day to the mem* bers of the Congress, an analysis of the previous day's work. To put my notes in order, I draw largely upon that interesting review.

On the first day, Section I unanimonsly adopted the proposition of Mr. Clarke, supported by Messrs Lunge and Henriot, for the creation of a permanent commission to codify the process of chemical analysis.

The commission chosen by the III Congress of Chemistry held at Vienna in 1898, and composed of Messrs Grucher, Marker, Menozzi, Sidersby and Willey submitted the "Methods of analysis for fertilizers and fodders."

I make a note of the few differences between these methods and those
proposed by the American chemists. Thus the phosphoric acid soluble in citrate of ammonia is determined according to the method of Mr Petermany, of Gembloux. The Thomas Scoriæ, the delicate analysis of which provoked many debates, was the object of special study. For the nitrogen, in this state of nitrate, only the direct methods are admitted.

Mr Krausse proposes to employ in scientific communications:
The symbol N to represent nitrogen
" P " phosphorus,
to reject the Symbols Am and Cy ; to reject the radicals; ammonium ( $\mathrm{SII}_{4}$ ) cyanogen (CN). Also, the organic radicals must be fully written out, Methyl $=\mathrm{CH}_{3}$, Ethyl,$=\mathrm{C}_{2} \mathrm{H}_{5}$, Phen $\mathrm{J}=\mathrm{C}_{6} \mathrm{H}_{5}$.

The section asks that "in the construction of areometers and densi" meters, the specific weight be always taken as the base ; that the tem" perature, for which the instruments are set, be engraved on the body of "the instrument itself."

This proposition should specialy interest our butter and cheesemakers and it would be desirable to see it immedately put in practice in the construction of lacto-densimeters.

Mr. Jean studied the butters in which the Reichert mark is too high or too low. He ascertained that these anomalies are due to a combination of the ration and not to the food itself of the cows. That is to say that a ration may be sufficient, but if the relation of the sugars (carbo-hydrates) to the protein be not obserred, the milk will turn out abnormal butter.

In section II, Mr. Pierron notes the constantly increasing production of the great acids. He observes that the preparation of sulphuric acid calls for the employment of all the sulphurous substances; metallic sulphides, raw sulphur, \&cc. In Belgium, more than half the total outpat comes from the calcination of the sulphides of zinc (blendes) ; our copper pyrites, so abundant in the Eastern 'Townships will probabiy acquire therefore a good commercial value.

Mr. Le Chatelier made a communication on microscopic metallurgy.

He recommended calcined aluminum after thorough washing for polishing. sections of iron and steel.

Section IV received a report from Mr Jean; explaining the best means to combat the hurtfui organisms in the dressing of skins. Mr. Jean also referred to the injury done the leather industry by the ox-fly. He proposed a request to the Minister of Agriculture to prescribe the currying of animals on pasture.

Mr. Frenkel entertained us with Lebioda's process for seasoning lamber. This process turns out in a short time a wood completely free from the soluble elements of the sap, which cause wood to work. Wood thus prepared does not warp or crack in drying. This commanication gave rise to a most interesting discussion.

Veivril, a new product destined to replace India-rubber and guttapercha, was presented by Mr. Reid.

Velvril is obtained from a misture of castor oil and gun cotton. Tubes, water-proof cloths, belts, possess the same qualities as the objects of the same name prepared with India-rubber.

I took the occasion of this question of India-rubber and its substitutes to acquaint sereral numbers of the Congress with the result of my researches relative to the Asclepias Cornuti It was known that this plant contained India-rubber, but the quantity was ignored (See report 1898-99 of the Official Laboratory of the Prorince of Quebee, page 13).

The sugar-making and distillery chemists constituted section $\nabla$.
Belgium and Germany had sent a large number of directors of sugar refineries.

The reports and discussions were rather of a purely industrial character.

The testing of beet-seed, the work of the factories, the refining, the boiling of the juices, the utilization of the molasses for feeding animals dc., were all discussed.

Mr. Wilez gave a rule for the correction of polarimetric readings according to the variations of the temperature and a new method of determining the invert sugar; heating in the boiling bain-marie until the sugary solution marks $85-87^{\circ} \mathrm{C}$., weighing the sugar reduced either to the state of oxydule collected by centrifugation or in the state of black osyde of copper.

Section VI heard several reports relative to the natural and artificial ferments used either in the direct making of alcohol or in the preparing of wines. It seemed to be admitted that it is possible to entirely eliminate or at least to farorably and very appreciably modify the influence of the soil on grape musts. The process recommended is to sterilize the musts at $110^{\circ} \mathrm{C}$ during 10 minutes and after cooling to pat in the chosen ferments. The taste of the alcohol of Cognac has been obtained by fermenting beet-sugar with a ferment derived from a Charentes must.

Mr. Krutwig does not concede the necessity of the salts of lime in the water intended to soak the barley for the purpose of malting. Experiments made with distilled lime, selenitic and other waters have proved that the quantity of phosphates dissolved is always the same in these different waters.

The following suggestion made in Section VI was resersed for the, general meeting: "That in all the countries represented at the Congress by their delegates, alcohol intended for the manufacture of chemical and pharmaceutical products be relieved from all customs and octroi duties."

Mr. Déhérain, president of Section VII, established that aeration is not the sole object of the working of soils, but also and abore all the supply of water. A compact soil, in which there is still $20 \%$ of the rolume of air, only retains a few hundred parts of water as compared with the same soil worked up.

The composition and hence the value of superphosphates was the subject of an interesting discussion in which Messrs. Déhérain, Menozzi, Paterno, and Liberman took 5 part. Mr. Menozzi believed that it would be better to estimate the superphosphates by the quantitative aualysis of the phosphoric acid soluble in water. The result would be more care in the manufacture and the quantitative analysis wouldjbe more speedy and harmonious.

Mr. Déhérain related the history of the question of the fisative bacteria
of nitrogen. He indicated the result of the experiments at the school of Grignon and elsewhere and drew the following conclusions:" there is no reason to extend the agricultural employment of cultures of these bacteria, the effects obtained being in general insignificant or null."

Mr. Lézé, considering that in cream, supposed to be formed of equal globules of butter, each globule is surrounded by 12 other globales tangent to it, estimated that cream of maximum concentration should contain $75 \%$ of butter and $25 \%$ of milk.

Mr. Kühu stated that he secured the sterilization of milk on a large scale by the ccmbined action of pressure and heat.

Milk, sterilized at $110^{\circ} \mathrm{C}$, is cooled in the apparatus itself by means of a current of cold water and bottled aseptically with the aid of a special apparatus for the purpose.

Mr. Paterno, read a fine work on the sugar-producing vegetables: the maple for cold climates, the beet-root for the zone adjoining the 45th. parallel, the sugar cane for the tropics, and the sorgham which seems intended to fill up the gap between the 45 th. parallel and the tropics.

The composition of sugar beets is extremely variable; it oscillates owing to different influences which are still undetermined.

In section VIII, Mr. Berger stated that the sterilization of water by means of the peroxyde of chlorine is perfect. This opinion was confirmed by several other members.

Mr. de Brevans submitted a work on the search for saccharine in foodstuffs.

Mr. Riche, directory of the Laboratoire des expertises announced that the Ministry of Trade and Industry was preparing a circular prohibiting the use of saccharine. This substance is already prohibited in Italy, Belgium and Roumania.

Mr. Halphen had studied the different processes employed in the analysis of oils, and discussed the reactions thus far proposed to charac-
terize cotton seed oil and sesame oil. He recommended the changes introduced by Mr. Millau which operate not on the wils themselves, but on their rolatile acids.

Mr. Christomanos ascertained that during the freezing of water, there is elimination of organic impurities and microbes. Cloudy ice is always suspicious and should be rejected from alimentary use.

This observation by Mr. Christomanos confirms the conclusions of my report of 1899-1900 on the purity of natural ice.

Following upon a communication from Mr. Butureanu on the presence of the higher alcohols in fermented drinks, Mr. Riche proposed the appointment of an international commission to study the processes of analysing alcohols and the interpretation of the results.

A very important communication was made to Section IX by. Mr. Minovici on forgeries in writings and on photography in colors with a pose of 1.15 of a second.

This Section was unanimou's in the 'expression of its admiration for the remarkable works of Messrs' Janssen;'Marly, Lumière and Lippman.

Section X. Electro-chemistry, was the section whose sittings were the most interesting. At the opening, the president, Mr. Moissan, expressed all his reservations'from'the standpoint of the Wilson patent regarding the preparation of carbide of calcium. "Mr. 'Wilson' recalled that on the'12th. December, 1892, he announced the formation of the carbide by the electrtic arc and that the, Wilson, patent was only known in February, 1893,

Mr. Matthews reviewed the carbide industry in America. He men. tioned the great works at Niagara, Sault Ste Marie and St. Catherine's and stated that the cost price of carbide varied with each establishmentl

Mr . Besuard divided into five classes the different acetylene apparatus shbwn by 95 'exidibitors in the Vinternes wing . portable aparatus; apparatus providing for the fall of water in the carbide : : apparaths/lettitug granulated or crushed carbide drop into water, and lastly apparatus for
using acetylene compressed or dissolved without pressure in acetone. These latter apparatus should-it seems-solve the problem of lighting railway cars. They contain 100 times their volume of acetylene. At equal weights, they give 20 times more light than electric storage batteries. They are absolutely without danger-a result quite recently attained.

Among the more recent discoveries in the range of chemistry may be mentioned the use of the powder of aluminum to obtain temperatures almost as high as the electric furnace.

Relying on the great affinity between aluminum and oxygen, Dr Goldschmidt, of Essen in Germany, works with the utmost ease and in a state of hitherto unknown purity the most refactory metals : chromium, titanium, vanadium or their alloys with iron. And what is more astonishing, the operation is performed quite simply in a crucible-which a workman may hold in his hand -by the combustion of a few ounces of powdered aluminum and different oxydes.

This process is applicable to the fusing and welding of ordinary metals : iron, steel, nickel. It is already used for welding the rails of tramways. This work, which called for a very cumbrous plant and a force of several horse-power, is now executed much more rapidly by a couple of men, who carry in their hands all that is needed for sereral weldings.

The Society of Electro-Chemistry had installed Dr Goldschmidt's aluminothermic crucibles in the neighborhood of the electric furnaces on the Champ de Mars.

The members of the Congress of Chemistry had the pleasure of attending two exceedingly interesting lectures given outside the hours of their regular sittings.

The first was by Mr. Gauthier on the combustible gases of the atmosphere, given in the chemical hall of the faculty of medicine.

The second was by Mr Moissan in the school of pharmacy on fluorine and electric furnaces.

I admired samples of liquefied flaorine, perfectly transparent, preserved in sealed glass tubes.

The liquefaction of this subtle and refractory gas seems to be easily effected at a temperature of $-180^{\circ} \mathrm{C}$., obtained by means of liquid air.

Before closing its labors, the Congress was invited to piace on record recommendations for the establishment of schools of chemistry in all countries. Such schools already exist in Germany and at Nancy in France.

Here, in Canada, the teaching of industrial and analytical chemistry is scattered over a number of laboratories. We have no special laboratories.

The Pasteur Institute in Paris has recently opened a laboratory for chemical and bacteriological analyses, the organization of which seems to be perfect. Students are admitted from all countries. The criticism of methods of analysis and the degree of confidence deserved by each are taught.

Here are some of the studies included in the programme: bacteriological technique ; study of water, beer, milk, butter, oils, canned goods, \&c., \&c

The detailed programme and the terms of admission to the laboratory can be procured by addressing the Director of the Pasteur Institute, Paris.

If an establishment for the study and practical work of chemistry, could be organized somewhere in Canada it is unquestionable that many young men would be only too happy to patronize it and to win an honorable and lucrative position for themselves in a career that is far from overcrowded.

C. P. CHOQUETTE.

## REPORT OF THE AGRICULTURAL MERIT COMPETITION FOR THE YEAR 1901.

To the Honorable F. G. M Dechène, Minister of Agriculture, Quebec.

Sir,
The undersigned have the honor to submit their report on the agricultural merit competition for the year 1901 in the region comprising the 22 southern counties of the province, with the request that you will be pleased to receive it favorably in keeping with the importance of the: subject.

Very respectfully submitted.
ARSĖNE DENIS, THOMAS DRYSDALE, JOSEPH DELAND.

COMPETITION OF AGRICULTURAL MERIT 1901

COMPETITORS FOR THE GOLD MEDAL

| Laureate | No. | NAME | RES(DENCE | $\begin{gathered} \text { DATE } \\ \text { OF } \\ \text { THE VISIT } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gold medal. | 1 | John Muir...... .......... | Hinchinkbrooke, Huntingdon........... | July, 5... | 95.85 |
|  | 2 | Antoine Phaneuf.. ........ | St-Antoine, Verchères ....................... | Aug., 15... | 94.65 |
|  |  | Erastus P. Ball ....... .... | Rock Island, Stanstead................... | if 1.... | 94.60 |
|  |  | L. W. I avidson........... | Bethel, Kly Xoth, Shefford............... | Sept., 2.... | 93.80 |
|  |  | Lt.-Col. A. If. Gilmour... | Stanbridge-East, Missisquoi............. | July, 26... | 91.45 |
|  | 6 | John V. Corliss............. | Barnston, Missisquoi......... ............. | Aug.. 3 ..... | 85.25 |

# COMPETITION OF AGIRICUI 

 DETAIL OF POINTS




ARSENE DENIS,
$\left.\begin{array}{l}\text { AROMAS DRYSDDALE } \\ \text { TOSEPH DELAND. }\end{array}\right\} \begin{aligned} & \text { Judges. }\end{aligned}$

F AGRICULTURAL MERIT, 19O1<br>TAIL OF POINTS AWARDED



## COMPETITION OF AGRICULTURAL MERIT 1901

COMPETITORS FUR THE SILVER MEDAL


The region which we were called upon to visit this year is beyond question the most important and the most interesting from every point of view. It is the finest, as well as the richest, agricultural section of the of the province, seeing that it comprises that incomparable triangular plain, the fertility of which is only equalled by the rich prairies of the West and which extends from the St. Lawrence to the mountains in the South and West - a region embracing the most remarkable area of land in point of agricultural wealth, natural beauty and landscape charm. It is also the region which presents the greatest variety of soils and crops : cool sandy soils, sandy-clayey-calcareous soils, warm and dry silicious soils, beautifully lerel lands of alluvial clay, heary lands dotted with calcareous swells, lands free from stones and extremely rocky lands, grain and hay lands, regetable and fruit lands, pasture lands; mixed crops with natural or permanent pastures outside of the rotation, crops on the semi-pastural system or on a fodder-basis, with the feeding of dairy or beef cattle according to circumstances; consumption of the fodders and grains on the farm and sale of the animal products as basis of the system ; extensive farming with the raising of hay for the market as its basis; cultivation of orchards, small fruits, embellishment of the property and development of local natural adrantages.

We shall have to note, in the case of each county visited, the particulars of the soils, crops and other circumstances, at least as far as the actual competitors are concerned.

The twenty-two counties forming this immense and magnificent section of our province were not all represented in the competition. For instance, the counties of Napierville, Laprairie, Brome, Sherbrooke, Richmond and Drummond had not a single competitor and several orher counties were not sufficiently represented. The counties, which were best, as well as most largely, represented were : Chateauguay, Huntingdon, Missisquoi, Stanstead, Shefford, Yamaska and Verchères.

We visited 64 farms, 6 of which were competing for the gold medal and 58 for the silver medal. The 64 competitors westributed between. the counties as follows:

3 in Huntingdon, the laureate of the gold medal and two silver medals; 2 in Beauharnois, 2 bronze medals; 11 in Chateauguay, 9 silver and 2 bronze medals; 2 in St. John's, 2 silver medals; 3 in Iberville, 1 silver and 2 bronze medals; 8 in Stanstead, 2 competitors for the gold medal, 1 silver and 4 bronze medals and 1 diploma; 1 in Compton, 1 silver medal ; 6 in Sheftord. 1 competitor for the gold medal, 1 silver and 4 bronze medals ; 3 in Rouville, 2 silver and 1 bronze medals; 1 in Chambly, 1 silver medal; 3 in Bagot, 3 silver medals; 2 in St. Hyacinthe, 1 silver and 1 bronze medal; 6 in Verchères, 1 competitor for the gold medal, 3 silver and 2 bronze medals; 6 in Yamaska, 1 silver and 5 bronze medals.

It should be noted that this competition seems to take no account of sereral rich and prosperous counties, where the progress of agriculture, calls for public mention, and at the same time gives insufficient prominence to the derelopment and the agricultural success of certain other counties, where the competitors do not-to say the least-appear to represent all the agricultural possibilities of their regron. As regards these counties, the object of the present competition has not been perfectly realized, namely, to direct attention as models to the best cultirated tarms and to reward the true merit of courageoas, industrious and enlightened men, who have improved and beautified their farms and who, by intelligent and rational tillage of the soil, have extricated themselves from the old routine ruts and hare made for themselves a happy and prosperous living, besides assuring the future of their families and their attachment to the soil.

We would respectfully remark that the obligation in which the Agricultural Merit competitors are placed of going through the formality of like competitions by the Agricultural Societies tends to keep off a large number of important, if not the best, competitors.

The kindness of the Honorable Minister of Agriculture in placing an artist at the disposal of the Commission has enabled us to illustrate the present report with a number of pictures, which will give it more interest and practical utility. However, as the season was adrauced and already becoming bad, when the artist, accompanied by the secretary of the Commission, began his work, it was impossible for him to visit all
the competitors or to take good views on all the farms that he could Tisit; so that if there be some of the competitors, who appear to be orerlooked in the matter of the illustrations which concern them, they should not for that reason consider their merit lessened or ignored. These illustrations are more to instruct and interest the public than to gratify the ranity of competitors, to puff up their individual merit or to advertise them. In the same sense the competitors whom the pictures concern cannot regard themselves as superior to those whom we have not been able to faror in the same way. The large tabular statement of the competition attests and gires with the points in detail the real degree of merit.

Among the 64 competitors reported, we have had the satisfaction of meeting four raliant settlers, the owners of fine farms, which they had hewn out of the rirgin forest and completely improved. Among them is the venerable laureate of the gold medal. In order to bring these more particularly to the notice of their fellow citizens and to hold them up as examples to all young settlers, we have deemed it useful to reproduce the portraits of some of them at the head of their special reports (1).

We propose to proceed in this report by order of counties from south to north and generally by order of visit in the county and not by order of merit. The tables at the head of this report are by order of points or of merit.

## COUNTY OF HUNTINGDON

This county comprises two rery distinct regions in point of soil and agricultural resources. The southerly zone, skirting the Amsrican boundary line, is high, sandy and very rocky in places. This region is better adapted to the growth of grasses, potatoes, Indian corn and fruits and to the production of maple sugar and good quality timber for carriage ${ }^{-}$ making. The northern part, which comprises the valley of the Chateau ${ }^{-}$ guay river, nearly the whole of the townships of Hinchinbrooke and the township of Godmanchester, is of clay formation and dotted with small
(1). Note. - Messrs Dumoulin and Murphy did not transmit their photographs in time for insertion over their respective reports.
limestone hills covered with maples and other hard wood trees and sur. rounded by fine level lands, which give to the country a smiling and diversified aspect that delights the eye and bespeaks its richness.

The abundance of the national tree, the orchards, the numerous and handsome herds of cattle, the many coquettish and comfortable buildings embellished by fine trees, which give from a distance to some farms the appearance of charming little villages, and the extensive derelopment and prosperity of the dairy industry, proclaim that we are in an adranced country, whose industrious inhabitants understand how to turn to profitable account the natural wealth of this fine part of the county. The same may be said of the portion of the connty of Chateauguay, which extends from the eastern boundary of the county of Huntingdon to Howick, in the valley of the Chateauguay river, where reside the competitors to whom reference will be made further on.

The three competitors of the county of Huntingdon reside in the best region of that county, on the Chateauguay river. They are Messrs John Muir and Archibald Muir, in Hinchinbrooke, a few miles to the north east of Huntingdon and McNaughton Brothers, of DeWitrille. All three are descendants of distinguished farmers and worthy representatires of the good farming of the county.

The town of Huntingdon, inhabited by an industrious population almost exclusively English-speaking, is a flourishing little town agreeably built on the Chateauguay river, which presents at that point several good water powers. It is the chief market for the products of our three competitors.

Mr. JOHN MUIR (95.85 pts.) Laureate of the gold medal, V.G. E M.
It is a pleasure to us, to begin this report with a few words about the history and success of a good old settler of the first half of the last century, who had to cut down the forest in order to erect the solid and comfortable house in which he dwells at present and who, during the whole course of his long life, has worked with rigor, courage, intelli-
gence and success to create for himself a beautiful little property and to assure the welfare of his family, as well as rest for his declining years. It is for his labors and his success as a whole that in this competition we have not hesitated to award to him the palm of victory over the other competitors, with the title of Very Great Exceptional Merit, which wins for him the honor and pleasure of wearing the gold medal as the reward of his genuine merit and agricultural talents.

Mr. John Muir, whose portrait ornaments the frontispiece of this report, is a big, stalwart veteran of 86 years, with an erect and strongly built frame, who still takes part in the farm work. He is one of those hardy sons of old Scotia, from which at the age of 12 years he emigrated with his father in 1827, to grow up and prosper on the banks, still wild at that period, but full of promise, of the winding Châteauguay, on the spot where the author of his days breathed his last and where his own long and laborious career as a pioneer settler has been spent. He married in 1844 and his father gave him the lot adjoining his own, which he has cleared and built upon, improved in every way and transformed into an excellent, handsome, clean, coquettish and productive farm. When he took possession of his lot (Nos. 9-10 of the 4th range of Hinchinbrooke) there were only a few acres cleared near the present road. He made a careful inspection of it by traversing it in all directions, selected as the site for his house a small hillock composed of fine limestone, fixed the site also of his farm buildings, and staked out the position of the arenue and the division fences between each field, the whole according to a well conceired plan of rotation, which he had matured in his own mind. He then applied the axe to the bush, commencing at the spot occupied by the house, which he at once built in 1851, with stone extracted on the ground and lime made from the same stone burnt with the wood cut from the same place: a fine example of the economic utilization of building materials which are too often in the settler's way.

From the start, Mr. Muir proved himself to be a model settler and farmer, doing nothing without a preconceived and well digested plan and thus losing no valuable time in wrong directions.

Later on he added to his dwelling house the fine dependencies now connected with it (see fig 3 and 5) and then began the first field, which he divided off from the rest by a good permanent fence, and so on in the
case of his other works of cultivation and improvement : buildings, ditches, trenches, drainage, roads, stoning, \&c. Each work finished according to his plan had never to be begun over again. A stone once removed from a field was put in a suitable place and had never to be handled again, When later on Mr. Muir set about planting orchards around his dwelling. he gave to his farm the name of "Apple Hill Farm."

When he was clearing his land, Mr. Muir had to contend uot only with the giant trees of the forest, but also with the wild beasts, especially wolves which were then numerous and which devoured in one day twelve of his sheep. The fierce brutes were so huugry that one of them, more voracious than the others, was actually killed on the body of its victim by blows from a stick

Mr. Muir's farm has a total superficies of only 90 acres (v. figure 2) 70 of which are in ploughed fields, 2 in roads and permanent pasture, 15 in standing timber (sugary), 1 in buildings and yards and 2 in orchards,

Mr. Muir did not take long years to improve these 75 acres of land, which are to day in a perfect state of tillage and improvement, well stoned, well drained and well cultivated, but it is also said that he was no child at the work of land clearing. Some of his fellow countrymen and neighbors, slightly jealous or malicious, perhaps, say that " he worked like a team of oxen ". Certainly, he must have worked hard and well and the work does not seem to have shortened his days, which are flowing on joyously in peace and ease amid the respect of his children, while still holding command over his property like a king over his kingdom, and while nearly all of his compeers of the same generation have passed into the grave.

Mr Muir has been admirably seconded in his labors by his deroted son, Mr Archibald Muir, Sr, who is also the overseer of the farm and the present executor of the principal works of cultivation and improvement.

## SOME DETAILS OF THE FARM

The soil of the farm is clay and sandy clay of good quality. The few small hills on it are alluvial accamulations of limestones, so that the land at the foot of these hills is necessarily of good composition and great fertility. But there was also a good deal of stoues on the surface of the other parts of the farm. Mr Muir claims to have removed about 6000 loads of stones, which he atilized in the erection of his house as already stated, for the foundations and basements of his other buildings, for culverts, drains, embankments of his arenue, footpaths in his yards, filling up holes \&c.; \&c.

All the drainage works have been well executed; 15 acres of tile and stone drains carry off the water from the foot of the hills and other spots where there are springs. The Chateauguay river directly receives the water of the lower or north part of the farm and a discharge, 5 feet in width, (V. fig. 2) receives the waters of the southern part above the building. The hillocks and undulations of the soil and the earth thrown out of the ditches have been levelled off and the earth conveyed to the low grounds so as to give a lerel surface to the fields and to allow of the making of straight, regular furrows at right angles to the draining or line ditches. The tillage work is also well done. The depth of the plough$i_{n g}$ varies from 5 to 8 inches according to the crops: the third ploughing of the rotation is made as deeply as possible wherever the subsoil is of good quality.

Selection of Seeds -Like all good farmers who do everything with proper calculation, Mr. Muir selects his seeds in the fields themselves at harrest time by leaving the better parts to ripen more perfectly, patting them and threshing them apart in the baru and, after winnowing and cleaning them, preserving them properly in the loft until wanted for another season.

Manure.-Mr. Muir employs enough of litter to absorb the liquid manure of his stables and piles the manure in a heap in his yard to be afterwards carted to the field where it is to be used. He keeps it there in a large heap well trampled down till the end of the summer when it is spread out and buried by a light ploughing. The part, which is not set apart for a hoed crop, is ploughed again thoroughly at the end of autumn to be ready for sowing in the early spring. Mr. Muir occasionally manures
some of the pastures, in summer, when his stable manure is sufficiently rotted and free from bad seeds.

For hoed crops, he manures the land and plourrhs it in the fall, carefully working the soil, when dry, to lessen the growth of weeds and to mellow the ground more perfectly. He coustantly keeps the soil clean and mellow by frequently using the cultivator and the horse hoe until the quickened growth of the plants is such that those implements cannot be run between the rows without damaging the crop.

Orchards and Garden.-Mr. Muir applies about a cart load of stable manure every year to each of four big apple trees and burns all the branches derived from the pruning of the trees.

Rotation-The following is the rotation which Mr. Muir claims to follow and which, as a matter of fact, appears to be really followed:

1st year: On fallow ploughed in the fall, oats or a mixture of oats. barley and peas in the proportion of 5 of oats, 2 of barley and $\frac{1}{2}$ of peas, This mixture, says Mr. Muir, assures a better crop and better food for the cattle.

2nd year: Hoed crops mauured the previous year on part of the field, manure buried by a light ploughing, and oats and barley on the other part manured as in the other case, but receiving a second deep ploughing at the end of autumn.

3rd year: Cereals, wheat after hoed crops, with a seeding of timothy and clover.

4th and 5th years: Meadow.
6th year: Pasture. Sometimes, a cutting of the green hay is taken off before letting the animals in.

7th and 8th years: Pasture.
All the fodders are consumed on the farm. This system seemed good to us. The division of the land comprises eight fields (v. fig. Q) but the field $a$ (below the hill) together with a 12 acre piece of leased land may
be regarded as out of the rotation and utilizable especially as pastures. Then field $e$ is divided at need into two by a temporary and portable fence like the one between the fields $f$ and $g$ and thus the main body of the farm comprises eight divisions or soles differing little in dimensions and being in keeping with the rotation aforesaid.

The fences, which are in good order and well kept, are, however, not all first class and most of the gates are on hinges, painted, and opening on rollers.

In general, the crops were clean, although the Commission noted some weeds along the fences or ditches.

Buildings.-The dwelling house, already mentioned, although inferior to others in some respects, is considered first class for a farmer. It is supplied with modern improvements and a summer kitchen with woodshed attached, besides being well furnished and well kept. There is a stone cistern in the cellars, which are entered both from outside and from the kitchen. In the latter, there is a Fairbanks scale, two handy flourbins, three cheese presses, utensils of great utility to a competitor (For dimensions and location, see fig. 3 and reference).

All the buildings are well covered with good shingles and kept in perfect order, as are also the implements. There is a place for every thing and every thing in its place (see the illustrations and references.

Book-Keeping.-Mr Muir keeps a record of his work. All his farming operations are entered, using for the purpose a blank of the Robert Sellar Almanac. The details of the cash receipts and expenses are entered in a blotter, and are carried monthly to the ledger.

He also keeps a record of the services and births, \&c., a book of current accounts, the accounts of his employees, \&c.

The following is a statement of his accounts of last year :

## RECEIPTS

## Proceeds of sales, dates omitted

4 calves ..... \$ 2950
3 milch cows $\$ 40,50,55$ ..... 14500
2 beef cows $\$ 40,41$ ..... 8100
5 lambs for breeding purposes ..... 2600
Pigs ..... 7800
Wool ..... 1300
Eggs ..... 1500
10 gallons maple syrup ..... 850
Apples ..... 3000
Bull, (service) potatoes, turnips \&c ..... 8000
3 sheep for slaughter ..... 2000
665 ibs butter ..... 12464
Return from $46,543 \mathrm{lbs}$. of milk the product of 12 cows,from the cheese factory ..... 37700
Total ..... \$1027 14
EXPENSES
Labor ..... $\$ 12000$
Blacksmith's bill ..... 1200
Purchase of a ram ..... 1000
Service of a boar ..... 200
Clover and carrot seed ..... 800
Seed Indian Corn ..... 400
10 bags salt ..... 500
Munioipal taxes ..... 1800
Threshing grain ..... 1600
Linseed oil and nails ..... 800
Repairing harness ..... 200


## MINERAL FERTILIZERS

Mr. Muir used 100 lbs of Thomas' pulverized phosphatic scorice on a strip of Indian corn, which last year had produced a crop of cereals. This year the clover covering the ground will yield over 300 bundles to the acre.

Mr. Muir collects and carefully keeps his wood ashes in a small stone building to use them on his vegetables. He also makes lime which he spreads on his land along the river bank. In addition, he makes composts with the refuse of the farm, one pile of which noted by us was $6^{\prime} \times 10^{\prime}$.

## STOCK

Twelve cows, three yearling heifers, five calves, all of the Ayrshire breed, pure and grade, and of good quality.

Ten good pigs, 4 of them No. 1 Chester Whites, 1 Berkshire and 5 grades. The Berkshires are preferred by Mr. Muir; a hog of the latter breed weighed 585 mbs at one year and a few months

Sheep.-Fifteen good thoroughbred Leicesters.
Horses.-Two good Clydes, just enough for the requirements of the farm.

All the animals are well kept and in good condition:
Hog keeping and feeding.-The piggery of $30 \times 16$ is comfortable and handy enough. The pigs have access in summer to a yard and a part of
the orchard, where they find shade and coolness, tender grass and fallen apples which they devour to the advantage of the proprietor.

The feed to the age of two months consists of skimmed milk and meal, then, of whey and ground feed composed of a mixture of peas. oats and barley, and in the fall, for fattening, of Swedish turnips and small potatoes, boiled, mashed and mixed with ground grain.

Diet of the Cows.-As soon as they are stabled in the fall, clover hay and fodder corn twice a day, with about four lbs of ground grain while they yield milk. In January, the cows, which are to calve in the spring, are allowed to run dry and they are given every day as their last feed straw with a bucketful of turnips during two months and a half and three weeks before calving ground peas, oats and barley are added.

Diet of the Sheep.-Two feeds of clover and one of maslin per day or, in lieu of the latter fodder, a little carrots and turnips with a pint of oats per head.

The state of the crops was good and, as we have nothing specially remarkable to note in the connection, we refer to the table of points for the details. We should mention, however, to the eulogium of the competitor, a piece of remarkably fine wheat (1)

Let us further add: The orchard contains about 150 large apple trees, several of which are of wild stock. The foot of the trees is coated with a ring of sulphur for several inches in height to drive away or poison the insects which attempt to ascend the trunks.

The fruit garden contains six handsome Concord grape vines with a good exposure and some fifty currant and gooseberry bushes. In the fall, the vines are laid down on the soil and covered with straw and boards.

As the figures and the references subjoined are sufficiently selfexplanatory, we shall say nothing further to confirm the merit of the
(1) According to a report published by the Gleaner of Huntinglon, this piece of wheat yielded 32 bushels to the acre.
venerable laureate to whom we cordially wish a long and happy enjoyment of the fruits of his good works and of the respectful esteem of his family and friends.

## FIGURES AND REFERENCES

Fig. 1. (Plate 1).
Portrait of Mr John Minir, Laureate of the Gold Medal, aged 86 years, seated before his house "Apple Hill Farm," lots Nos 9 and 10, fourth range of Hinchinbrooke, County of Huntingdon.

## Fig. 2.

General plan of "Apple Hill Farm," Mr John Muir's property :
(a) Pasture, 8 acres;
(b) Pasture, 8 acıes, enclosing a small rocky hill covered with trees and a stone drain of two acres in length ;
(c) 10 acres;

1 Barley, 4 acres;
2 Wheat, 3 acres;
3 Meadow, 3 acres;
(d) Meadow, 2 acres;
(e) Meadow, 14 acres;
(f) Pasture, $4 \frac{1}{2}$ acres;
$(g) 5 \frac{1}{2}$ acres.-Buckwheat: $\frac{1}{2}$ acre. Fodder Indian corn: $2 \frac{1}{2}$ acres; Potatoes: $\frac{3}{4}$ acre; Roots and different vegetablcs, turnips, beans \&e., $\frac{1}{2}$ acre; Oats: 1t acre.
(h) Pasture, 6 acres.
(i) Mixture of grains, 6 acres.
(k) Maple grove, 14 acres; 400 spouts, 1 sugar house and an evaporator, on \& limestone hill overlooking the rest of the farm and containing a good many hickory and butter-nut trees.

Shade trees, partly oaks.


Mr. JOHN MUUR
Winner of gold medal.
?
(l) Embankment of dry stone, with drainage to reduce the steep slope of the hill on the road;
( mm ) Culverts of cut stone, over the drains of the avenue near the gates. These everlasting culverts number twelve on the farm and are made of large stones solidly and durably laid;
( $n$ ) Main discharging drain.
(oo) Orchards, lawn, yard, buildings.
( $p$ ) Avenue 25 feet wide running from one extremity to the other of the land, well levelled and rounded off, with a good drain on each side.
( $q q$ ) Public roads.
(rr) Drains intercepting the water fro:n the hill and conducting it into open lateral ditches and into a collecting drain under the embankment of the avenue.

There are about 800 yards of drains on the farm. Fig. 3.
Plan of the surroundings of the farm buildings, showing their relative positions, the avenue, orchards, gardens, lawn, yards, etc. ; the points (.) indicate the forest and ornamental trees, and the shaded parts the paved footpaths, laid with large limestone flags, from the dwelling house to the buildings and all around in front of the latter ; no wooden shoes (sabots) are ever needed to go to the barn.
(a) Dwelling house, main block ;
(b) Kitchen, wash house and wood shed ;
(c) Carriage, implement and grain sheds; workshop and store ;
(d) Water-closets covered with ivy for coolness ;
(e) Ash house to hold the stove and other ashes ;

(f) Piggery :
(g) Road from the house yard to the farm yard;


Fig. 3 (For explanations see page 227)
(h) Flag-stone culverts along the sides of the avenue;
(i) Small building containing a suction pump and used to put the milk cans under shelter, and with a trough alongside to water the animals;


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$1 \because!$


John Mutr's Farm.-"Apple. Hili Fara "
(j) Barn, loft, and shed;
(k) Horse stable, cow stable, threshing floors, and sheepfold;
(l) Barn with two threshing floors and a stable for the calves in the middle;
(m) Small sheep yard.

Fig. 4 (Plate 1).
Miss Maggie Muir, working the antirue spinning whet, which was not diwhained even by Scotland's queens in the days of old, and spinning the wosl from the fine Leicester sheep on her father's farm to convert it into carpets, quilts, stufls and good mittens which carry


ECHELLE DE 50 POS AU PCE
Fig. 7. (For explanations see page 230)
off the first prizes at the exhibitions and proclaim her skill. She holds 8 first prizes for carpets and as many more for mittens.

Quæsivit lanam et linumb et operata est concilio manuum suarum.
"She seeketh wool and flax and worketh willingly with her hands."
(Prov. XXXI-13).
Fig. 5 (Plate 1).
View of the orchards, ornamental trees around the dwelling-house an.l dependencies, barns and stables and a group of Ayrshire calves taken from a height on the east side.

Fig. 6 (Plate 1).
View of the farm-buildings, and the yard, taken from the south eastern face, showing: on the right, to the north, a corner of the orchard and flower garden.

Fig. 7.
Ground plan of the farm buildings :
A Lateral barn to the west.
(aa) Fodders;
(bb) Threshing floors;
(c) Calves' stable ;

B (k fig. 3) Stock stables;
(a) Sheep-fold;
(b) Threshing floor;
(c) Cow stable ;
(d) Horse stable;

C Lateral barn to the east ( $\mathrm{j} . \mathrm{fig} .3$ ) ;
(a) Fodder ;
(b) Mow;
(c) Shed and loft ;

D Pump building used to cold and shelter the milk;
E Yard surrounded and supplied with footpaths paved with flag stones indicated by shading.

Mr. ARCHIBALD MUIR, Jr. (87.93 pts, silver medal).
Mr. Archibald Muir, Jr., is the nephew and neighbor of Mr. John Muir to the west, which is tantamount to saying that he comes from good stock. He is educated and knows how to farm well and further to compete in other fields as well as in those which he turns up with his plough. 40 ?
He farms 200 acres of land, of which 152 are of good \#arable soil, , 21 in natural pasture, 26 in bush and 1 in orchard, etc.

The details of his farming presents nothing superior to that of other competitors to warrant special noting. Mr. Muir follows a mired system of fodder and stock raising. He keeps good herds of Durham-Ayrshire cows, Leicester sheep and Yorkshire pigs.

Number of animals.-Five working horses and several colts of good quality.

Nineteen milk cows, six heifers, six young oxen, six calves, one bull seven or eight Leicester ewes and ewe lambs, twelve Yorkshire pigs.

Mr. Muir's stock of cows is not thoroughbred ; he attaches more importance to the value of the family and the lineage than to the purity of the breed. He raises only heifers dropped by good cows, whose mothers themselves were good and begotten by bulls from good milkers and having Durham blood especially, in order that his cows may have greater size and yield larger prices when he is obliged to get rid of them by selling them either to the milkmen or to the butchers. Several other competitors, in Châteauguay and elsewere are of the same mind as he is. The Commission cannot deny the principle enunciated by Mr. Muir, bat is it not still more certain in the case of the pure breeds than the grades?

The competitor's sales for last year according to the figures mentioned in his application, amounted to the sum of $\$ 1,448.51$.

His milk delivered at the factory brought him in $\$ 55351$ and the product of his other sales was $\$ 895.00$, making in all $\$ 1,448.51$.

The rotation would appear to be the following :
1st year: Oats or peas or hoed crops at need on a part of the division.
2nd year: Wheat, barley or oàts.
3rd and 4th years: Meadows.
5th, 6th and 7th years: Pastures.
The stable manure is applied as a dressing to the first year's pasture
and to the hoed crops. The sugary contains 600 trees and is supplied with an improved evaporator.

Mr Muir has made a few hundred yards of drainage and maintains that the draining of the soil is "the fundamental principle of good farming." He therefore does not drain his land without a rational object.

The amiable members of his household always excepted, the greatest object of interest for the visitor to Mr Muir's is his splendid barn in the modern style, to the construction of which in all its details he himself attended both as architect and practical workman. The subjoined figures and references show the details with sufficient clearness to obviate the necessity of any written description. It may, however, be said that it is a model barn and Mr Muir deserves to be congratulated on his magnificent building. He proposes to erect new horse stables and other buildings within the next few years.

Mr. Archibald Muir's dwelling house very much resembles his uncle's; they are two sister buildings, just as the two builders were brothers.

Mr. Muir appreciates his position as a farmer and the value of his land and district. He recognizes his great debt to his grand-father in coming to settle in this part of the Canadian forest for the welfare and happiness of his descendants. Mr. Muir had no difficulty in winning the number of points, which constitute such a striking proof of his merit.

FIGURES AND REFERENCES

Fig. 8. (Plate 2)
Front of the barn and stable of Mr Archibald Muir, showing ;the entrances, the gangway in stone and earth, with the large doors, as well as those of the cow-stables in the middle and the doors at each end of the stables below.

Fig. 9 (Plate 2)
View of the interior of the cow-stables, showing the double stalls, the feeding wickets


Fig. S. A. Muir's farm. Barn and stable.


Fig. 9. A. Murir's farm. - Interior of stable.


Fig. If. MeNalughton's farm. - Barns and stables.
opening from the threshing floor and an open trap to let the manure drop into the cellar beneath. (V. 6 fig. 12).


Fig. 10.
Ground plan of the above mentioned barn and stable, showing also the dimensions.
(aa) Grains and fodders ;
(bb) Threshing floor;
(c) Stable ;
(d) Gangway ;
(e) Outside stairway ;

Fig. 11.
Section of a stall in the above stable, showing.
(a) The feeding wicket opening above the manger and into the threshing floors and kept open in a sloping position by a small chain when distributing the fodder or at any other time during the summer for airing purposes ;
(b) The iron hasp ;
( $c$ and $d$ ) The drain from the manure trap.
Fig. 12.
Basement of the above combined barn and stable, separated into three divisions by good stone walls.
(aa) Stables for loose fattening or other animals ;
(b) Manure cellar ;
( $p p$ ) Gates ;
( $t t$ ) Fodder traps ;
(rr) Rack beneath the traps.
Fig. 13.
Plan of closing the large barn door.
(a) Left side of the door closed, provided with a fixed cross bar bolted (b) the


Fig. 11. (For explanations see page 233)
end of which (c) when the door is closed, springs up on the bevel of the latch (d) fixed to the barn post ;
(e) Right side ajar ;
( $f$ ) Handle and moveable iron hook clasping the bar and keeping the door shut,
(g) Detail of the annular handle hook of the door (e);
(h) End of the bar (b) of the door (a);
(i) Block of wood beveled with a notch to receive the bar of the door and to hold it in position;
(j) Barn post.

## Messrs McNaUGHTON Brothers' (8f 42 pts., silver medal.)

The few figures whioh we publish in regard to the farm of Messrs McNaughton will warrant us in abridging the descriptions that might further emphasize the merit of the competitors, but would not particularly enlighten the public.

The chief merit of the Messrs McNaughton consists in having improved a farm, which in its natural state held out few advantages for tillage. It is a farm or rather two contiguous farms dotted with stony hills and wet low grounds, besides being in addition covered in great part with stones.


Fig. 12. (For explanations see page 233)
Still the composition of the soil is good-yellow and calcareous on the hills and good very fertile grey soil in the well drained low grounds.

Four hundred yards of drainage have been made and several handred yards of stone fencing, which called for much work and perseverance. The hills are still largely covered with hard wood bush, especially maple, to the number of at least 5000 of good size and quality. But the Messrs McNaughton only tap a few hundred, using an improved evaporator and metal spouts.

A good road traverses the farm throughout its entire length and several brooks, fed by springs, flow through the pastures and keep the stock constantly supplied with pure fresh water.

Now that this farm has been drained and improved, it vields an abundance of produce of all kinds, grains, fodders, vegetables and fruits. Its total area is 266 acres, of which 100 are ploughed, 35 in natural pastures, 89 in bush and 2 in orchard.

In all other respects, it is a fine farm pleasantly situated on the Chateauguay river at a point where there is a charming little island hemmed in by rapids.

The orchards contain several handred fine apple-trees of different varieties. There is also a magnificent plantation of maples to the number


Fig. 13. (See page 234)
of several hundreds along the roadside and in front of the house (V. fig. 15. pl. 3 and fig. 16).

The crops are varied and well tilled.


Fig. I5. Mc Namghton's farm. -Vicw of pathic rowl.



Stock--Five working horses, five young horses and two yearling colts; twenty two grade Ayrshire and Durham cows, seventern heifers, one two year old I) arham bull, eleven calves and three oxen, all of pretty good quality; twenty six Shropshire sheep and nine pigs.

The produce of these herds was last year, according to Messrs McNaughton's figures, 55,250 ths of milk and $\$ 399,00$ in money from the sale of animals.

Building. -The dwelling house is an immense two story stone buildiner of $40 \times 60$ feet, with kitchen, store-room and cellar, in the basement, erected fifty to sixty years ago by Captain DeWit. It lowk more like an old seigniorial manor-house than a farmer's residence. Miss aud the Messrs McNaughton, all unmarried, who live in it, could find room for three families.

This vast, well laid out and well furnished house provides its osenpants with all the comfort desirable, but the problem of economical lodging is not perfectly solved. It is pleasantly situated on the bank of the river, where the latter is broken by the rapid already meutioned, which formerly furnished the water power for a saw-mill now pulled down. The garden, well stocked with a great variety of fine regetables, is to the south of the house quite near the river.

For the other buildings and their relative positions see fig. 16 and references. These buildings are good, well kept and comfortable, but are not superior in all respects.

For the whole of the farm entered in the competition, including the fine work executed through the industry of Miss MeNaughtou, we have awarded 86.42 points which entitle the competitors to the silver medal as a reward of their unquestionable merit.

## FIGURES AND REFRRENCES.

Fig. 14, (Plate 2).
View of the buildings from the eastern part of Messrs. McNaughton's farm, showing a portion of the orchard to the right on an elevation and a grove of trees on another hil to the left, the farm avenue and the stone fence on the hill.

Fig. 15, (Plate 3).
View of the public road in front of the MeNaughton property, bordered by fine maples and orchards.


Fig. 16.
Front of the McNaughton farm. Relative position of the buildings, avenues, orchards, \&c.
(A) Chateauguay river ;
(B) Small elevated island mostly covered by forest and fruit trees; a very picturesque spot ;
(CC) Rapids ;
(D) Water power, site of an old saw mill now demolished;
(EE) Road and bridge leading to thẹ south bank ;
(FF) Orchards ;
(G) Public road bordered with trees. (V. p. 15, pl. 3);
(H) Dwelling house and dependencies ;
(II) Farm roads ;
(JJ) Farm buildings ;
(K) Farm house, rented in summer ;

## COUNTY OF BEAUHARNOIS.

The fine rich county of Beauharnois was only represented by two competitors, both of St. Stanislas de Kostka, Messrs François Laframboise, of the 5th range at $\frac{3}{4}$ of a mile from the station of the St. Lawrence and Adirondack Railway and Jos. Chayer, of the same range, at 21 miles from the same station. The principal local market for the two competitors is the very prosperous little town of Valleyfield only a few miles to the northward.

## Mr FRANC̦OIS LAFRAMBOISE 78.50 pts., bronze medal.)

Mr. Laframboise's farm comprises 90 acres, 76 of which are under ploughed tillage, and 12 acres in maple sugary ; it is composed of 2 half lots skirting the road leading to the 5th range, The soil, which is of a clayey texture, is of good quality. Although the drainage works seem unobjectionable, certain spots suffer from an excess of humidity produced by natural causes beyond the proprietor's control. The great spring freshets carry with them a quantity of foul weed seeds which take triumphant possession of this fertile soil. Among others, the wild mustard seems to have made its home there. In spite of the incessant war which Mr. Laframboise wages against it, it shows itself terribly stubborn.

The tillage appeared to be in general well performed and the rotation followed good.

1st year: Grain and manured hoed crops.
2nd year: Cereals, barley, etc, with fodder seeds.
3rd and 5th year: Meadow.
5th and 6th year: Pasture, spring manurings given the hoed crops, roots, etc.

Nerertheless, the carrying out of the system as a whole seemed to us as if it couldibe more perfect. The symmetry and regularity of the dirisions, in keeping with a perfect rotation, were not up to the mark.

The position of the garden, lawn and buildings is good. The site of the dwelling house is exceedingly well chosen and very pleasant on the southern slope of a pretty hill clothed with maples, in the centre of the farm. Between the house and the maple bush, there is a small vineyard from which Mr Laframboise markets \$15 to \$20 worth of Concord grapes. The rocky eminence thus utilized supplies shade to the herds, which come to rest under it and constitute an ornament as well as a source of useful products. The house, surrounded with a lawn embellished with trees and flowers, is well built of brick and properly and comfortably laid out, as may be judged from the subjoined illustration (Fig. 17, pl. 3).

The farm buildings, although good, present no specially remarkable feature, apart from two second class silos in the barn.

The stock are pretty good. They include a bull and a couple of Agrshire cows, six head of Shropshire sheep, and 1 sow of the Tamworth breed with her litter of young.

The implements, although inferior to others, are good and sufficient. They include a certain number of tools for working wood and iron.

Mr. Laframboise has no manure shed. He uses up all his manure in the spring and does not waste any of it apparently except the liquid part, which soaks through the floors of his stables, these not being water-tight.

Real Improvements, - Apart from the drainage works, we may note 6 to 7 acres of stone fencing, 4 stone culverts of lasting charater, the entrances of the doors of the building; formed of lares flut stones, the pirg pens raised on stones covered with earth and, besides grood wells, an abundant spring of pure water for the use of the animals on pasture.

The remarkable feature of this competitor is the agreeable, economical, handy and comfortable arrangement of his dwellines, his skill in wood and irou working, which enables him to do the repairs of his implements, himself and his administrative economy, which has largely contribated to his success

Fig. 17.
View of Mr. François Laframboise's dwelling-house, taken from the east, and showing vineyard, maple bush, plantations, lawn, garden, the garden to the south east \&c., all of which sufficiently indicate the advantages of the site.

Mr. JOS. CHAYER (83 35 pts, bronze medal).
Mr. Chayer owns 150 acres of land, of which 110 are ander cultivation, 30 in permanent pasture, 9 in bush and 1 in orchard. Soil : excellent clay land covered in places by a coat of vegetable earth; the low grounds frequently flooded in the spring and consequently hard to drain. Mr. Chayer is therefore obliged to exert all his skill in making good drainage work : ditches, trenches, ploughings, cleaning out the furrows, etc., which, notwithstanding the drawback noted, secures for him abundant crops of grain, hay, Indian corn and vegetables. The work of cultivation is everywhere well performed and the land well cleaned up.

We have no views of Mr Chayer's farm because photography could not illustrate his chief merit, which consists in the perfection with which he does all his tillage work, his industry, his spirit of adrancement and his energy and perseverance. For if Mr. Chayer owns today a lot and a
half of good land, it is due to his economy and his intelligent and persevering work, his start haring been that of a poor farmer.

The rotation followed by Mr. Chayer is about the same as Mr. Laframboise's. He raises several acres of hoed crops.

Mr. Chayer's dwelling house is, like his farm buildings, unfarorably located in a low spot subject to flooding in the spring. Yet, in the centre of his southern lot, there is a charming limestone hillock covered with maples and a pretty orchard, in the centre of which there are still an habitable house and other old farm buildings, which are being repaired. This is the site par excellence for the house and other farm buildings. It is just such sites that several other competitors, Messrs. Younie, Muir, Roy \&c., among others, have utilized and turned to account. But it may be that Mr. Chayer will continue to gratify for a long time yet the inveterate taste of the French Canadians for the road-side. Nature may have its charms and the spot other economic advantages, but nothing can dissipate the wearisomeness begotten of remotiness from the public road.

## COUNTY UF CHATEAUGUAY

The County of Chateauguay, one of the richest, if not actually the richest of the agricultural counties of the province, was the most largely and the most thoroughly represented in the competition. We visited eleven competitors: Messrs John McDougall, of Ormstown, at $2 \frac{1}{2}$ miles, from the G.T.R station; Will. McDougall, ibid, at $2 \frac{1}{3}$ miles from the same station ; Robert Roy. ibid, at 3 miles from the station of Ormstown; Alex. Younie, 3rd range of South Georgetown, at 1 mile from the station of Brysons; J. W. Logan, South Georgetown, 2 miles from the station of Brysons, B. P., Allan's Corner; Alex. Cunningham, ibid, at $2 \frac{1}{4}$ miles from the same station, B. P., Brysonville; John Templeton, Howich, 2 miles from the station ; Robert McFarlane, Riverfield, 212 miles from the station of Howick ; Onésime Demers, Ste. Martine, 2 miles from the station; Théodore O. Bourdon, Ste. Philomène, 3 miles from the 8 t . Latrence \& Adirondack station. All these competitors reflect honor upon the beautiful district which they represent.

Mr. JOHN McDOUGALL, (87.15 pts., silver medal.)
Mr. John McDougall's farm, situated on the north bank of the C'hateauguay river, at a short distance from the Des Salaberry monument, comprises 122 acres, all under tillage. The soil is an alluvial clay of fine texture, deep, a littie cold and retentive, but apparently very rich in plant food: It is good hard-wood land. It requires to be abundantly supplied with humus, deeply and thoroughly ploughed, aerated and warmed, without which the thistle, the crowfoot daisy and the wild camomile are apt to take root in it. As he was unable this spring to do his sowing in the most favorable time, Mr. McDougall's crops have somewhat suffered in point of quality and quantity, which has been the canse of his falling several points below his brother, Mr. Will McDougall.

The system of cropping pursued is good and the dirision of the land a model one.

Rotation.-1. Oats ; 2. Barley ; 3. Meadow ; 4. Meadow ; 5. Pasture ; 6. Pasture, with a top dressing of manure in the spring of the first year of pasturing.

Mr. McDougall considers this system the best for his soil. The piece of vegetables raised is done on fallow alongside of oats. The mode of manuring practised by Mr. McDougal! is also followed by most of the Chateauguay county competitors. It seems to enormously faror the growth of the grass, the enrichment of the pastures and the soil with hamus and consequently the yield of the grain, the result being that the clover is very abundant in the pastures and the crops of cereals promise to be better than everywhere else in the other counties. The fields are regularly divided and well levelled and the earth thrown out from the ditches is all removed

The road extending from the public highway to within seven acres of the extremity of the land is rery straight, level, rounded off and bordered on each side with a ditch to receive the water from the furrows and trenches crossing the fields. All these regular and weli made water courses seemed to us to not be deep enough for the draining of the subsoil. The plots are wide, about 14 feet, and straight, with well cleaned out furrows. The depth of the ploughing is about 7 inches.

Everywhere on the farm, in the yard, buildings and dwelling house we had occasion to admire the most perfect order.

The herd of 14 cows is Ayrshire and grade Ayrshire and of good quality.

The quantity of milk taken to the creamery last year was $66,000 \mathrm{mbs}$ and yielded 86 cts per 100 tts . On the 26th, 27th and 28th June last, Mr McDougall took to the factory an average of $847 \frac{2}{3}$ tbs of milk per day, exclusive of 24 ths kept for home use, which brought up the daily yield of milk to $871 \frac{2}{3}$ fts. This figure represents the milk, weighed together, of the two McDougall brothers, which gives an average of 31 to 32 孔s per cow.

The pigs are grade Yorkshires and Berkshires.
The subjoined illustrations show clearly the good division of the farm and the excellent relative arrangement of the house, the orchard, the plantations and the different buildings, to obviate the necessity of further comment.

Book-keeping.-Mr. McDougall keeps a good journal of his cash receipts and payments, which enables him to intelligently follow his financial operations.


Mr. McDougall began operations 18 years ago, after buying the farm in partnership with his brother, for $\$ 6,600$ on credit, his share being worth about $\$ 3,000$; he has now $\$ 2,000$ out on loan. If the farm is good, the farmer seems to be equally good.

Crops of 1901.-Barley, $6 \frac{1}{2}$ acres; Oats, 17 acres ; mixture of barley and oats, 4 acres; fodder roots, $1 / 8$ acre ; potatoes 778 acre ; meadows, $35 \frac{1}{2}$ acres; pastures, 49 acres ; orchard. $\frac{3}{4}$ acre. Mr, McDougall devotes himself more to grass and hay raising than to the cultivation of roots and Indian corn.

## FlGURES AND REFERENCES

Fig. 18
General plan of the farm.
(a) Rich clover pasture: 7 acres;
(b) Meadow, 5 acres;
(b1) Public highway ;
(c) Oats, 9 acres ;
(d) Barley, $2 \frac{1}{2}$ acres;
(e) Houses and dependencies, farm buildings, yard and orchard, about 2 acres ;
(f) Meadow, 4 acres;
(g) Pasture, 8 acres;
(h) do 8 acres:
(i) do 11 acres;
(j) Meadow, 10 acres;
(k) Barley and mixture 4 and 4-8 acres ;
(l) Oats, 8 acres;
(l) Vegetables, 1 acre;
(n) Pasture, 15 acres;
(o). Meadow, 16 acres ;
( $m$ ) Hay barn;
(p) Artesian well and pump;
(q) G. T. Railway ;
N. B. The area "of the "fields is given in round ${ }_{2}$ figures without mathematical exactness, the Commission having made no precise measurements.


Fig. 18.


Fig. 19.

Plan of the installation and relative position of the buildings, garden, lawn, orchard, avenue, etc.
(a) Public highway ;
(b) Avenue or farm road, 24 feet wide, bordered with fine trees to the south west to beyond the farm buildings ;
(c) Orchard, lawn and garden ;
(c1) Yard and green sward;
(d) Dwelling house, main block;
(e) Kitchen ;
(f) Wash house and wood shed ;
(g) Bee-hives;
(h) Carpenter shop;
(i). Shelter for lumber;
(j) Piggery ;
(k) Privies ;
(l) Pump ;
( mm ) Foot paths;
( $n$ ) Carriage shed;
(o) Implement shed ;
( $p$ ) Stock shed, containing 2, water trough ;
(q) Loose 'cox for animals ;
(rr) Threshing floors;
(s) Shed for loose animals and manures, supplied with racks;
(tt) Compartments for grains or fodders ;
(u) Grain loft ;
(v) Cow stable ;
(x) Horse stable.

Fig. 20, (Plate 4).
View of the dwelling house and lawn (1).
MR. WILLIAM McDOUGALL.
(88.17 points ; silver medal.)

Mr. William McDougall lives a few hundred yards below Mr John McDougall, his brother, on the same bank of the Chateauguay river. His farm, of a superficial area of 135 arpents all under cultivation, greatly resembles that of his brother, the last mentioned competitor, as regards soil, division, system of cultivation. dimensions and arrangement of farm buildings, the number and quality of the stock, the manner in which everything is kept,the general order prevailing everywhere,comfortable dwelling, etc. The house is of brick, however, is not so old, and is built in a prettier style. The orchard and ornamental trees, etc., are also younger.

The same intelligent direction has presided over the establishment and improvement of both farms and the same mind and farming know. ledge are apparent in their working.

The two McDougall brothers give an admirable example, not only of brotherly relations but also of perfect agricultural and social brotherhood. Married to two sisters, both superior women in every respect, each living on his own farm, they till the soil in common and after taking what is needed for the subsistence of their families, they share harmoniously the proceeds of the sales. This is a fine lesson for covetous families who are always fighting in order to grasp sheds of the paternal inheritance.

The Year's Crops.-Barley, 6 acres ; oats, 19 acres ; maslin of barley and oats, 4 acres ; roots $1 / 20$ acre; potatoes, $\frac{1}{2}$ acre ; hay, 35 acres; pasture, 64 acres ; orchard, $\frac{1}{2}$ acre.

The yield was abundant and somewhat cleaner than on the last mentioned farm. The land also seemed io us to be better drained. The

[^2]

Fig. 20. Mclougall's farm.... Honse




Messrs. McDougall do their work alone and seldom have recourse to outside labor, the result being that the work is done with method, order and perfection, and their system of cultivation does not call, for more labor than they can thoroughly do themselves.

Cow-stables.-On the 28th. May there were 13 cows, anongst which were 3 heifers, giving 460 fbs of milk, one 55 ks , and ten 390 ms . On the 28th June in the evening after 3 days of intense heat, one gave 24 fts and another 22 tbs .

The quantity of milk supplied the factory last year was 65,000 izs at 86 cents per 100 fbs .

FIGURES AND REFERENCES
Figure 21.
Plan of the lower part of the farm, findicating the position of the buildings, arenue orchard, etc.
(a) Highway ;
(b) Pasture ;
(c) Avenue or road bordered by maple trees;
(d) Orchard and lawn ;
(e) Alley leading to main entrance of house ;
(ff) Fields of grain ;
( $g$ ) House and dependencies;
(h) Farm buildings;
(ii) Slope of hill.

Fig 22. (Plate 4)
View of Mr. McDongall's pretty residence taken from the lawn on the north side, showing the family on the verandah.
Fig. 23. (Plate 4)

View of the farm buildings, taken from the east.

## Mr. ALEXANDER YOUNIE (89.13 pts, silver medal.)

Mr. Younie's farm is in the Tullochgorum range, one of the most fertile


Fig. 21.
in the county of Chateauguay. This range was opened about 1848 by

Scotch settlers and when the first house was built by one McEwan, the event was celebrated by dancing the scotch reel called "Tullochgoram," hence the name given to the range.

This farm has an area of 115 acres, two being wood-land and half an acre of orchard. The soil is argilo-calcareous, rather porous, deep and of the best quality. The farm is well laid out, well fenced, drained and cleared and very well cultivated.

The system of cultivation followed is excellent, being similar to that of the McDougall brothers. The rotation is as follows: 1st year, Indian corn and oats; 2nd year, maslin of oats, peas and barley with timothy and clover seeds; 3rd year, clover meadow ; 4th year, timothy meadow; 5th year, top-dressing of manure in the spring and pasture ; 6th year, pasture ; 7th year, pasture ; 8th year, Indian corn and oats. The two latter crops are grown on different fields than those of the 1st year.

The depth of the ploughing is six inches for the first and seven inches for the second year of the rotation.

The system of drainage consists of ditches and trenches regularly laid out and well kept.

As with the Messrs McDougall the earth from the ditches is all spread out and the soil is well levelled.

Choice and preparation of seed grain.-Mr. Younie allows the best plot of timothy to ripen thoroughly and cuts it with the reaper in order to get seed for his meadows. He thoroughly winnows and cleans his other seeds which he changes from time to time when needed, but he buys his clover and Indian corn seed from the trade.

Manures.-This competitor has a sufficiently large herd of catile to consume almost all that is produced by his farm. The flooring of his stable being cemented, he loses none of his manure. The dung is piled in the yard to ferment in heaps during a short space of time and is then hauled on the fields during winter to be spread out early in the spring as stated above.

The orchard and garden are manured every two years.
Food of cors in winter.-Ensilage and ground grain followed by a ration of hay and straw, night and morning ; nothing at noon. Water and salt are kept constantly before the cattle.

Dwelling.-Mr. Younie's house is built near the centre of his farm on a pretty hill, in the middle of a clump of maples, oaks and butter-nut trees and a young orchard. The site of the house and buildings may be considered a model one as regards selection, taste, pleasantness and economy.

The house, a well built one of brick, with bay-windows and extension kitchen, with a verandah on each side, laundry or summer kitchen and wood-shed, is a first class dwelling ; it is well divided, well finished, and laid out and provided with modern improvements. The cellar is cemented and contains several compartments. A fine lawn with flower beds surrounds this pleasant dwelling.

Amongst the buildings around the house we may mention a smokehouse $7^{\prime} \times 7^{\prime}$; a joiner's shop $16^{\prime} \times 24^{\prime}$; a wood-shed $16^{\prime} \times 26^{\prime}$; a corn dryer $4^{\prime} \times 12^{\prime}$; a shed for vehicles and grain $20^{\prime} \times 36^{\prime}$; a piggery and poultry house $15^{\prime} \times 28^{\prime}$; a shed for implements $18^{\prime} \times 29^{\prime}$.

The farm buildings and gates are white-washed. The former are roofed with galvanized iron and painted sheet iron, some with sheet iron on battens and others with shingles. Although the disposition and shape of these buildings are not ordinary, the economy and comfort they offer are sufficient to enable them to add to the success of the farm.

A force pump in the stable draws water from a well fed by springs and distributes it by means of iron pipes provided with connections and taps, in the stable troughs and even outside if necessary.

The base of the silo is provided with shutters which remain open when the silo is empty and close hermetically when it is filled. This is a very simple means of preserving the silo by preventing the floor-joists from rotting.

The figures given below show the merit of the competitor as regards his buildings.

Implements and tools. - Mr. Younie's farm is in this respect one of the best in the present competition. Not a machine or a tool needed for the proper performance of the farm work is missing ; there is eren a roadshovel.

Accounts.-Mr. Younie keeps a day-book of receipts and expenditure and a ledger in such a manner as to show that herks his farm on business principles. He has an office and a small library pretty well supplied with books such as all farmers should have.

The cash account for the year 1900 shows receipts to the amount of $\$ 1,410.53$ and expenses on account of the farm of $\$ 34500$. The revenue from the cows for milk taken to the factory is $\$ 671.08$, the proceeds of 87.793 libs of milk, apart from $\$ 6604$ in milk, butter and cheese consumed by the family.

The result seems to us praiseworthy. In fact Mr. Younie passes, in the locality, for one of the farmers who makes the most money, considering the area of his farm.

Improvements to the soil.-These consist in removing stones to a slight extent, the proper disposition, making and keeping of ditches and trenches; levelling the soil ; planting of forest trees and the alley or farm road, well made and well kept, communicating with all the fields.

Stock.-4 work horses, 1 yearling colt, 14 Durham-Ayrshire cows and some grade Holsteins; 1 registered Durham bull, for which $\$ 125$ was paid while a calf ; 9 grade heifer ; 13 oxen for slaughter; $1 \pm$ calres; 1 DurocJersey sow and ten young pigs; in all 67 head, young and old. apart from the poultry. There are also a good number of Plymouth Rock fowl. Most of the young oxen destined for slaughter were bought in the province of Ontario to be fattened on the abuadant grass of the pastures. This speculation has been practised this year by many in the county.

Mr. Younie, as may be seen, is a producor of milk and meat; he intro-
duces Durham blood into his herd with the view of increasing the value of his cattle as butcher's meat while retaining good milking qualities. We know that this theory is not admitted in principle but we have seen it practised by several competitors of great merit. Mr. Younie claims that, under the circumstances, in view of the price of beef and the difficulty of procuring cheap labor for milking the cows, he makes more money in this way than he would otherwise. The judgment and calculation with which he manages his business, added to the evidence of his neighbors, give considerable weight to his opinion which, as we have just said, is shared by several other good farmers.

## Crops.



Orchard $\frac{1}{2}$ acre. -25 apple trees still young and 12 cherry trees. The trees were sprayed.

Bees.-3 hives.
Mr. Younie's crops of grain and hay were generally good. One meadow yielded 400 bundles of hay to the acre; the whole together deserved 29.51 points.
M. Younie is still a young man ; he can do better yet and long may he enjoy his success and the satisfaction of wearing the silver medal which he has gained as one of the leading successful competitors.


Fig. 24. A. Younie's farm.-IBnildings and srove.


Fig. 29. J. W. I.ogan's farm.-Agrshire herd.


Fig. 31. A. Cunningham's farm.-Barns and stables.

## FIGURES AND REFERENCES.

## Fig. 24 (Plate 5).

View of farm buildings and grove, taken from thessoutht; the house is hidden by the barns and trees on the north.

Fig. 25.
General plan of the farm, comprising seven fields of 15 acres, each divided into two portions of $7 \frac{1}{2}$ acres, with the exception of the one in front of the house which is 62 acres.
(a) Highway ;
(b) Alley 25 feet wide.

Fig. 26
Division of farm buildings:
(a) Penthouse stable for young stock;
(b) Barn;
(cc) Threshing floors;
(dd) Stalls in heifers' stable ;
(ee) Box-stalls;
(f) Cow-stable;
(f1) Pump;
(g) Barn;
(h) Feeding-room ;
(i) Silo;
(j) Covered passage or shed;
(k) Horse stable;


Fig. 25.
(l) Barn;
( $m$ ) Well fed by springs and pump under shelter;


Fig. 26. (See preceding page)
(n) Yard.

$$
\text { Fig. } 27 .
$$

View of a double stall in the cow-stable.
(a) Division 2 " thick between each cow on the front of the manger;
(b) Salt box.
(c) Iron rod $\frac{3}{8}$ " holding the upper part of the aforesaid division fastened to the horizontal piece (b) 2 " $\times 5$ " running along the upper end of the front piece of the stalls.

Mr. J.- W. LOGAN (85.20 points, silver medal)
Mr. Logan's farm, containing 100 acres, all under cultivation, is situated on the south bank of the Chateaugray river, near Allan's Corner.


Fig, 27
The soil is good and apparently of the same physical composition as that of the Messrs McDougall.

It is also well laid out, properly fenced, in view of a good 6 years rotation, as follows : 1st year, Indian corn and oats; 2nd year, oats; 3rd year, timothy and clover ; 4th year, meadow ; 5th year, pasture ; 6th year, pasture.

The tillage work is well done; ploughing 5 " to 7 "; drains, ditches and trenches, good ; crop, fine.

The annexed plan, showing the various crops of the year, gives a sufficient idea of the value of the system followed. The alley is 24 feet wide with good ditches on either side.

The buildings which are still good present nothing worthy of note.
The manure is all well employed. Some stones on the surface of the soil hare been removed. The earth from the ditches has been levelled.

The most attractive feature of Mr. Logan's farm is his fine herd of registered Ayrshires. When the judges visited it, it consisted of a bull 2 years old; 11 milch cows; 4 other cows not giving milk; 11 heifers, 1 and 2 years old, and 8 calves.

There were 9 swine.
The total number of points allowed for all the details of the farm amounts to $85_{100}^{20}$ which will give Mr . Logan the satisfaction of being decorated with the medal of Very Great Merit.

## FIGURES AND REFERENCES

Fig. 28.

Plan showing the division of the farm:
(a) Potatoes, $\frac{1}{4}$ acre ;
(b) Pasture, $\frac{3}{4}$ acre;
(c) Pasture, 2 acres;
(d) Pasture, 3 acres;
(e) Buildings, yard and orchard;
(f) Highway ;
(g) Meadow, 10 acres;
(h) Meadow, 10 acres;
(i) Pasture, 10 acres;
(j) Oats, 6 acres ;
(j1) Indian corn, 4 acres;
(k) Pasture, 10 acres ;
(l) Meadow ;
( $m$ ) Meadow, 16 acres;
( $n$ ) Oats, 6 acres;
(n1) Maslin, barley and oats, 4 acres;
(o) Alley, 24 feet wide;
(p) Ditches.

Fig. 29 (Plate 5).
View of some Ayrshire cows belonging to Mr. W. Logan.
N.-B.-In 1501 Mr . Logan's herd carried off 14 first, 12 secoud prizes and 4 diplomas at Sherbrooke and Ottawa.


Fig. :-

Mr. THOMAS ALEXANDER CUNNINGHAM, (85.02 points; silver medal).

Mr. Cunningham's farm is the next below Mr. Logan's on the same bank of the Chateauguay. The composition and quality of the soil are similar to those of the farms in the same valley of which we have already spoken. The area of this farm is 130 acres, all under cultivation. The same system of cultivation, rotation, division and crops are about the same as Mr. Logan's (See plan of farm).

The house, an old-fashioned one, is still good and comfortable, well furnished and well kept. It has an extension kitchen $16^{\prime} \times 34^{\prime}$ with a sink and water-tap and is surrounded by a fine lawn, an orchard with some thirty good apple trees and an ornamental plantation of 75 cedars and 25 maples; these also provide shade and shelter from the wind and give the dwelling an air of distinction in spite of its simple style of construction.

Buildings.-During the summer Mr. Cunningham built a cow-stable, a horse-stable and a double silo by joining and re-arranging two barns so as to make a block of baildings which may be considered a pattern as regards division, laying out, dimensions, convenience and comfort (Seefig. 32).

This work and the great scarcity of manual labor have somewhat. hampered Mr Cunningham's tillage and he was unable to give his farm all the attention for some matters of detail on which he lost points; otherwise he would have had a higher place in the scale and one more in keeping with his agricultural knowledge.

The other buildings are: a shed $30^{\prime} \times 48^{\prime}$ with a large door at each end for vehicles, implements \&c., containing an ice house 12 ' $\times 12$ ' above, and a carpenter's shop with all necessary tools; a wood-shed, a special shed for implements and machines $20^{\prime} \times 45$; a blacksmith's shop 12 ' $\times 16^{\prime}$ with anvil, vices, tools \&c.

Mr. Cunningham repairs his machines, and shoes his horses himselfHe is very fond of horses.

All the buildings are built on stone foundations or pillars.
Water is supplied to the houses and farm by a wind mill pump over a well fed by springs, which forces the water into a tank in the upper story of the buildings. This pump cost $\$ 92.00$ with the well.

The silo in the barn is divided into two compartments and is well built.

The farming implements and tools are complete and well kept.
The manure was not completely used, nor was it in a condition to Jose any of the fertilizing elements.

Mr. Cunningham's practice is to spread it on the meadows in the spring of the second year. He harrows and rolls after spreading and claims that the hay is better. We admit that it is more abundant and more improving for the soil, but the question is whether it is more tasty when first cut; competitors who practise this system gave us no proofs and we could not get the opinion of the animals that consume the hay. We are pleased, however, to say that the entire area in hay and pasture won $100 \%$ in points in the allotment for production.

Improvements to soil.-The competitor states that he remored about a hundred loads of stone. It must be said that the land in this region is not rocky.

The soil is well levelled and well drained by means of good ditches and well kept furrows. Mr. Cunningham ploughs in clover from time to time.

Stock.-This consists of four good draught horses and two colts; twenty-one Ayrshire-Durham cows and heifers that have calved; a yearling heifer and seven calves all of fine quality. Mr. Cunningham generally keeps 27 cows and 5 or 6 swine. He sells his milk which explains the small number of swine. At the date of our visit he had 50 or 60 Plymouth Rock hens and 125 chickens. The latter were kept for two weeks ouly with the mother, then separated from her and kept in small enclosures

3' $x 12$ " and $2^{\prime}$ high surrounded by wire netting. Mr Cunningham says that the advantage of this system is that the hens begin sooner to lay again and the chickens do not dirty the yards and lawn. We were not told what the drawbacks of the system might be.

Accounts.-Mr. Cunningham does not keep complete accounts. He claims nevertheless that he can at any time tell the revenue of his farm and the state of his affairs. We could not do so from his books. In his application, we find that he purchases some tons of bran and ground grain, probably for the purpose of mixing in the rations or with Indian corn ensilage.

On the other hand, he sold last year 400
bushels of oats................................. \$ 15200
And he obtained for milk.... ................ 1,408 62
Total sales ...... ....... ........... \$1,560 62
We have no doubt that with the improvement in his stables and the greater care he will be able to give in future to his manure and his crops, Mr. Cunningham will perceptibly add to his revenue.

FIGURES AND REFERENCES.

Fig. 30.
Plan of farm :
(a) Indian corn and other vegetables ;
(b) Pastures ;
(c) Indian corn for forage ;
(c1) Road;
(d) Pasture, 16 acres ;
(e) Pasture, 16 acres ;


Fig. 30.
(f) Meadow, 10 acres ;
(g) Meadow, 10 acres;
(h) Barley, 10 acres;
(i) Oats, 10 acres;
(j) Oats, 10 acres ;
(k) Old meadow, 12 acres;
(l) Meadow, 30 acres ;
( $m$ ) Alley.
Fig. 31 (plate 5.)
View of Mr. Cunningham's farm buildings from the west.
Fig. 32.
General plan and relative position of the buildings of the farm.
(a) Highway ;
(b) Orchard ;
(b1) Clover, 1 acre ;
(c) Lawn and flowers ;
(d) House and dependencies ;
(e) Wood-shed ;
(f) Avenue;
(g) Workshop;
(h) Shed for vehicles with workshop and store-room ab v
(i) Coach-house ;
(j) Poultry-house ;
(k) Box-stalls ;
(l) Barns and threshing floors;
( mm ) Silos;
(n) Cow-stable;
(o) Granary ;
(p) Pent-house pig-st e


Fig. 32
(q) Horse-stable ;
(r) Sidewalk;
(s) Yards;
N. B. The points indicate the spots where ornamental trees are planted.


Fig. 33.
Section of a stall half width same stable animals with their heads to the wall.

## Mr. ROBERT ROY (86.32 points, silver medal).

Mr. Robert Roy's farm is situated in the third range of Ormstown, three miles from the village. When he bought it twenty-five years ago it was in a very bad condition. The composition of the soil is good, but the land consists of hillocks of limestone rocks and boggy low lands with, in the intervals, good bits of rich clay loam in which grain of all kinds and hay grow abundantly. The low lands are difficult to drain and are apt to suffer from excessire humidity in heary rains, notwithstanding :good ditches at the proper places.

The area of the farm is 162 acres, but 120 only can be ploughed ; the remaining 42 acres consist of stony hillocks, used as permanent pastures, 4 acres in woodland part of which is a sugary.

At the first glance from the highway, this farm does not produce a favorable impression owing to its boggy nature and the incomplete drainage of the nearer parts and the considerable distance of the buildings. from the road. But when all parts are examined in detail with all the elements that enter into the working, the first impression is soon dispelled and one is convinced that everything is calculated intelligently in order to derive the greatest revenue in the most economical manner from all varieties of soil and from the entire farm. Nothing is lost ; what appears unfertile yields products of appreciable value. If there be a want of order in certain details, the surest sources of profit are not neglected : crops, drains, stock, etc., are carefully looked after. The crops are clean beyond reproach and sufficiently varied.

Mr Roy follows a mixed system with dairying as the chief source of revenue. He sells horses, sheep, and swine and takes his milk to the neighboring factory. In $1900,86,939 \mathrm{tbs}$ of milk brought him $\$ 665.00$, according to the figures in his application.

Rotation.-1st year. Indian corn, potatoes, roots and mixed grain.
2nd year. Wheat, barley, oats with fodder seeds.
3rd and 4th years. Hay.
5th 6th and 7th years. Pastures.
Manure.-This is put partly on the new meadow in the spring and partly in autumn or in summer on pasture destined to hoed crops in the following year.

Manure not used before autumn is kept in heaps piled up in the yard in a sort of depression whence the liquid manure canvot escape.

Like many competitors in his county, Mr Roy has a silo 12' $\boldsymbol{I}^{\prime}$ I $22^{\prime}$ high, with cemented floor and 7 acres of Indian corn. This silo is built in a corner of the barn and contiguous to the cow-stable.

Buildings.-As the low-lying land near the road is not a suitable site for the farm buildings, Mr Roy has built them, like Mr Yoanie, on a hillock of lime-stone rock near the centre of his farm, thus utilizing the least valuable land for orchards and other plantations, usincr the stone taken from the spot for the buildings. Moreorer the nearness of the barns to all the fields reduces the transport and working expenses, a question of rural economy too often neglected by the majority of farmers in our Province; it is generally subordinated to others of less importance. The apparent isolation merely serves to show out still more the charms and advantages of the farm: elevation, cleanliness, salubrity, shade in summer and the pleasure afforded by plantations of fruit and ornamental trees, affording protection in all seasons against violent winds, etc.

The house, of simple and economical construction, may be considered as a model of the kind. We give an engraving of it with the plan of the divisions as a useful detail in this competition. We do not mean thereby to disparage the first class houses, very well kept and laid out and even of greater value, of several other competitors; they would have been equally deserving of mention, but it was impossible for us to give so many engravings which would have not been of any use for the instruction of the public.

The other buildings shown in figure $3 t$ have no special interest. We would however point out a carpenter's shop with tools and the poultry house which is cemented, well lighted and well situated.

The machines and tools are very complete and in good order. We would mention a most useful machine, an improved sifter, winnower and separator for seed manufactured by The ()ntario Seed and Grain Separator Co. Ltd., of Fergus, Ont. According to Mr. Roy it is an excellent separator even for clover and timothy seed and a good winnower, winnowing 25 bushel an hour. Its cost is $\$ 2800$.

Stock.-The stock consists of 1 registered thoroughbred Ayrshire bull, "Lord Minto", very good ; 20 grade Ayrshire cows, 18 of which give milk; 12 good heifers all in good condition ; 8 calves which do not seem very strong owing to their diet being made up with whey from the cheese factory; a fine Tamworth sow with 6 fine thoroughbred young pigs; 20 sheep and lambs, first class, thoroughbred Shropshires (See fig. 26 plate 6). The ram won the sweepstake at the last exhibition in Sherbrooke; 6 good draught horses and 4 good young horses; a good flock of Plymouth Rocks. All the stock belongs to profitable breeds and possesses profitable qualities.

Book-keeping.-Since the month of January last (1901), Mr. Roy, through his son, keeps a journal of disbursments and receipts in money in a good bound book and well written; this is a good beginning; may the continuation and the results be better still.

Land Improvements - We may mention 600 yards of stone fencing, 75 yards of drains in clay pipes, ditches and trenches well built and fairly numerons, the straigtening of a main water-course, the construction of ten stone culverts, the planting of fruit and ornamental trees, 40 to 50 being fine maple trees and five grood black walnut trees, before the house and near the buildings, apart from the grove, a good avenue from the public road to the upper end of the farm, etc.

The orchard contains 25 to 30 good apple-trees, very healthy and bearing well.

The garden at the side of the house contains different vegetables and small fruits.

The extent of the ground bearing different crops is about as follows : Grain :-Wheat, barley and oats, peas, oats............ ............ 33 acres. Hoed crops; beans .05 acre; mangolds, $\frac{1}{2}$ acre turnips; $\frac{1}{2}$ acre, carrots $\frac{1}{2}$ acre; potatoes, $\frac{1}{2}$ acre; corn for grain, 12 acres ; corn for ensilage 7 acres....................................... 9.17
Meadow...... .......... ...................... .................... ...................... 31
Pasturage ......... ........ ......... ................. .......... .......... .......... 43.50

If all the grain crops are clean, it means that Mr Roy carefuily cultivates a large extent of hoed crops, which supply him with succulent food for his cattle and his sheep. Mr. Roy is amongst the competitors who cultivate a few acres of wheat. It would be desirable that all the farmers who have good cleared land should cultivate a few acres of wheat after clover or manured regetable crops, for the purpose of raising their own bread and not being subject to the uncertainty of the market for the most useful commodity of man's subsistence.

Mrs. Roy is skilled in domestic industry and preserves as a relic her old spinning wheel imported from Scotland.

Success.-About twenty five years ago, Mr. Roy sold the little farm"he owned, for $\$ 2,800.00$ to buy the farm where he now resides, for $\$ 4,000.00$, remaining indebted for the balance.

He has had since to improve the land, drain it, lay it out better, build his house, erect new buildings, etc. He has, in addition, bought another lot for $\$ 4,000.00$, he owes nothing, has good buildings and mouey in hand. He must be a good farmer and able financier, or his land must contain gold. As a reward for his well established merit, the Commission cannot hesitate in granting him the points which assure him the silver medal.

## FIGURES AND REFERENCES

## Fig. 34

Plan of farm and relative position of buildinga, etc., upon a hillock situsted about the centre of the farm $12 \frac{1}{2}$ arpents from the front road.
(aa) Avenue of the farm ;
(b) Cattle enclosure ;
(c) Yard;
(d) Manure pit ;
(e) Granary ;

## (f) Tool-shed;

(g) Grove of cedar and maple trees $\frac{3}{4}$ acres ;
(h) Shed;
(i) Barn ;
(j) Cattle-shed;
(k) Barn, sheepfold and loose boxes;


Fig. 34
(l) Milk-shed;
( $m$ ) Threshing barn;
( $n$ ) Stable;
(o) Shed;
( $p$ ) Poultry-house;
(q) Workshop;
(rr) Yard and lawn;
(8) House and dependencies;
( $t$ ) Garden and orchard, enclosed by a stone fence.


Fig. 35 R. R oy's farm.-Baildings. Fig. 3'. Shropstire an! Mo s m shesp. Fig. 3). J. Templeton's farm.-Buildings. Fig. 43. Barn and stable.

## FIG. 35 (plate 6)

View of the farm buildings and of Mr. Roy's hons', showing part of the grove at the west.


Fig. 36
Ground plan of Mr. Roy's house (lower).
(a) Verandah;
(b) Entrance hall including staircase b1 ;
(c) Parlor ;
(d) Bed-room ;
(d1) Cloak-room ;
(e) Dining-room ;
(e1) Stove ;
(e2) Cupboard ;
(f) Kitchen ;
(f1) Staircase ;
(f2) Stove ;
(g) Bath and sink ;
(h) Pantry; (A small opening with a door allows of articles being passed from one apartment to another) ;
(i) Summer kitchen and wood-shed in a wing, with staircase ( $j$ ) going into the cellar ;
(k) Pump ;
( $m$ ) Stove;


Fig. 37
Plan of the upper part of the house.
(a) Passage used as a sewing-room ;
(bb) Bed-rooms ;
(c) Passage which could be used as a bed-room ;
(d) Trap door to the attic ;

Fig. 38 (plate 6).
View of the house and flock of Shropshire sheep for exhibition belonging to Mr. Roy. They were awarded six first prizes and a diploma at Sherbrooke ; three first and other prizes at Ste. Martine ; four first and others at Huntingdon; four first and others at St. Louis de Gonzague. A ram from this flock which was sold to Mr. Gingras, of St. Césaire, carried off the first.prize at Quebec.

## Mr. JOHN TEMPLETON (87.09 pts, silver medal.)

A little lower down than Mr. Cunningham on the same side is situated the farm of Mr. John Templeton, another remarkable competitor from this district.

This farm is distinguished from afar by the beautifal trees which embellish the surroundings of the house and especially by the imposing barn built a short time ago and surmounted by a wind mill, which announce to passers by and visitors the importance of this farm and its owner's progressive spirit. A fine large property consisting of two lots of a total extent of 182 acres, 178 being capable of cultivation. It is wellbuilt, well cultivated and well drained by a good system of drains and trenches and contains an orchard, vegetable garden, lawn of flowers and grass surrouading a pretty house of a simple style, but well divided and comfortably arranged, giving to the whole place an agreeable and aristocratic appearance.

It is not necessary to say that the growing of the ftowers and looking after of the lawn, like the interior of the house, are in the department of Mrs. Templeton who has leisure, which all house keepers do not possess, to successfully practise her skill as a florist and to gratify her good taste.

The basis of Mr. Templeton's system is the cultivation of hay and pasture, and the feeding of a fairly numerous herd of grade Darhams, apparently more suited for meat than for milk. In this respect, his practice resembles that of Mr. Younie, although it requires a larger relative extent of meadow.

He sells grain, hay, dairy produce, fat oxen, etc., an l buys a few tons of bran.

The following is a statement of last year's accounts given in his arpijcation and taken from a good account book well kept:

RECEIPTs (sales.)
One horse ..... \$ 10000
421 bushels of grain ..... $155 \quad 54$
$24 \frac{1}{2}$ tons hay ..... 33025
89 lbs. butter ..... 22 25
29 head of cattle ..... 1,286 00
Pigs ..... 6200
Milk taken to factory ..... 35585
Total ..... 2,312 19
Expenses ..... 1,621 23
Net profit ..... \$ 69096

It must be noted that if we had to calculate theoretically the value of the elements of fertility taken away in the grain, hay and animals sold, the net profit would be slightly diminished.

Manure is used for hoed crops and pastures, as a top-dressing, in the fall of the first year or spring of the second year. The rotation is 6 years, similar to that of the same number of years practised by other competitors.

Mr. Templeton plants several acres (9) of corn for fodder and owns a good silo with cemented bottom (V. fig. 44).

Drainage-We remarked a hundred and twenty yards of wooden drains that worked well.

Plastering.-Mr. Templeton uses plaster on his meadows, potatoes and corn.

The general production was good on the whole, although it was not superior everywhere.

The number of points gained by the competitor places him in line with the best farmers and will obtain for him the silver medal which he has well deserved.

FIGURES AND REFERENCES.

$$
\text { Fig. } 39 \text { (plate 6). }
$$

General view of the farm, of Mr. J. Templeton's barn and house.


Fig. 40
Lower part of Mr. J. Templeton's property ; position of buildings, etc.
(a) Continuation of farm to the south-east ;
(b) Public road;
(c) Avenue 42 ' below the road ;
(d) Cultivated field ;
(e) Pasture ;
(f) House ;
(gg) Lawn;
(g1) Garden ;
( $h / h$ ) Orchard;
(i) Small fruits ;
( $j$ ) Screen of forest trees;
( $k k$ ) Lower part of hill lined with forest trees, elms, etc ;
(l) Sheds;
( $m$ ) Store and stables ;
( $n$ ) Piggery.


Fig. 41.


Fig. 49.

Plan of ground floor of houses.
(a) Verandah ;
(b) Entiance hall and stairs ;
(cc) Double parlor and bay window ;
(d) Bedroom ;
(e) Room;
(f) Boudoir ;
(g) Kitchen;
(h) Stairs to cellar ;
(i) Stairway leading to rooms above ;
(i) Summer kitchen;
(k) Wood.

## Fig. 42.

Plan of the upper part of the house.
(a) Gallery ;
(b) Hall;
(cc) Bedrooms;
(d) Passage ;
(e) Bathroom :
(f) Garret.

Fig. 43. (Plate 6).
View of Mr. J. Templeton's barn and stables, from the south.
Fig. 44.
Ground plan of Mr. J. Templeton's coach house and stables, under the barn (fig. 43).
(a) Coach house ;
(b) General store;
(b1) Stairs leading to grain loft ;
(b2) Hand-creamer ;
(c) Ice-house ;
(d) Cow-stalls ;
(e) Stable;
(ff) Loose boxes ;
(g) Poultry house;
( $h h$ ) Feeding room;
( $h 1$ ) Stairs leading to barn;
(i) Silo $22^{\prime}$ to $24^{\prime}$ high;


Fig. 41
(j) Root house;
(kk) Fodder traps ;
(ll) Ventilators.
Fig. 45. (Plate 7).
View of a portion of the west row of cow-stalls, taken from behind.


Fig. $+5 . \quad$ J. Templeton sis farm. - Interior of stalile


Fig. 50. R, MacFarlane's farm.-(iroup of cows.


Fig. 51. I. Toupin's farm.-House.


Fig. 46
Cross-section of a row of stall with dimensions shown.
(a) Feeding passage; (v. $f$., fig.-44).
(b) Crib;
(c) Water trough ;
(d) Division wali ;
(e) Tethericg staple;
( $f$ ) Division post and support ;
(g) Drain;
( $h$ ) Parsage of 7 ' between the two drains;
Fig. 47.
Plan of a large barn-door, from the interior, showing the manner of closing.
(a) Moveable bar in the centre keeping one side of the door closed by means of two staples ( $b b$ ) above and below.
(c) Hook with external ring handle, serving to close the other wing from oatside, like the apparatus indicated for Mr. Archie Muir.

## Mr. ROBERT ANDERSON (85 pts., silver medal).

Residence, North Georgetown, near the last-mentioned. Extent of farm, 156 acres all under cultivation, comprising six large divisions of six and twenty four acres. Clayey soil of good quality, covered with an excellent crop of hay and grain, well drained and properly levelled, having an orchard of 40 to 50 trees of various kinds, several being good large ap-


Fig. 47. (See last page.)
ple-trees and a few small fruit and forty ornamental trees. Some serre as shade trees along the fence, others are planted near the buildings and house. These plantations have not always been done with the skill and taste that we have admired among other competitors.

The system of cultivation is good, if one may judge by the abundance and cleanliness of the crops. Of 154 acres under cultivation, there
are 45 acres in grain and corn for fodder, 34 in meadow and 75 in pasture. The large extent of pasture is required for feeding of a good number of cattle for killing.

Rotation is six years, like that of the McDougall brothers; the manure is applied as top-dressing in the green state on stubble intended to be ploughed in the fall to grow grain or regetables. The competitor had no other hoed crops, this year, than two acres of corn.

The house-24' x $30^{\prime}$-is good, clean, well furnished, sufficiently, confortable, provided with a sink, good dependencies, 16 x 20 -and decorated in front with flower beds. We have, however, no detail to point out which is superior to others.

The farm buildings, which are large enough and fairly good, bare nothing particularly remarkable on the whole.

Like a good many other competitors there is a workshop provided with carpenter's tools and a forge.

The farm implements are sufficiently complete and in good order, as are also the fields.

The milch cattle are not numerous, only eight Ayrshire cows, but the herd is large. Besides the above eight cows, we counted in the pasture, thirty heifers from 1 to 2 years, two bulls from 1 to 2 years, thoroughbred Ayrshires, twenty-four oxen for slaughter and five calves, without mentioning four working horses and two colts, all good, and six pigs.

Mr. Anderson has but little help, therefore he cultivates in large lots.
According to the declaration made by him in his application, in 1900, he bought several tons of bran and a few hundred rounds of linseed, and sold :
Grain, 906 bushels ..... \$ 42240
Straw, 10 tous ..... 3000
Butter, 200 lbs ..... 4000
Milch cows ..... 24000
Horses ..... 21600
Animals for killing ..... 42000

$\$ 1,36840$

According to this memorandum, his balance in cash for 1900 would be $\$ 567.00$.

The book-keeping is not complete.
Although there are various items for which the competitor could not obtain as many points as several ot his fellow competitors, he still attains the required degree of merit to entitle him to the silver medal.

## Mr. ROBERT MACFARLANE (89.11 pts. silver medal).

The competitor resides on the west bank of English river, $2 \frac{1}{2}$ miles above Howick. He farms 150 acres of good, heavy sandy clay soil, 100 acres of which he owns, and farms 50 , in a beautiful fertile country.

The system of farming adopted by Mr. MacFarlaue is apparently good and tends essentially to the production of milk which he sells in kind in Montreal.

The division is good without being absolutely perfect from the standpoint of a regular distribution of crops and of that which Mr. MacFarlane follows. The fields are more numerous than the number of years of rotation and not altogether equal in size. However, this detail does not hinder good farming and the success of the competitor's crops which are abundant and very clean.

The rotation is eight years, two years in grain and hoed crops, especially corn for fodder ; two years in meadow, followed by two years in pasture land, with a top-dressing of manure in the spring of the last year of pasture, which is ploughed in the fall of the same year to be seeded in corn the following spring Mr. MacFarlane grows much corn for ensilage. This year he had twelve very fine acres of it (see c and f., fig. 48).

Mr. MacFarlane makes good choice of his seed which he keeps in good condition and changes from time to time when required.

He manures his orchard every two years as several other competitors do.

House and Buildings.-The house is of brick like that of several other competitors. It is not large, $22^{\prime} \times 28^{\prime}$, but is well divided, well painted and provided with good dependencies: kitchen, laundry, pantry, wood shed, etc., the cellar with cemented floor is first class and contains a fruit room. The heating is by hot air. The whole is considered for the purposes of this competition as first class.

The exterior of the farm buildings is inferior to others, but the dirisions, the communications, the dimensions and arrangement of the interior are calculated with a view to economy and convenience and the comfort and health of the animals in view of an abundant production of milk and manure. (See fig. 49).

The fences are of different kinds : of poles and cedar pickets, of boards, of ordinary wire, and of wire fencing (Page's system and American system) with a variety of gates, some of painted boards, others of iron and others, ordinasy gates, running on pulleys.

The avenue 18 feet wide is well levelled. There is a good orchard, a fruit and vegetable garden containing a good variety of vegetables and small fruits for home consumption and for the market. These plots are enclosed by a high fence of wire of 19 strands (S. Page, etc.)

The supply of tools is complete; the manure is well used and well distributed; the stables are mostly cemented. The order of the fields, fences and moveables is excellent.

Stock:-Seven good horses; twenty five good milch cows, Aprshire and grade Ayrshire Durhams, five of which are registered; a bull of a year and a half, thoroughbred Ayrshire; serenteen calves by Unc'e 心am born at the Chicago Exhibition out of Nellie Osborne, the sweepstake at the exhibition; twenty lour heifers from 1 to 2 years, nearly all first class, and
an ox for slaughter. It is one of the best dairy herds and the best kept that we have seen in this competition. Some of the cows calve in the fall and winter, owing to the sale of milk in kind.

The pigs are good, but not numerous, for the reason just given, but there is a good number of Plymouth Rock fowl.

Book-keeping :-The competitor keeps a day-book of receipts and expenditure in money, a book of current accounts of those with whom he deals and a ledger into which the amounts are carried at the end of each month. These accounts are kept in good bound books.

According to his official declaration, Mr MacFarlane sold in 1900 milch cows and other animals to the value of $\$ 726.25$. The proceeds from the milk taken to the factory- $50,241 \mathrm{ibs}$-were $\$ 372.70$, and from the milk and cream sold in the town ( 12,255 gallons of milk and 415 galls cream) $\$ 2,22117$. The farm expenses, apart from the family expenses, were only $\$ 150: 00$ We did not check these figures by the account books.

Mr. MacFarlane's agricultural speculation is the economical production in winter and summer of milk in abundance and of good quality, and his whole system of farming, as well as the keeping of his cattle, aims at this production : a sufficiently roomy stable, well lighted and aired, good water constantly before the cows, the latter well fed with corn ensilage, grain and hay; cultivation on a good scale of corn and clover, etc.

His success, like all his work, which marks him among his kind as a striking farmer, places him among the best in this competition and procures him decoration of the silver medal.

## figures and references.

## Fig. 48.

Sketch of Mr. R. MacFarlane's 100 acre farm.
(a) Oats, 7 acres;
(b) Pasture, 8 acres;
(c) Ensilage corn, 7 acres ;
(c1) Green fodder, 1 acre;
(d) Wood, 4 acres;
(e) Meadow, 8 acres;
(f) Corn fodder, $4 \frac{3}{8}$ acres;
( $f 1$ ) Green fodder, 尃 acres ;
(g) Pasture, 6 acres ;
(h) Clover field, 6 acres;
(i) Meadow, 8 acres;
(j) Oats, 8 acres;
(k) Meadow, 9 acres;
(l) Meadow, 10 acres;
N.-B.-The portion leased establishes an equilibrium in the proportion of the different crops.

Fig. 49
Horizontal plan of Mr. MacFarlane's farm buildings, showing how the interior is laid out.
A. Sheds:
(a) Coach houses ;
(b) Tool house ;
(c) Store and ladder leading to grain loft over the three divisions mentioned ;
B. Barn :
(a) Apartment for vehicles;


Fig. 48


Fig 49
(bb) Grain ;
(cc) Threshing floors;
(d) Passage ;
C. Stable for cattle :
(a) Poultry house ;
(b) Apartment for pump;
D. Horse stables :
(a) Box-stalls;
(b) Harness room ;

## E Barn:

(a) Thrashing floor;
(bb) Silo;
F. Stable for calves ;
G. Ice-House.

Fig. 50 (plate 7).
View of a group of cows and of a portion of Mr. MacFarlane's buildings, from the west.

Mr. ONESIME DEMERS ( 83.02 points, bronze medal).
Mr. Demers lives a few miles east of the church of Ste. Martine. He has gained the name of a good and courageous worker by his intelligent work and the spirit of order, cleanliness and economy which is admired in all the details of his work, in the house and buildings as in every point of the farm, if exception be made of some parts of th fences which might be better. This is a very deserving quality and talent which many farmers do not possess to a sufficient degree and which incontestably contributes to the success of a man in agriculture, perhaps, more than in other conditions of life. As a result all the work is well done, everything is in its place, nothing is lying around, lost or deteriorated.

Mr. Demers' farm or rather farms enclose about 175 acres under cal-
tiration and are of a clayey and fertile soil capable of producing abundant crops of every kind of grain and hay.

This year's crop, on account of unfarorable temperature or of sowing when the earth was not in a sufficiently propitious state, was not as fine as in previous years, which has contributed towards placing Mr. Demers in the class of Great Merit, giving him the hope of winning the silver medal which he may carry off in another competition.

The land is suitably cleared of the stones which were fairly plentiful in some places. These stones have been used for making bridges, foundations for the barns, fords or solid crossings over streams. Mr. Demers has straightened several water courses and levelled hillocks, so as to gain stretches of good land for farming in the valley of a winding stream. He has also raised the ground all around his house to prevent water reaching the foundations and flooding the cellar in the spring. The house is comparatively small, unprovided with dependencies connected with it, but remored from the road about thirty feet, wonderfully clean, agreeably surrounded with flowers, with a pretty garden at the side $60 \times 80$, well filled with vegetables, very clean and tidy, containing in addition 20 to 30 fruit trees and sirtp currant and gooseberry bushes, proving to her praise that Mrs. Demers possesses the same economical virtues, perhaps even to a higher degree than her worthy husband. She manages her work so as to have time to weave stuffs which win prizes at the county exhibitions.

We have no instructive particulars to point out in the other buildings.

The stock as a whole, might be better, especially the cows.

We found fifteen cows, five heifers, five calves, one grade Canadian bull, in all, twenty six head; twenty five cross-bred Leicester sheep, ten being old; six good working horses, one being an excellent mare in foal and two colts, and several pigs.

Mr. Théodore bourdon, Ste. Phlomene, (82 55 pts , bronze medal.)

Mr , Bourdon's farm measures 140 acres, all under cultivalion, 5 being an orchard. The lower part of the farm near the river is slighty broken but of exoellent quality and eminently suited for growing fruit. Indeed Mr. Bourdon does well in this respact by miking a fine large orchard upon a height well suited for such cultivation; a larg n number of the trees are still young but good and well looked after. This is one of the best and largest orchards we have visited during this competition.

The remainder of the farm, apart from some pieces in the upper part, is of second quality and largely of sandy soil.

Mr. Bourdon, who is still a young man, educated and seeming to understand the business of farming well, has effected improvements on his farm which greatly increase the output and which if continued gradually with care will make it an excellent farm from one end to the other. He has drained several acres, straightened several water courses, lowered the banks of ditches, improved sandy places with clayey soll. He has planted twenty fruit trees. He has moreover taken advantage of an excellent spring at the lower end of his land.

Mr. Bourdon says he follows the following rotation: 1st year, oats or mixed grain ; 2nd year, corn, potatoes or buckwheat mauured; 3rd year, wheat, barley or oats; 4th year, clover ; 5th year, meadow ; 6th year, partly in meadow, partly in pasture; 7th and 8th years, pasture. He manures a plot every year at the rate of 20 to 25 loads to the acre.

Slock - The herd of cows numbering 19 are of grade Canadian, of which 6 head including the bull are registered. It is a good milk herd. When the farm, was inspected the 13th July, Mr Bourdon had realized from his cows $\$ 3.11$ per head in a fortuight, and he was taking 550 ths of milk a day to the factory. The horses and swine are also of good quality.

The pastures include several fields and the meadows are never ased as pastures in the fall.

The farm work is well-done, and the crops were all good, which proves that Mr . Bourdon is applying himself to realize all the revenue possible from his land. But the extent of his farm seemed to us too large to be worked with evtry possible economical skill, through lack of sufficient labor. (See table of points for details of merit.)

## COUNTY OF ST. JOHR'S.

This beautiful county which contains so many good and well to do farmers had only two competitors, both in the parish of l'Acadie: Messris Eustache Roy aud Levi Toupin.

## Mr. EUSTACHE ROY (85.15 pts. silver medal.)

The farm examined by the Commission was 183 acres in superficies, 70 being in grain, $\frac{1}{2}$ acre in hoed crops, 60 acres in meadow, 52 acres in pasture, and about 1 acre of orchard and garden.

The soil is excellent and fertile, being a crumbly loam, suitable for hay and wheat, real clover ground, even and free from rocks; it is a speaimen of the fine lands of the prorince, which seem inexhaustible.

Mr. Roy, a large land-owner and an extensive grower of grain and hay, possesses in this fertile region, in addition to the farm on which he resides, several other farms which we did not think it worth while visiting.

The system adopted by him seems exhausting, but the land does not seem to suffer because the crop this year is good.

According to his own figures, Mr. Roy sold in 1900, 1840 bushels of grain, 75 tons of hay and 10 tons of straw ; 17 cows brought him $\$ 38.00$ a head; he sold for $\$ 150.00$ worth of poultry and eggs, $\$ 100.00$ worth of pigs and $\$ 200.00$ of horned cattle. The amount realized from the sales was $\$ 2,616.00 ; \$ 1,520.00$ of which represents the value of a part of the fertility of the soils carried away in the form of grain, hay, and straw, etc., and not returned in the shape of manure.

Mr. Roy every year ploughs up twenty acres of meadow and thirty acres of pasture. The longest period in meadow and pasture is three years. He sows twice before turning his fields back into pasture. Thus, the eight years rotation holds grood. He makes several acres of fallow and manure, 10 to 12 acres a year. The manure is applied to the vegetables and spread over the meadows. It is by means of the fallow land or summer ploughing, that Mr. Roy prevents weeds from getting into his grain and meadows.

We noticed at Mr. Roy's an agricultural phenomenon which is an accidental demonstration of a scientific fact and a lesson to farmers. This consisted of rows of oats sown along ditches, after a crop of peas, which were yielding in straw and grain 25 to $30 \%$ more than the rest of the ground under cultivation after a crop of cereals. Mr Roy sows his peas along his ditches, because the ground is not so rich a soil as further away, and the peas do not grow so much to stalk and yield a better crop. We called Mr. Roy's attention to this phenomenon and gare him the following explanation: Peas grow better along a ditch because the earth from the digging and cleaning out of these ditches is richer in mineral elements which the peas require in greater proportion than oats, while dispensing with the nitrogen in the soil, and the latter grows better after the peas, because these have left the soil richer in nitrogen than a crop of oats, which plant cannot give good returns without nitrogen, its principal nourishment and which it draws from the soil. From this, Mr. Roy was able to conclude that by ploughing deep, he would obtain good crops of peas after which he would have better oat crops, and then hay in greater quantity.

The farm work is very good; ridges wide and straight; furrows clean ; drains and ditches well made and well kept, etc.

The artist employed by the Commission could not come to Mr. Roy's to photograph his establishment, which however does not afford anything instructive for the public. All Mr. Roy's best points could not be illustrated by pictures.

The house is very good and considered No 1 for the purposes of the
competition : it is comfortable, well finished, covered in tin and provided with a balcony. A small flower garden adorns the front. All the other buildings are good and apart from one barn are all covered in sheet-iron.

The implements are good.
The cattle are not equal to the qualities of the soil. We found 9 working horses, one being a mare in foal and a stallion, three poung horses and a foal; thirteen milch cows and a grade Durham bull, three heifers and six oxen, apart from pigs and sheep.

Altogether Mr Roy obtained 85.15 with the honor of wearing the silver medal.

Mr. LEVI TOUPIN (85 pts., silver medal).
Resideuce, near the village of l'Acadie, on the little Montreal river.
Mr. Toupin's farm contains 114 acres, nearly all under cultivation. This land was formerly considered inferior on account of its very clayey composition and the small quantity of humus in the ground and the difficulty of working it. However, the land is of good mineral composition. Mr. Toupin has the merit of having made of it a good farmproducing all kinds of grain, peas, clov r, timothy etc. It is well drained and well cultivated and in gocu order, and this year's crop also is good throughout. The division, however, is not as perfect as with "other competitors and the system followed is not absolutely perfect, theoretically at least. The fields are not sufficiently regular. From our point of riew, the animal stock were not numerous nor the pastures large enough and here, as with a very large number of the farmers of the district, the growing of hay for the market seems to be the basis of the system. The quality of the farm work, however, and the natural richness of the soil in elements of fertility seem to support Mr Toupin against the scientific principles of agronomy.

The rotation given hereunder is indeed good:

1st. Year, hoed crops manured, regetables, peas, buckwheat or green fodder;

2nd. year, oats or barley with fodder grain ;
3rd and 4th years, meadow ;
5 th and 6th years, pasture.
It is a six years' rotation with manuring every twelve years, as the proprietor is unable to manure the sixth part of his farm erery year.

There is no road on the farm ; however, it is a fine one well situated, which, with little cost, could equal or surpass even the finest of those whose plans we publish

The buildings do not offer anything sufficiently instructive to deserve public attention. They are fairly numerous and comfortable for the cattle.

The house (see. fig. 51, pl. 7), still new, is very well built and very comfortable, and provided with every improvement to be met with among well-to-do farmers.

The ground improvements made by Mr. Toupin on his farm, consist of some stone clearing work, of the improvement of water-courses and levelling of certain uneven parts. Mr. Toupin has also tried chemical fertilizers from which he has obtained instructive results; he has also planted twenty forest trees to embellish his property.

The orchard contains twenty-fire to thirty trees and the garden, which is good, contains a certain number of small fruit bushes.

Mr. Toupin is a well-to-do farmer who has prospered and is of real worth as such, leaving aside his other qualities. Therefore the Commission is pleased that he was able to obtain enough points to win the silver medal as evidence of his merit and success.

FIG. 51. (Plate 7).
View of Mr. Levi Toupin's house from the East.

## COUNTY OF IBERVILLE.

This fine county, likes its worthy neigbor to the west, is distinguished for the most fertile hay and grain lands in the province and for the wealth of its inhabitants. The dairy industry has made wonderful progress and we find there the largest and best fitted butter factories of the province. The improvement of stock has adranced, but thanks to the intelligence and adranced spirit of the inhabitants it will continue to make great strides in order to reach the degree of perfection that can be attained consistently with the greatest profits.

The three competitors from this county are Messrs. Ls, Nadeau, of St. Athanase, Sifroy Fortin, of St. Georges de Henryville and J. A. Benoit of St. Grégoire.

## Mr. LOUIS A. NAI)EAU (75.05 pts, bronze medal.)

The farm put into the competition by Mr . Nadeau is 100 acres, 97 being cultivated and 3 in standing timber. It consists of separate lots, which made Mr. Nadean's position less advantageous that that of most of the competitors.

The soil on these farms is of good composition and can well repay the good tarm work and drainage, that Mr. Nadeau has already done. He understands his basiness, his labors are well calculated, but he needs manual help to carry out his plans for all the improvements which his land and crops require to yield a maximum return.

The best points taken by Mr. Nadeau are for improvements to the soil and the good condition of his fences. He has done good work in stone clearing ; the large stones have been usedfor fences, and a hundred loads of the small ones, for raising an acre of the front road. A large portion of the earth thrown out of the ditches has been carried away and spread orer the lower parts. He has filled in useless trenches and straightened ditches. His drainage work is good on the whole. Mr. Nadeau grows a small quantity of roots for fodder, amongst other things carrots for his
milch cows in winter, as well as a few acres of corn. The crop was not fine everywhere, but $\frac{3}{5}$ of an acre of carrots, 15 acres of hay and 11 acres of pasture obtained the maximum number of points.

Mr. Nadeau uses earth to absorb the urine from the hog and increase the quantity of this manure. The manure from all the farm animals is mixed together and carted during the winter into heaps of five double loads. After the sowing, it is spread over the last ploughed pasture and ploughed in lightly, then the field is sowed in buckwheat or lentils. The next year, after deep ploughing, the land bears hoed crops. The liquid manure is collected in tanks under the stables, then carted to the fields in, June. The manure should, for the sake of the hay crop, in our opinion be applied at the commencement of May or thereabout.

There is no use to dilate upon the other details of the farm, which, without being inferior to what is seen among most farmers, does not however show anything remarkably superior.

## Mr. SIFROY FORTIN (85-10 points, silver medal).

M.r. Fortin is a large laud owner, having 336 acres, 250 fit for cultiration, 86 woodland and 1 acre of orchard. All the fields ou this large farm border on the public road which raus through them. The dirisions are sufficiently numerous and fairly regular. The farm work is well done and all the fences around the fields as well as the water courses, ditches and trenches are in good order. The crops are very clean and abundant; seven plots obtained maximum points, and six others from 90 to $95 \%$. Mr. Fortin grows barley for his use and plenty of corn, which, in that part of the country, gives excellent returns.

As regards improvements to the soil done by Mr. Fortin, we can point out a considerable amount of stoue clearing, and the stones taken from the ground have been used mostly to pare a muddy road about 900 yards in length in a wood. He has 15 acres of half fallow, sowed in buckwheat.

With respect to food for the stock, we shall only mention Mr. Fortin's good habit of cutting up the fodder so as to make the mixtures required for a better food.

Figures 52 and 53 , plate 8 , show clearly enough the arrangement of Mr. Fortin's buildings, -amongst others, his grood and pretty house, his fine trees, which adorn the front of the property,-to allow us to dispense with deseriptive details. The farm buildings are numerous, fairly well built and comfortable enough for cattle.

Mr. Fortin has a carpenter's shop well supplied with tools, and his skill helps him to do work which saves him much expense.

The house, surrounded by a verandah and provided with good dependencies, kitchen, lıundry, dairy, wood shed, etc, contains a good cellar, divided into several compartments and well lighted, containing an oven and a cistern for water. The house has every modern improrement, and a beautiful flower garden adorns the front. It is one of the most attractive farm residences which we have visited on level ground.

We noticed among the implements, which are very complete and in good order, a sprayer on wheels, to spray potatoes, fruit trees, etc.

Let it suffice fur us to say now that Mr. Fortin incontestably deserves the silver medal for his success and his very great agricultural worth.

## FIGURES AND REFERENCES



FIG. 52
Plan of the respective positions of Mr. Sifroy Fortin's buildings.
(a) Road loading to St. George ;
(b) Front road along the river;
(cc) Garden, trees and flowers;
(dd) Garden and orchard (35 to 40 trees);
(e) House ;
(f) Kitchen;
(g) Summer kitchen and woodshed ;
(h) Dairy;
(i) Granary ;
(j) Coach house;
(k) General store house;

FIG. 53 (plate S)
View of the Mr. Sifroy Fortin's house, south gable and kitchen, from the public road and of the beautiful trees along it adorning the house and front of the farm. Mr. Fortin is leaning on the fence and his ploughing team is in front of the kitchen. Trees hide the house.

## Mr. J. A BENOIT (83 30 pts, bronze medal).

Mr. Benoit, who is an excellent dealer in hay, has a farm, near the village of St. Gregoire, of 96 acres, two being in timber. The soil is of a sandy clayey nature, in appearance cold, with a somewhat compact subsoil, requiring deep ploughing, good draining, organic fertilizers and perhaps lime. The lower part of the farm is loam, of a good quality, suited for hay.

The farm is cultivated according the old system, but Mr. Benoit has undertaken to change the system, and has made advantageous improvements, which show his ability. But as he has two kinds of business to look after, he sometimes sacrifices the farm when he does not wish to lose what he considers better.

Mr. Benoit has good buildings, barn and stables for which he has obtained the maximum number of points.

We noticed in his herd of Durham Ayrshires several good head. Mr. Benoit seems to be trying to form an excellent herd, for he has bought three good cows which cost him $\$ 15000$. The cows are in good condition. His five working horses and his three colts are excellent. In the winter, he feeds his cows with two meals of hay and one of straw a day, with a ration of ground grain and of bran mixed dry.


Fig. 53. S. Fortin's farm.- Ifouse and roand.


5+. 5t. A. H. Gilmour's farm- - Barn and statite.


Fig. 57. A. H. Gilmour's farm. Ensilage

He buys 500 tbs . of Thomas phosphate a year; the results are good, but manure is better. The latter is used partly on meadow after the hay is gathered and partly on the ground intended for hoed crops, in the fall ; it is then ploughed in with a second ploughing in the spring.

We could give other details which would not be disparaging to Mr. Benoit, but which would not afford any further information than what we have already said upon the same practices with respect to other competitors.

## MISSISQUOI COUNTY.

Missisquoi county has two distinct districts, the lower part and the upper part. The first which is relatively of small extent is more lerel and better suited for various crops: vegetables, grain, hay, etc. The other part, to the south east, is a hilly district, with charming landscapes, pretty and flourishing villages and beautiful farms. The soil, though light, is as a rule of a good composition and productive. This part is eminently suited for pastures and fruit growing. The dairy industry is highly developed and the breed of Jersey cattle, pure or grade, is very widespread.

The six competitors in this county are, in the western part, Messrs Alphonse Provost, of East Farnham, and Louis Rocheleau, of St. Pierre de Vérone, (Pike River) and, in the east part, Lt-Col. A. H. Gilmour, of Stanbridge East, Messrs T. R Harrey, of Frelighsburg, Holdeu \& Vincent, of St. Armand Centre, and John Butler, of Sweetsburg.

## Mr. ALPHONSE PROVOST (83.45 pts, bronze medal)

Mr. Provost's land contains 90 acres all good for culture.
As Mr. Provost is an able workman and a trustworthy man, he profits by the good wages the municipal conncil or local companies pay him for his services and leaves his farm to the care of a farmer. Howerer, he does not neglect impror ments; he grows hoed crops to improfe his land; he has done extensive work in stone clearing, using the stone for 1800
yards of fencing, foundations for buildings or bridges, revetments, entrances to barns, etc.

He makes his butter on the farm.
He owns a good house quite new, a fairly good young orchard of fifty trees, a plantation of pretty maples, two good barns and sufficient good stalls in one of them, which is $90 \times 30$ and contains threshing floors between the stalls, which facilitates feeding.

The herd of cows is numerous enough, fairly good and of Canadian breed, with à Jersey-Canadian bull.

In a word, Mr. Provost possesses the qualities of an advanced farmer and man of progress, but, as he is situated, he could not effect the improvement and perfecting of this farm required to obtain, according to the rules of the competition, the number of points necessary to the silver medal. This will be easy for him if he takes the trouble in another competition.

## Mr. LOUIS ROCHELEAU (80.01 pts., bronze medal).

Extent of farm : 160 acres; 110 acres under cultivation, 15 acres of natural pasture, 35 acres of wood-land. The farm is situated on the east bank of Pike River in the basin of Missisquoi Bay, partly flooded until June. A good basin of sandy-clay alluviam, $7 \frac{1}{2}$ acres wide, especially suited to the growth of hay which comes in good quality on the portion not submerged in the spring. The flooded part is in wood land and pasture where grass grows in abundance, but of an inferior quality, in the middle of the summer.

Mr. Rocheleau cultivates chiefly hay for the market and a fair quantity of cereals.

This low and damp locality is eminently favorable to the demelopment of flies harmful to the animals; it is probably for this reason that Mr. Rocheleau does not keep a numerous herd and loses grass.

Mr. Rocheleau lives in a first class house of the kind owned by many of the competitors.

The farm buildings are good, but do not offer any particular qualities which it would be advantageous to point out as examples for our countrymen.

The farm work is suitably well done.
The chief merit of the present competitor, as a farmor, in the eyes of his fellow citizens, is of having cleared 40 to 50 acres of land, of having drained his farm by over 30 acres of new drains; rebuilt in the last ten years all the old fences, without counting new fences he has put up, and of having thus, by his work, made for himself a good property which renders him prosperous.

If all the other details were of equal merit to that of the works just mentioned, M. Rocheleau would certainly have gained enough points to obtain the silver medal of Very Great Merit, which would perfectly agree with his intelligence and capacity, both as a farmer and as a citizen devoted to the public interest and enjoing the confidence and esteem of his fellow citizens. (See table of points).
LT.COL. A.-H. GILMOUR, (91.45 points)
(Competitor for the gold-medal).
We have here a large land-owner possessiug 1200 acres of land, who is at the same time a banker, president of a railway, an enlightened lorer of art, a large breeder and passionate lover of "Standard-bred" horses, owner of a race-course, etc. He is one of the largest landed proprietors and principal farmers of the Eastern Townships.

The property entered in the competition comprises several contiguous lots of a total extent of 440 acres, 390 being under cultivation, the remain der in permanent pasture and wood-land.

This beautiful farm, situated near Riceburg, bears the seigniorial name of "Manor Stock Farm " and is at present directed by Mr. ArthurE. Bell.

It is agreably situated on a pretty plateau of fine sandy-clay soil, orerlooking the valley of Pike Rirer, which flows through the village of Riceburg.

We do not intend to give a complete report of the large farm, which must have been dune by the Commission of the last competition in the region.

The principal adornment of this farm is the large barn and stable of which we give an engraring and dimensions, which will dispense with our saying more about them, and the numerous trotting horses "Standard Bred", of which figure 58, plate 9, shows some specimens.

The cattle are: 60 cows, grade Ayrshires Durhams, Jerseys: 41 heifers, 3 bulls, 12 calves, 12 Leicester-Southdown sheep, 21 pigs, 8 working horses, 4 light horses (Standard bred), 4 three years old colts, 3 two years old, 5 one year old, 9 mares in foal and 6 untweaned foals, apart from two stallions and a group of other horses, all thoroughbred (Standard bred), kept in the colonel's stables at Stanbridge East, and on another pasture farm. These horses are of good pedigree, several have -excellent records and are worth prices of which specialists alone can judge.

Mr. Bell, the superintendent of the farm, grows about 27 acres of hoed crops, of which 23 are in corn for fodder.

Mr. Gilmour has a sugary of 750 trees, which is provided with an improved evaporator.

On the farm there are 3000 yards of tile drains and great improvements in the way of stone clearing.

Mr. Bell uses 2 tons of Victor fertilizer on the meadows. The results are found satisfactory.

Not to say more, Lt. Col. Gilmour's farm is one of the finest properties in the Eastern Townships, and had it not been for uncontrollable cir-
cumstances which have hindered perfection in several details, the agricultural merit (according to the programme) of the competitor would have been several points higher. However, we can state that the work in question has not gone backward : on the contrary, noticeable improrements have been effected since the last competition.

The following figures and references and the table of points complete the useful information that we are able to give.

## FIGURES AND REFERENCES <br> FIG. 54 (piate 8).

View of Col. A. H. Gilmour's barn and stable (Manor Stock Farm), rorth front showing entrances, doors and gangways, with a load of corn carried to the ccra cutter in operation and the octagonal silo (fig. 56).


FIG. 55
Horizontal plan of the cow stalls in the basement of the barn;
(aa) Passages at the animal's heads,
(bb) Passage in the rear ;
(cc) Double stalls;
(dd) Box-stalls ;
(ee) Box-stalls with iron doors;
(ff) Cross passages ;
(g) Stairs leading to upper stories, in the barn proper ;
(h) Water pump worked by wind mill ;


FIG. 56
Ground plan of the barn or upper story :
(a) Shed on a level with stable, divided into three apartments for cattle;
(bb) Gangwáys and entrances to barn :
(cc) Threshing floors;




Fig. 59. Ifolden $\mathbb{E}$ Vincent's farm.


Fig. 62. IIolden $\mathbb{E}$ Vincent's farm.-Cows in stable.
(d) Threshing room used for storing the implements and cutting the corn intended for the silo.
(ee) Hay lofts;
(f) Octagonal silo newly constructed;
(g) Stairs leading to the wind-mill tower.

Fig. 57 (plate 8).
View of corn ensilage on Colonel Gilmour's Manor Stock Farm, and of some of his servants at work.-Ohio two horse machine,-variety of Cuban (riant corn, large cobs of bright grain of 16 to 22 rows, stalks 10 to 12 feet in height.

Fig. 58 (Plate 9).
Group of horses Standard bred, amongst which are the trotting mare "Lady Onward" having a record of $2.27 \frac{1}{2}$ at 4 years ; "Helena Duplex " having a record of $2.8 \frac{1}{2}$, "at 5 years.

## Mr. T. R. HARVAY (85.15 points, silver medal).

Extent of ground: 100 acres-Area under cultiration: 67 acres; pasture not fit for ploughing : 33 acres: Land hilly, exposed to the north, rocky in places but of a good composition and of grood quality; excellent soil for orchards and small fruits, suited also for all other crops.
|ndul
The whole portion of this farm capable of cultivation,is drained, the largest portion of the drains is made of stones taken from the surface. of the ground and a portion of wood. There are also fifteen hundred yards of stone fence drained underneath.

The system of cultivation followed is good and constitutes intelligent farming under the circumstances.

Mr. Harvay applies manure to the hoed crops and meadows immediately after harvesting the hay. The fields are in good order and the crop is fairly good : 8 acres of hoed crops, 4 being corn for ensilage, earned the maximum points. Mr. Harvay applies himself to growing the latter crops well in order to obtain greater returns and the most improring effect possible.

A good orchard of 3 acres, a fruit and kitchen garden of about $\frac{1}{4}$ acre and several forest trees embellish the farm and increase its value.

Buildings.-House somewhat old in appearance from the outside, 60 x 26, part brick, part stone, but good, well divided and very well furnished, offering all the comfort wished for in a good farm house.

The other farm buildings have nothing superior on the whole to what has been pointed out for other competitors. The barns and stables are in the same building, measuring 52 feet in length by 42 in width, and 24 in height. The barn is built on the side of a hill. Like a great many other barns built on this plan in the east, above the stables there is a threshing floor or middle space below the upper threshing flour, through which the grain and fodder are brought in. The stable has double stalls and the method of tethering is by ordinary chains. Clear water from a spring constantly flows in.a trough The bottom of the mangers is paved in brick laid with cement, which we consider a good plan. It is well ventilated and lighted and the alleys in front and in rear of the cattle are wide. Bat there is the drawback of using barrows for clearing out.

A wooden silo presenting no noteworthy feature stands in rear of the stable with which it communicates. A bridge of stone and wood leads from the top of the hill to the upper threshing floor of the barn.

We obserred a grain shed with a rat proof drier for Indian corn. The latter, in particular, is pared in brick and has wire gratings There is a spout under each grain compartment, allowing the grain to drop down from above wheu necessary. The implements are kept in the basement of this building which is probably the best of the kind we have seen.

The piggery, which is spacious, is under the rehicle shed and commun* icates with a large compartment built of stone in which the food for the swine is prepared; a spring of clear water flows constantly in this compartment.

There is another piggery under the stable where the horse dung is mixed with that of the swine. This is a praiseworthy practice, for it contributes to the improvement of both manures, one by the other. By this process Mr. Harvay gets plenty of good manure which enables him to thoroughly fertilize his meadows and fields of Indian corn. We found on this farm the best solution of the problem of preparing and treating manure.

Amongst the implements which are sufficient in number, we observed a double mould-board plough with a seat, which certainly has the advantage of making the driver's work less fatiguing.

Stock.-At the date of our visit we found six good draught horses, a fairly good herd of Jerseys, thoroughbred and grade, some grade Ayrshires and some head of grade Durhams; 26 milch cows, 1 ball, 10 heifers and 6 calves. We found 24 swine in the piggery mostly pure Berkshires and some pure White Chesters. Mr. Harvay had sold a good many previous to our visit. He is a remarkable breeder and feeder of hogs and seems to make it pay best when roots and farinaceous vegetables are plentiful and cheap. He also raises a good many Plymouth fowl.

Food of Swine.-Boiled roots and ground grain mixed with skim-milk. In summer skim-milk and dry ground grain dropped on the surface of the milk.

Food of Cows.-Mr. Harvay gives grain to his cows all the year round. When dry they get two quarts of bran twice a day; after calving 2 quarts of Indian corn and oats ground together and two quarts of bran also twice a day.

The manure is hauled in winter and piled in heaps on the field to be used in the spring. Besides the hoed crops Mr. Harray gives a topdressing of manure to 10 or 12 acres of meadow every year. He also uses some bushels of ashes and a ton of chemical fertilizers on the regetables. Ashes are chiefly used in the orchard and fruit garden. His crops also get a good dressing of manure.

In connection with his system of farming which consists in keepi ng a large herd of cattle and swine, in collecting large quantities of manure and in growing coarse fodder, Mr. Harvay buys bran, ground grain, and even straw.

The statement he gives in his application shows his operations for the year 1900-1901, from July to July :

Receipts.
127 fat hogs and others

$\$ 176628$
Cash from creamery ..... $\$ 109560$
Value of skim-milk for calves ..... 4200
Total from dairy ..... 113760
Total from cow-stables and piggery $\$ 290388$
Less cost of fodder purchased :
Bran ..... \$102 00
Oats ..... 6000
Ground grain ..... 4000
Shorts, \&c ..... 5700
Indian corn ..... 10000
Indian corn meal ..... 2500
Straw ..... 5400 ..... 43800Balance$\$ 246588$

Had it not been for the bad weather which prevented the artist attached to the Commission from going to Mr. Harvay's, we should have had the satisfaction of publishing an interesting view of his pretty and picturesque farm. Nevertheless we think we have indicated the best points of this competitor and we are happy to say that he has obtained the silver medal and to acknowledge him as a worthy laureate in this competition.

MESSRS. HOLDEN \& VINCENT, 86.30 points, sllver medal).

Messrs. Holden \& Vincent's farm contains 317 acres of land: 6.5 being ploughed, 130 in unploughed pasture and 120 in wood-land. The cultirated portion is situated on the upper south western and north western slope of a hill and the soil is a sandy clay, apparently very fertile. It is excellent soil for fruit, Indian corn and vegetables. The owners of this farm have striven to take advantage of the properties of the soil and climate to add to the crops generally raised for the production of milk and pork; a horticultural department of rather considerable extent, comprising a great variety of plants and divided into three parts: orchards, small fruit or fruit garden and kitchen garden

All these tend to demonstrate Mr. Vincent's horticultaral talent but the lack of laborers and illness have prevented him from keeping all his crops in perfect condition. Apart from this the general system of farming is pretty much the same as Mr. Harvay's: a large herd of Jerseys and grade Jerseys; many swine (33) ; a large area of hoed crops (11 acres) 10 being in Indian corn, perfectly cultivated and deserving $100 \%$ of the points with 3 acres of wheat and $2 \frac{1}{2}$ of oats.

Like Mr. Harvay, Messrs. Holden and Vincent buy bran, cotton seed, meal and other concentrated foods and they sell butter, eggs, poultry, hogs, vegetables, fruit, \&c.

They make plenty of manure by mixing the horse duug with that of the swine, carrying the former to the piggery.

The manure is carted in wirter to the fields to be spread on wheat and oats at seed-time in the spring. For the hoed crops from $1 \frac{1}{2}$ to 3 tons of composite chemital fertilizers are used apart from the potatoes which are manured with a compost made up of fowl dung, ashes, lime, salt and plaster. There is no doubt that these fertilizers are good for the potatoes, but by mixing in adrance lime and unleached ashes with fowl dung causes a loss of ammonia or nitrogen and the manure acts chielly through
its mineral elements. It would be better to mix these things at the moment they are to be used.

The orchard is manured with cow-dung but we were not told the reason for this.

The frnit in the garden is manured with horse and cow-dung, ashes and commercial fertilizers.

The tillage and drainage work were found good.
The farm is drained throughout ; there are 350 perches of stone drains: and 80 perches of stone fences. The stones remored from the soil are also used for foundations and embanking, etc.

At the time of our visit there were on the farm 36 cows, 16 heifers, 3 bulls and 5 calres. All these are thoroughbred and grade Jerseys; 17 Shropshire sheep, crossed ; 33 good swine; 5 draught horses and a good and numerous flock of white Plymouth Rock fowl.

Last year, Messrs Holden \& Vincent were compelled to slaughter 55 head of Jersey cattle which were suffering from tuberculosis and in order to make up their herd were obliged to purchase cattle inferior to those they previously had.

In 1895 their old herd had yielded $272 \frac{1}{2}$ lbs of butter per cow.
Food of Swine :-After weaning. sweet skim milk with bran and meal ; at the age of 4 to 5 months an equal quantity of Indian corn meal is added.

Fiod of Cows:-The cows are wintered on good hay ; about a month before calving they are given from 2 to 4 quarts of wheat bran; after calving 3 quarts of bran, 1 quart of Indian corn meal and half a pint of cotton seed twice a day. On the first of July they begin to get bran and Indian corn meal and cotton seed and on the first of August, green Indian corn with mealy substances and this is kept up as long as they give milk.

Buildings:-First class house, water supply, sink, cemented creamery, hand centrifrigal, good plant, \&c., \&c. Barn and stable first class (see fig. 60) with aqueduct and water-tap, \&c. The piggery obtained the maximum number of points.

The sugary contains 1300 maples and an evaporator from Reynolds of Frelighsburg.

All the other buildings, without being absolutely perfect from an architectural and economical point of view, are sufficiently numerous, good and comfortable.

The principal orchard contains about 150 good trees in full bearing There is also a young orchard whose trees do not bear vet.

The kitchen garden coutains a great variety of vegetables for home consumption and for the market. The fruit garden contains vines, several kinds of currant and gooseberry bushes, asparagus, strawberries, raspberries, blackberries, \&c., \&c.

On the whole, Messrs Holden \& Vincent belong to the class of advanced and enterprising farmers who know how to derive every benefit from the natural richness of their soil and the adrantages of the site of their farm. They have earned enough points to obtain the silver medal.

## FIGURES AND REFERENCES.

## FIG. 59 (Plate 9)

General view of Messrs Holden \& Vincent's farm taken at a distance, on the north west, from a hill on the road leading to Cook's Corner. A valley extends from the hill on which the farm stands and that from which the view is taken.


FIG. 60.
Horizontal plan of Messrs Holden \& Vincent's cow-stable :
(a) Central alley 5 ' feet wide ;
(b) Concave space for manure (See a fig. 61) :
(cc) Fodder traps:
(dd) Double stalls;
(ee) Spouts for grain and meal ;
(ff) Ventilators.
FIG. 61.
Section of a stall in the above stable, half the width of the building:
(a) Concave space for manure ; (1)
(b) Deal serving as the front of a manger (there is no manger properly so called);
(c) Trough made of deals bolted to post of frame-work ;
(d) Half width of central alley ;
(ee) Pavement in cemented concrete ;

Fig 61

## (f) Stone foundation.

(1) The fact of the manure remaining for several days in winter in rear of the cattle $i_{n} a$ helps to diminish the labor of cleaning the stable, but we do not consider this a good practice from a hygienic standpoint as regards the health of the animals. Who knows whether the tuberculosis that caused such dire ravages in their herd was not promoted by this?

$$
\text { FIG. } 62 \text { (Plate 9) }
$$

View of a portion of Messrs Holden \& Vincent's herd, near the stab'e at the milking hour. The herd consists of thoroughbred and grade Jerseys.

## Mr JOHN BUTLER (91.40 pts silver medal.)

Mr. Butler was born on the farm, which he entered in the competition. He has improved it in every way by draining, stoning, levelling, fencing in stone and iron wire, the erection of buildings, including the fine barn-stable which constitutes its chief ornament and of which we publish a picture (fig. 65, pl. 11), and the planting of fruit and forest trees, which, in summer, impart to his farm the appearance of a hermitage buried in verdure. The area of the farm is 260 acres, of which 120 are under tillage, 80 in unploughed pasture and 60 in bush. The orchard covers about 2 acres. The land, which slopes towards the north west, is of good quality, although lacking in depth in some spots and somewhat springy in others. The effective drainage works and the fine cropping, however, enable Mr. Butler to derive a good income from his farm.

System.-As under analogous conditions elsewhere, a system on a fodder basis with the keeping of dairy cows, is followed by Mr. Butler and seemed to us to be good.

The principal fences in wire and stone, especially along the avenue leading to the farm, are thoroughly well made.

The dwelling house is well located and provided with all the comfort desirable (See fig. 64 pl .10 ).

The stable and barn are a model of their class (See fig 65 pl .11 ). All
the other buildings shown (fig 63) are well covered with first class materials and in good condition.

The stock of implements is complete and good.
The manures are all well employed.
Perfect order reigns in all the departments. The works of improvement to the soil consist especially in 450 perches of well built stone feucing, in ditches carrying off the waters of the springs at the foot of the hills, covered drains, levelling \&c., which cost many months of labor.

The sugary, most of which is in the vicinity of the house, and includ. ing other groves situated a little further on, contains 1700 maples and is worked skillfully and intelligently. It is provided with a building of $30^{\prime} \times 20^{\prime}$ and a brick furnace, with evaporator. The sap collected from the maples in barrels is discharged into a reservoir by means of pipes.

The maples are large, sound and thick.
Mr. Butler has recourse to green manuring, ploughing in buckwheat and clover.

He has obtained good results from this, but he prefers the Bradley phosphate, of which he uses a couple of tons a year applied to the Indian corn and potatoes and sometimes to the meadows. He finds the use of this fertilizer profitable.

The forest tree plantations comprise one hundred fine maples, elms \&c., along the avenue and around the house.

This farm has the adrantage of being supplied more than many others with excellent and abundant springs of good water, which has facilitated the laying down of an aqueduct to the house and yards.

Stock.-Grade Ayrshires, 27 milch cows; 1 grade and 1 thoroughbred bull, 13 heifers, 4 calves and 3 oxen.

The pigs to the number of 15 are Chester White, thoroughbred and very good.

The cropping was good and all the grains and vegetables were clean.

The Indian corn especially, to the extent of 8 acres, and the potatoes (1 acre) were admirably well cultivated.

The rows of the Indian corn, 8 rowed yellow variety, were spaced at $3 \frac{7}{2}$ feet. The yield, according to a report, since received, has been heary and the quality superb. We also remarked 2 acres of very fine wheat, besides 3 acres of barley and 8 acres of oats, which merited 100 in 100 points. The orchard, containing 170 grafted trees, was bearing a good crop for the year. The characteristic note, which our observations led us to emphasize in favor of Mr. Butler, involves his admirable spirit of order, his ingenuity and his agricultural ability. Everything is in its place and the whole is calculated to save time and labor.

The barn and waggon shed are supplied with pulleys and cables for lifting waggon boxes and bodies, which a child, alone and without exertion, can remove with the aid of these apparatus. Regarded as a whole, Mr. Butler's farm is comfortable, picturesque and attractive in every way, wherefore Mr. Butler had no difficulty and winning his $91.40 \%$ points, which will give him the satisfaction of being decorated with the silrer medal of agricultaral merit.

## FIGURES AND REFERENCES.

FIG. 63.
Plan of the installation and relative arranement of the buildings, orchard, etc., of Mr. J. Butler's farm.
(a) Tree-lined avenue debouching on the Sweetsburg road;
(b) Barn-stable (V. fig. 65, pl. II) ;
(c) Waggon and lumber shed $30 \times 24$;
( arn for hay, $30 \times 36$;
(e) Watering Place, (V. fig. 68) ;
f) House, main block, $26 \times 36$;

(g) Kitchen and
(h) Wood shed
(i) Piggery, $30 \times 26$ :
(j) Water closet:
(k) Brick ash house, covered ;
(l) Horse stables, workshop and feed-room ;
(m) Harness room $12 \times 12$;
( $n$ ) Grain shed, $12 \times 16$;
(o) Shed for tools etc., $25 \times 18$;
(p) Aqueduct ;
(q) Sugar house, $24 \times 36$ :
(rr) Maple bush ;
(s) Garden ;
( $t t$ ) Orchard;
(u) Forest trees and some apple trees.
N. B.-There is also a building not shown for smoking meats.

Fig. 64. (plate 10.)
View of the dwelling house (1), of the kitchen and wood shed (2), of the maples in front of the piggery (3), of the sugar house (4), of the brick ash house (5), of the stable (6), of the shed (7), of the aqueduct (8), and of the maple grove close by.

Fig. 65 (Plate 11).
View of Mr. Butler's barn-stable taken from the south-west.
Fig. 66
Horizontal plan of the stable under the barn :
(a) Centre passage of 12 feet.
(bb) Rear passage of 8 feet.
(cc) Double stalls.
(dd) Gutters.
(ee) Manure traps opening into the manure pit or cellar underneath.
( $f$ ) Open compartment under the entrance to the barn used as a shelter for animals or implements.



Fig. 66
(g) Lodging for animals and implements (S. fig. 65 (1) pl. 11.)
( $h$ ) Gangway in stone leading to the barn.
(ii) Fodder traps $4 \times 4$ in the ceiling and serving as ventilators conducting to the central æolian ventilator rising from the middle of the barn roof. (S. fig. 65 pl. 11).

Fig. 67
Section of a stall, half the width of Mr. J. Butler's stable :
(aa) Passages in rear of the stable.
(bb) Gutters.
(c) Dividing partition between each double stall.
(d) Board dividing the manger of each stall into two, so that each corr can feed separately.
(e) Plank in front of the manger (there is no rear-crib).
(f) Part boarded horizontally in front of the animals.
(g) Half-width of the centre passage at the head (there is no water trough, the cows drinking outside at the watering place shown in fig 68.

Fig. 68
Reservoir or watering-place in the farm yard holding about 1850 gallons of water fed from the aqueduct. Always full, never freezes in winter, even at temperature of $25^{\circ}$ below zero. Discharges through an underground drain. This reservoir was manufactured by the Nelson Buzzle establishment of Corwansville.

Fig 67


Fig. 65. J. Buther's farm. Barn and table


Fig. ig. J. Butler's farm. Herd of cows.


Fig. ;o. I: P. Ball's farm.-Buildings


Fig $f 8$
FIG. 69 (plate 11).
View of Mr Butler's herd of cows in a corner of the farm yard to the west of the dwelling house, the western gable of which can be seen.

## COUNTY OF STANSTEAD.

The county of Stanstead is regarded as the most interesting county in the Eastern Townships as well by reason of the wealth of its soil and of its inhabitants, as of the charms of its climate and scenery. The enchanting shores of Lakes Memphramagog and Massawippi are marked by numerons summer resorts which are frequented during the fine season by hundreds of rich families from the United States and Canada. These groups of floating population and the small manufacturing towns of the region constitute consuming centres which greatly benefit the farmers, who, thus, find a remunerative market at their doors. Consequently, the prevailing comfort and prosperity are manifest in the smiling aspect of the pretty, well built farm-houses and farms which are so abundantly met with in this county and in the fine roads bordered with agreeable plantations of maple trees and so constantly in use by the carriages of the many tourists.

The competitors in this county were Messrs Calvin Charles Manning, 21
of Magog, Erastus P. Ball, of Rock Island, (competitor for the gold medal) John Curtiss, of Stanstead ; J. V. Corliss, of Barnston (for the gold medal) J. Nelson Cushing, of Dixrille ; James Greer, Smith A. MacKay, of North Hatley, and Geo. W. Reburn, of Massawippi.

Mr. CALVIN CHARLES MANNING (5 miles south of the town of Magog on the west side of Lake Memphramagog.--77.85 pts, bronze medal.)

Area of the farm :-200 acres;-area under tillage, 60 acres ;-in unploughed pasture, 75 acres ;-in bush, 65 acres ;-in orchard, 2 acres ;in garden $100^{\prime} \times 40^{\prime}$.

Nuture of the soil:-In general sandy, a little more substantial and fertile on the plateaus, naturally covered with many silicious stones, land easily exhausted and requiring pretty frequent manuring.

Top-dressing the meadows with manure appears to be essential to prolong their duration and increase the yield of hay. The meadows which we visited were rather thin. The permanent pastures in the woods and the clearings were good enough and prorided in abundance with excellent water.

The tillage is sufficiently good. Mr. Manning applies his stable manure to the Indian corn and potatoes, putting it in the rows, and to the grain by mixing it with the soil. It seems to us that it would be better to spread it on the surface of the meadows during the first or second year of their formation, as is done with marked success by other competitors under analogous conditions. He uses 500 to 600 tts a year of chemical fertilizers with a basis of potassium coming from the United States; but he now prefers to make manure from his pigs to purchasing chemical fertilizers, the results of which are not sufficiently apparent. This is due, perhaps, to the fact that these fertilizers do not contain the elements of which the soil stands in need: humus and nitrogen and, may be also, phosphoric acid. The crops in general might be better; but the hoed crops were good.

Buildings.-The dwelling house is a fine large two story structure
elegantly built, with bay-windows, verandahs and good dependencies, cellar in two divisions, dairy \&c. It is well divided and furnished and supplied with all the necessary improvements. It more resembles a rich suburban villa than a farmer's house. Further, this fine dwelling has the advantage of being pleasantly located on the road which skirts the lake in one of the prettiest spots in the province, which is far from detracting from its value.

The barn, $28 \times 50$, like many others in the Eastern Townships, is high with a double upper transverse threshing floor and an intermediate space between them, with the stable underneath.

There is nothing noteworthy as regards the remainder and the other buildings. The garden is good in regetables. The orchard, containing 175 to 200 trees, not all of which are well pruned, and some of which are still young, did not come up to the maximum of points.

91 trees, 75 of which are maples, planted along the roadside constitute an improvement and a meritorious embellishment of the property.

Improvements to the soil.-Although there are still a good many heaps of stones in the fields, Mr. Manning nevertheless possesses the merit of having done enough stoning work to build 200 perches of stone fencing and 200 perches of stone drains, which work well.

As regards the book-keeping, Mrs. Manning claims that the accounts of the farm are kept as business people should keep them, but she was unable to exhibit her good book-keeping to the judges, who could see nothing but memoranda.

The herd of grade Durhams has no superior points which call for special mention. It comprises 21 cows, 8 heifers, 1 bull and 4 calves. There are also 3 pretty good working horses, 1 colt, and 22 good cross. bred pigs.

Mr. Manning is provided with a hand creamer and makes his own butter on the farm. He sells it at 20 cts per package of 1 lb . wrapped in parchment paper. He has a contract at this price for the whole season. The splendid fresh water from a never-failing spring greatly favors the manufacture of superior butter. Mr. Manning sold $\$ 510$ worth in 1900.

This competitor has the merit of laboring for the improventent of his property by clearing and the other works abore mentioned and, by this fact, for the increase of the real wealth of the country, which, for this service, owes to him, as to other workers in the agricultural field, a real debt. of gratitude.

Mr. ERASTUS P. BALL (94.60 pts. V. G. E. M.)

## (Class of Amateur Agriculturists)

Mr. Ball, being a practising veterinary surgeon, is not a professional farmer, but not less does he personally manage, with the science of an agriculturist and the skill of a practician who understands his business, his fine farm of 400 acres, on which he has his residence on the outskirts of the village of Rock Island. His dwelling is rather a seigniorial manor surrounded by a park than the abude of a farmer (. fig. 71 pl .12 ).

As regards the farm buildings, figure 70, plate 11 , sufficiently indicates that programme. There is a silo and the economical laying out of the interior is good. The barn stable, shown in figure 70 , pl. 11, measures $150 \times 53^{\prime} \mathrm{x}$ $22^{\prime}$ of post, with a longitudinal upper threshing floor and good horse and cow stables and piggery underneath. The stable is well lighted and contains numerous box-stalls, cows tethered to an improved moveable bar-separate cribs between each cow-manure and regetable cellars. In addition, there are waggon, implement wool and grain sheds, a wood working shop well fitted out with tools, etc.

The farm is a magnificent undulating domain situated between the Rock Island river and the international boundary line. The soil is light. but substantial and deep, only slightly rocky, fertile and easily drained, having a slope from north to west towards the river. It is maple and elm land.

A few small tracts somewhat low, are wet and require draining, which moreover is easy and relatively inexpensive at such points.

Of the 400 acres, there are only 200 ploughed. The other 200 acres. are half in permanent pastures and half in bush.

The system which appears to be essential on this farm and which is moreover followed by Mr . Ball is a mixed tillage, with cattle.

The division of the land under the circumstances is good, although all the fields are not divided by fences. The great extent of permanent pastures does not necessitate this division.

The crops as a whole were fine all over; the hoed crops, however, which are numerous-21 to 22 acres-and well laid out, might have been cleaner.

Mr. Ball, who owns a good silo of $14^{\prime} \times 32^{\prime}$ in height, with a cemented stone bottom, raises 17 acres of fodder Indian corn and several acres of roots ; beets, carrots, Swedish turnips \&c.

A large pasture on the hills, however, was scant on account of drought and age and would need harrowing and manuring.

Mr. Ball practises the following rotation :
1st year: Fodder Indian corn, oats, potatoes, beans, green fodders;
2nd year: Mixture of grains, wheat, barley, roots;
3rd year: Clover and timothy;
4th year : Clover and timothy ;
5th year: Timothy meadow;
We venture to observe that the roots would seem to us to be better placed on the first division instead of the oats.

The ploughing varies in depth from 6 to 8 inches.
Several fields are drained with stones, at least 420 yards in all.
The droppings from the cows and the horses are mixed together in the manure cellar, and then carted to the field where they are spread and turned under in the fall, as far as possible for the hoed crops. Mr. Ball
also lightly manures his meadows after the removal of the hay crop by adding several bushels of ashes to the acre. He states that he uses 150 bushels a year in this way.

He manures and ploughs twice in the fall the kitchen garden, which he again ploughs and harrows in the spring. Mr. Ball employs on 7 acres 400 ths of the Victor chemical fertilizer from Capelton, as a test, and claim that for his land this fertilizer is not equal to stable manure. He sometimes also does green manuring, such as ploughing in buckwheat.

Mr. Ball's book-keeping seemed complete as far as it could be for the needs of his operations ; cash book, book of works, register of services, dairy book, ledger, etc.

The stock of implements is complete and good.
The land improvements consist in stoning, water-course making, levelling, \&c., \&c.

The forest plantations, which form a kind of handsome park before and around Mr. Ball's dwelling house, comprise several hundred fine trees.

Mr. Ball also works a sugary of 1000 maples with an improved evaporator.

The orchard is pretty large and well filled with fine young trees.
The kitchen garden is well filled. We shall not refer to the flowers and beautiful lawns that surround Mr. Ball's residence.

Stock-Horses: 1 stallion of trotting strain, with a 2.20 record; 4 brood mares, two of light and two of heary breeds ; 6 working Clyde horses; 3 colts of 3 years and 2 of 2 years old of light breed, 4 yearling colts, two light and two heavy, and one foal of light breed.

The Commission had ocular proof that Mr. Ball owns good horses.


Fig. 7I. E. I'. Ball's farm.-House and dependencies.


Fig. 73. Road to Stanstead Plain


Fig. -t. ぶ F Machay sfarm. House amb barn.

Horned Cattle. 4 bulls, 30 cowf, 20 yearling heifers, 10 calves, all of the pure Jersey breed, registered.

Pigs. One Berkshire boar, three White Chester sows and 15 young grade pigs.

If the number of pigs is not large compared with the extent of the farm, it is because Mr. Ball sells his milk. He sold, he says, $\$ 1500$ worth in 1900 .

Mr. Ball is at the head of the laureates of his class and, if he is a gen-tleman-farmer, he none the less carries on good practical agriculture and is not less useful to the country. Wherefore, we recommend that he be granted a diploma of Very Great Exceptional Merit.

## FIGURES AND REFERENCES.

## Fig. 70 (plate 11.)

View of Mr. E. P. Ball's farm-buildings, Rock Island, showing in the back ground of the picture on the opposite plateau the village of Stanstead Plain.

## Fig. 71 (plate 12.)

View of Mr. Ball's dwelling house and dependencies.
Fig. 72.
Arrangement of Mr. Ball's house and dependencies.
(a) House ;
(b) Kitchen and wood-shed ;
(c) Waggon shed ;
(d) Privies:
(e) Poultry house ;
( $f$ ) Horse stable, formed of box stalls for loose horses ;
(g) Coach-house ;
(h) Harness-room, etc.


Fig 72
Fig. 73 (plate 12.)
View of the Stanstead Plain road, bordered with rich groves of maple and orchards. charming villas and lawns decorated with flowers, etc. This road, which is very clean, very fine and well levelled, is slightly rounded off and provided with good lateral drains These handsome borders of the national trees are common in the Eastern Townships; Cowansville, Sweetsburg, Compton, East Hatley and other places are agreeably adorned by them. May it please God to generalize throughout the province this artistic taste for plantations and property embellishment: our charming country would further enbance its beauty and value thereby.

## MR. JOHN CURTIS (78.60 pts. bronze medal).

Extent: 320 acres; Under tillage: 165 acres; in unploughed pasture :
 perches.

System semi-pastoral ; dairy and beef cattle, sheep, pigs \&c. Little ploughed tillage : only 10 acres of a mixture of grains, 1 acre of green fodders; $2 \frac{1}{2}$ acres of fodder Indian corn; $3_{1}$ acre of potatoes; $\frac{1}{4}$ acre beets, $\frac{1}{2}$ acre turnips, $\frac{1}{2}$ acre Swedish turnips: all these crops merited the maximum of points, that is to say, they were very good.

The dwelling house, $30 \times 40$, is rery good and well provided with the economical conveniences seen on all good farms.

The other farm buildings are not first class, with the exception of a good, large, well-built shed, divided into four compartments for a workshop, dairy, waggons and lumber, \&c, with a grain loft overhead.

Among the plant, we noticed a weighing-machine of much utility to the competitor.

Stock. - We noted 23 horned cattle of the Durham breed, of which 12 are milch cows, besides 2 calves; 72 good sheep, of which 11 are tho-rough-bred Cotswolds and the others Shropshire cross-bred: 7 Chester White pigs of good quality and 5 horses.

Mr. Curtis seems to feed his stock well and to properly utilize their manure.

Besides the latter, he uses apon his root crops about a ton of Capelton superphosphate.

The garden is very good. Ten improved bee-hives show that the competitor does not orerlook the production of what calls for the least labor, for he lacks help.

He works a maple sugary of 1000 trees with an improved evaporator.
Mr. Curtis follows a good system of book-keeping for which he was awarded the total points.

He states in his official application that he bought in $1900 \$ 403.33$ worth of concentrated foods and sold animal products, including the outputs of his dairy, fruits, sugar and vegetables, to the value of nearl $\$ \$ 1150$. Apart from his family expenses, he would appear to hare laid ont only a sum of $\$ 125$ for the wants of the farm.

Mr. Curtis is now an old man. He was born on the farm, which he : still manages through his son, and which he improved in the course of
his life by some stoning and other work. Still his cultivated lot is not very rocky. The extensive system which he follows seems to be pretty rational and adapted to the competitor under the circumstances in which he finds himself placed.

## Mr. JOHN V. CORLISS ( 85.25 pts.) Competitor for the gold medal.

Extent of the farm ; 300 acres. Extent ploughed ; 150 acres; Permanent pastures: 100 acres; Bush: 50 acres; Orchard : 1 acre.

Handsome farm, well tilled, on a plateau of good light land, fairly level and comparatively free from rocks; well divided for a pretty regular rotation, provided with a good dwelling house and numerous and pretty good farm buildings. The baru-stable of $90^{\prime} \times 45^{\prime} \times 14^{\prime}$ square is the chief and best of the latter. A wood-working shop and a store house for fruit may be further noted. There is a sugary of 1500 trees and an evaporator-

The garden is not extraordinary ; it contains 17 improved bee-hives
The crop, without being maximum, was good.
Slock.-Five working horses, one stallion and one colt (Morgans and Percherons) ; 25 grade Hereford and Holstein cows, pretty good milkers and some very good, two heifers, ten calves, a good dairy herd, on the whole; a grade two years old bull, middling; twenty Chester White pigs; fifteen cross-bred sheep.

The figure of 13.25 points for his animals classes Mr Corliss among the strong competitors in this department.

The competitor aims especially at the production of milk for the factory and of pork for the market.

He has already resorted to green manuring with marked results and to commercial fertilizers, "Pacific Guano" for the oats, turnips, \&c., as a complement to the stable manure and he claims that the results have been paying.

All the pastures are permanent; The rotation followed seemed to us to be in reality the following: 1. Hoed crops and cereals; 3. Meadows for several years; 4. cereals.

Manuring by top dressing partly on the oats and partly on the meadows.

Mr. Corliss purchased his land some fifteen years ago at a cost of $\$ 1,500$ and has made improvements to the extent of about $\$ 2,000$, in fencing, buildings, stoning \&cc. At present, particular circumstances have led him to rent his property to a farmer, which, however, does not prevent him from overseeing its proper keeping and maintenance on a gool productive footing.

We refer to the table of points for the remainder and to the report on this farm made by the Commission at the last competition in this region.

Mr. SMITH A. MACKAY ( 80.75 pts, bronze medal).
Mr. Mackay is not a native of the locality in which he lives. He comes from St. Edouard de Napiersille and owns 190 acres of land, on which he can still only plough 60 acres, the rest being in bush and permanent pastures.

The soil is good and skillfully cultivated. The hay and hoed crops were good; seven pieces of these merited the maximum of points. There is a pretty large and good orchard and a good well kept little garden.

All the buildings and implements are those of a good farmer such as Mr. MacKay appears to be (V. fig. 7t, pl. 12).

The stock is pretty mumerous; 47 horned cattle, including 15 milch cows; 5 horses ( 3 working and 2 colts) and 13 pigs. The general quality of the horned cattle might be better ; there are, however, some good cows; but the mingling of Jersey, Durham, Hereford and Canadian blood is, perhaps, a rather confused crossing, which does not always assure the production of animals that are all excellent, either for beef or for milk.

Mr. MacKay produces milk, fattens oxen and hogs, grows potatoes and other vegetables for the local market, and works with skill a good sugary of 1500 maples supplied with a first class plant.

Mr. MacKay is a good experimentalist and makes useful tests of chemical fertilizers. He uses some hundreds of pounds yearly, especially on his potatoes.

In his two acre field of potatoes, Mr. Mackay had 15 to 20 well cultirated rarieties growing in order to endearor to carry off the prizes at a local competition for the greatest number of varieties, and the best, and also to ascertain which are the most profitable in all respects. As the crop of these potatoes seemed slightly phenomenal in the estimation of the Secretary of the Commission, he caused twelve varieties of them to be dug (in September) namely : 4 hills of $18^{\prime \prime} \times 36^{\prime \prime}$ occupying a total superficies of $6^{\prime} \times 3^{\prime}$ or $18^{\prime}$ square feet (the potatoes being grown in rows spaced at $3^{\prime}$ and in hills at a distance of 18 '). He separately weighed each specimen and took a note of the weight. The following was the result of his observations, (all the varieties observed being handsome and sound, with very few small potatoes among them).

| No | NAME OF THE VARIETY. |
| ---: | :---: | :---: | :---: | :---: |

Ten tubers, picked without special care, of the "Empire State" and


Mr. McKay plants small round potatoes and cuts in two those of the
size of an egg. He takes his seed potatoes out of the cellar early in the spring, spreads them in the light where the germs comraence to sprout large and sturdy and plants as soon as the ground is favorable. He manures his potatoes with 400 阮 of the "Victor" lirtilizer and 20 cart loads of stable dung to the acre applied at planting time.

Mr. McKay certainly practises the best method to get an abundance of good potatoes and those who also do so obtain the same results. If all who planted potatoes this year in good light soil had followed the same proceeding, potatoes would be plentiful instead of beingr scarce.

Mr. McKay also turns to particularly advantageous account a local circumstance by making maple sugar nearly all summer.

The numerous American tourists like to indulge in the amusement of pic-nics at Mr. MacKay's sugar house during the fine season. In the spring, Mr. MacKay confines himself to reducing his maple sap to syrup which he keeps carefully in order to convert it later on into candy and smail squares of sugar for Americans from the South, who purchase these products as much out of curiosity as in the light of a sourenir of Canada and this at a price which is very profitable to Mr. Mackay.

This detail, and especially the first, shows that Mr. Ma kay is an enterprising farmer, who understands how to make profit out of his farm and the advantages of his surroundings.

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\text { FIG. (b.c.) } 74 \text { (plate 12). }
$$

View of Mr. Smith A. Mackay's house and barn, North Hatley.

Mr. JAMES GREER (80.05 pts, bronze medal).
Mr. Greer, who is a new-comer in this region from the parish of St. Eustache, county of Two Mountains, has had the good luck to purchase at a moderate price, in the vicinity of Lake Massawippi, a good and handsome farm of 175 acres, of which 85 are under ploughed tillage.

This farm is not yet completely improved ; there are parts of it still needing stoning and draining which Mr. Greer proposes to carry out, but for which he has not yet had time.

As he is an excellent farmer, which is demonstrated by his good crops and his fine tillage, we have no doubt that in a few years he will succeed in making his farm one of the finest properties in the townships.

He owns a good large orchard, well stocked with fruits for the year, a well tended garden, pretty good farm buildings and a handsome dwelling house (V. fig. 75, pl. 13).

He has a fairly good herd of 30 horned cattle, young and old, grade Ayrshire-Durhams, and a dozen of pigs.

Although Mr. Greer has merited many good points, it would be tedious, as well as uninteresting to the public to go into fuller details of his works, which are not superior to those of other good competitors; but we are convinced that Mr. Greer will not have the slightest difficulty, if he strives to any extent between this and the next competition, in winning the silver medal to which his talents and his natural abilities as a farmer should entitle him.

> FIG. 75. (plate 13)

View of Mr. James Greer's house, North Hatley. Mr. Greer can be seen standing up near his kitcben and Mrs. Greer sitting down on the door-step.

Mr. GEO. W. REBURN (87.05 pts, silver medal.
Mr. Reburn is the son of the late Mr. W.A. Reburn, formerly, of Sainte-Anne-de-Bellevue, the great Jersey cattle breeder.

He owns a large, fine, good farm of 300 acres on the slope of a slightly inclined plateau near Lake Massawippi.

This farm was acquired for a sum far beneath its real value. The soil is of good quality, pretty well drained by good water courses and rather extensive drainage works. It also includes large thoroughly stoned


Fig. 75. J. Greer's farm.-House and dependencies.




Fig. 7S. G. W. Reburn's farm.-Jersey herd.
stretches, the stones being utilized for fencing. The crops are sufficiently numerous and well tilled. The output, though inferior co some others remarked elsewhere, is nevertheless good on the whole. The dwelliug house is first class, pleasantly situated, and the farm buildings are also first class. Figure 76, plate 13, gives an idea of the aspect of the farm and the buildings, which are its principal ornament. There are orchards, the quality of which is not superior, but Mr. Reburn has planted before his house a young orchard which promises well both for ornamental and bearing purposes.

Mr. Reburn cultirates the taste inherited from his father for Jersey cattle, of which he has a pretty numerous thoroughbred registered herd, among which we noticed a goodly number of beasts of apparently superior quality. Figure 78, pl. 13, shows some specimens taken on the pasture.

Mr. Reburn also owns a big flock of Shropshire sheep, 74 in all.
As Mr. Reburn has little help at his command, he follows a system which consists in the production of hay, grass, and thoroughbred animals for breeding, besides some beef cattle. He sends the milk of his cows to the neighboring factory.

Notwithstanding the herculean task which the profitable working of his fine property involves, Mr. Reburn manages to keep it in general good condition.

Figure 77 gives the plan and the different divisions of the farm and, with what we have said, these show that the Commission are far from having made a mistake in awarding to Mr . Reburn, for his farm and labors as a whole, the number of points which assures in his faror the pnblic recognition of his success as a farmer and a breeder.

## FIGURES AND REFERENCES

Ftg. 76. (plate 13)
General view of Mr. Geo. W. Reburn's farm, Massawippi.


Fig. 77.
Plan of Mr. Reburn's farm.
(a) Bush;
(c) Pasture ;
(d) Sugary (1300 trees).
(e) Bush, -15 acres.
(f) Grove;
(g) Pasture-2nd year ; the whole field-32 acres;
(h) Swamp ;
(i) Old orchard;
(j) Indian corn.
(k) Oats and lentils ;
(l) Green fodder ;
( $m$ ) Oats ;
(n) Barley and oats;
(o) New land, 8 acres;
(p) Meadow, 2nd year, 3 acres ;
(q) Oats and barley, 7 acres;
(r) Coarse pasture, 10 acres ;
(s) Public road;
( $t$ ) Meadow, 2nd year, 16 acres ;
(u) Clover, 1er year, ${ }^{3}$ acres ;
(v) Old pasture, 45 acres ;
(w) Natural pasture;
(x) Bush ;
(yy) Tile drains, 5 inches ;
(z) Meadows, 2nd year ;
(A) Old meadow ;
(B) Meadow, 3 years ;
(C) Meadow, 1 year;
(D) Meadow, 3 years, 38 acres ;
(E) Old pasture ;
(F) Sugary, 700 trees;
(G) Sugar-house ;
$(H)$ Cedar grove ;
(1) Dwelling-house $35^{\prime} \times 37^{\prime}$;
(2) Dependencies $25^{\prime} \times 28^{\prime}$;
(3) Poultry and tool house ;
(4) Grain shed $18^{\prime} \times 24^{\prime}$;
(5) Sheep-fold $30^{\prime} \times 30^{\prime}$;
(6) Barn $45^{\prime} \times 80^{\prime}$;
(7) Stable $19^{\prime} \times 80^{\prime}$;
(8) Hay barn $35^{\prime} \times 32^{\prime}$;
(9) " $28^{\prime} \times 28^{\prime}$;
(10) Old house 50 ' $\times 25^{\prime}$;
(11) Another old house $24^{\prime} \times 18^{\prime}$;
(VP) Orchards;
(Sh) Shedd's patent wire fences ;
Fig. 79 (plate 13.)
View of some of Mr. Reburn's Jersey herd taken in the pasture.
Fig. 79.
Road sign or guide, such as may be seen nearly everywhere at the intersections of roads in the counties of Stanstead and Missisquoi, and as there should be everywhere else in the province.

## Mr. J. NELSON CUSHING ( 67.35 pts. Diploma).

We have very little to say about the farm of this competitor, as the Commission were unable to meet a single person interested in its working. But here are the principal points which may be noted:


Fig 79. (See page 338)
The dwelling house appeared to be first class. The other farm buildings were rather in a state of disorder and some of them were in a com-
pletely ruinous condition. On the other hand, some of the fields of the farm seemed well tilled. There was a good orchard. The herd of Guernseys and grades included some good cattle. There were 17 good Chester White pigs. The butter is made on the farm. A ram supplies the motive power for the machinery that works the churn.

The Commission failed to discover any superior detail deserving to be brought as a model to the notice of other farmers.

## COUNTY OF COMPTON.

We shall not undertake any description of the county of Compton, whose reputation as an agricultural county has !been long established by the renown of its great agriculturists. Moreover, we were in this competition unable to visit more than the corner of the township of Clifton, which is still new and less advanced than the older and fine region watered by the Coaticook river. Still, the part that we visited and that is peopled, chicfly by French Canadians, has made very great progress within a certain number of years and we remarked therein some handsome farms and prosperous settlers, among,others the subject of the present report.

> Mr. SAM. DUMOULIN (St. Edwidge de Clifton).
(88.70 pts silver medal).

Mr. Dumoulin is one of the four valiant settlers whom we mentioned in the beginning of this report. He located as a squatter in 1861 on a half lot of 50 acres, for which he was able to pay only after six years. Later on, he acquired other parts of lots adjacent to his own. There was no road at the time and he had to carry his provisions and his stove on his back, a distance of 7 miles. He married at the age of 21 years, his wife being 20 years old. Armed with boundless courage, vigorous, full of hope and ambition, he started to clear the land, which was then entirely in forest. The wood was of little value at that period and, although
the maples were thick on his lot, he made little money and he had to live by working a little for others and upon the products from his own clearing.

Without counting large stretches in bush and pasture, he now owns. 70 ploughed acres of good fertile land, fenced and drained. The numerous stones which covered his lot have been utilized for drains and fences. Still, the drainage does not work to perfection everywhere and the construction of the fences might be better. Nevertheless, it is surprising that Mr. Dumoulin has, in the space of 30 years, been able to carry out such extensive works, without other help than his vigorous arms and the immediate product of the soil.

His farm is a little broken, but the soil is of good composition. All the crops succeed perfectly. The following obtained 100 per cent of the points:

8 acres of oats, $\frac{1}{2}$ acre potatoes, 3 acres Swedish turnips.
The house is first class. The farm buildings are very good and numerous and the stables are well built and comfortable. We might specify the barn-stable measuring $45^{\prime} \times 60^{\prime}$ of which (fig. 80) gives a linear sketch to show its style.

The system of mixed farming, on a fodder basis, with a herd of milch and beefcows, is very good and evidently the best that could be followed by Mr. Dumoulin under the circumstances.

The crops are very clean, and the divisions and fences good enough.
The manures are well employed on the hoed crops.
Besides stable manure, Mr. Dumoulin uses about 1 ton of Victor fertilizer every year on his Indian corn, Swedish turnip and potato crops and gets good results the refrom.

The buildings, implements and fields are in good order.
Mr. Dumoulin has planted 76 young mantes which in a few years will be an ornament to his property and make it the equal of the pretty farms in the older parts of the county.

Stock.-Mr. Dumoulin is one of the strong competitors in cattle. He
owns 1 pedigree Durham bull, 2 years old, 16 Durham•Ayrshire cows, good milkers, 6 two year old heifers and 1 yearling ox. 8 two year old oxen and 14 calves, 8 good Yorkshire pigs, nearly thoroughbred, 4 working horses and 1 stallion.

On the 21st June last (1901), Mr. Dumoulin had sold 12 oxen for $\$ 600$ Formerly, he sold his oxen at 5 years old and later at 4 years; now, he sells them at 3 years and they are as big as when he used to sell them at 4 years. He owes this increase of precocity to better feeding. He attributes this progress to ensilage and Swedish turnips; but the more abundant grass, containing more clover, must also have something to do with it. It is possible, however, for him to gain another year.

- Improvements to the soil.-Besides the tree planting and drainage, 80 acres, already mentioned, Mr. Dumoulin has also done some levelling.

Needless to say anything further to demonstrate that Mr. Dumoulin is a fine example of success in the settlement of our townships and that this success is calculated to encourage all the young settlers, who, young and vigorous, like him, are not afraid, to plunge into the forest in order to hew out for themselves a property destined to assure, with their living, their happiness and that of their children.

Mr. Dumoulin is only 62 years old and still enjoys all his youthful vigor, as does also his worthy spouse, which is a proof that physical labor, commonly termed "hardship" is not necessarily one of those things which ruin health and shorten life. The contrary is of cener remarked. Young French Canadian settlers,should imitate Mr. Dumoulin.

Fig. 80.

Sketch of Mr. Dumoulin's principal barn-stable ; gangway, and upper cross threshing floor; cow stables beneath the barn.
(a) Silo 12' $\times 12$ ' high ;
(b) Stable ;
(c) Barn ;
(d) Gangway.


Fig. 80. (See page 131)

## COUNTY OF SHEFFORD

All the competitors of the County of Shefford reside in the township of North Ely. They are Messers Edmond Robin, Joseph Phaneuf and Joseph Bissonnette, of Valcourt, John Murphy, of Dalling, and Mark Davidson and W. L. Davidson, of Bethel, the latter for the gold medal.

The township of Ely is broken and rocky in places, but there are numerous flats of good land containing fine farms.

Although the merit of the competitors of the county of Shefford is superior in some respects to that of a good number of other competitors in the present competition, on account of the clearing, stoning and other works, which were necessary to the improvement of their properties, we do not intend to dilate upon the details of their operations. We shall only note those which offer and constitute a greater instruction and greater interest for the agricultural body. They have only to consult the table of points to ascertain the degree of merit awarded to them by the Commission and to take home to thmselves the same remarks and the same praise already given to the competitors who obtained the same points for the same subjects.

## Mr. EDMOND ROBIN (79.65 pts, bronze medal.)

Mr. Robin cultivates only 60 acres of the 225 which he owns. He began by purchasing a 70 acre lot 14 years ago and started to work it two years afterwards, abandoning his trade as a blacksmith on account of illness. He resolutely undertook the task of clearing and stoning the lower part of his lot. He has thoroughly improved four regular fields, which he has separated by very well made stone fences, 4 feet wide and placed at a depth of 3 feet and over in the earth with a trench beneath for drainage. These four fields have been very well cleaned up and are well tilled and productive. The soil at this place is light, but of good quality. He has made in all 15 acres of drainage, which works well. All the operations show that Mr. Robin finishes well every work of improvement he undertakes. He is thus progressing surely towards the transformation of his land. Each piece, once improved, has not to be touched again and afterwards yields him good products.

Mr. Robin has embellished the surroundings of his dwelling by planting some 18 maples. When these trees have grown large, his residence will present a very attractive appearance.

Mr. Robin already possesses a herd of over 30 head of horned cattle of all ages, of which 18 are large grade cows, without reckoning 21 pigs and 21 sheep.

Mr. Robin's farm buildings, without meriting the maximum of points, are good and comfortable enough to not prejudice his success, which is recognized in the township, and the Commission are happy to proclaim his merit.

## Mr. JOS. PHANEUF (75.20 pts bronze medal.)

Mr. Phaneuf owns 161 acres of land, of which 60 are under ploughed tillage. He bought his farm 11 years ago; it was all cleared as it is today, less 7 to 8 acres. Since then, he has greatly improved it, not only by better cultivation and rotation, but by effective drainage work in the form of ditches and otherwise, employing for the purpose the stones taken from the surface of the soil-a useful and meritorious work which has increased the productiveness of his farm.

Mr. Phaneuf uses several hundred pounds of phosphate and of the "Vermont" fertilizer. The Commission were unable to ascertain the results produced by these manures.

Mr. Phaneuf carries on little ploughed tillage; we only remarked 10 ? acres of cereals, ${ }_{3}$ acre of very fine potatoes, $1 \frac{1}{2}$ acre of fodder Indian corn and a small piece of turnips and carrots. On the other hand, he had 45 acres under meadow without counting the permanent pasture.

His system consists especiaily in keeping milch cows. The grade cattle apparently Ayshire, Holstein \&c., included 14 cows.

Mr. Phaneuf states that in 1900 he sent $36,000 \mathrm{lbs}$ of milk to the factory and drew from it \$375.

He is provided with sufficient, although not first class buildings.
He owns a good large sugary and a large orchard of several hundred trees mostly grafted.

The soil is pretty uneren and Mr. Phaneuf had to exercise the skill of a good farmer to derive profit adrantageously from it and to make it a farm easier to cultivate and more productive.

Like many others, he also possesses the merit of having to some extent within the range of his power increased the value and the wealth of his township

## Mr. JOSEPH BISSONNETTE (76.70 pts, brouze medal)

Mr. Bissonnette's farm covers 200 acres, of which 60 are under tillage and 50 in permanent pasture.

Mr. Bissonnette took up his land some thirty years ago when it was still nearly all in bush and brushwood. He began by making hemlock bark, for which there was a good demand at that time.

The soil is of good quality, but wet in the low grounds, broken and very rocky in spots.

Mr. Bissonnette's chief merit is to have cleared and transformed into arable soil 35 to 40 acres of land and to have done considerable stoning and some 12 acres of drainage in stone with a continuous course. The fruits which he derives from these good works redounds to the benefit of the whole country.

Mr Bissonnette's buildings are not first class, but they suffice to enable him to get from his stock all the products they can yield.

He owns a herd of 40 cows, 16 of which are grade Durham-Holsteins 21 grade Leicester sheep and some good pigs.

Last year, if Mr. Bissounette does not give erroneous figures, he took to the cheese factory and to the creamery 47,000 ths of milk.

Mr. Bissonnette's installation is agreeable. He has close to his house, which is sufficiently good for a farmer, a large and pretty good orchard and a fine maple sugary, which he works to adrantage.

He also has 24 bee-hives which rank him as an apiculturist.
The fruit garden contains some good currant, gooseberry and raspberry bushes. It is possible that Mr. Bissonnette, after a few years more work, may make his farm one of the finest in his township.

Whatever may happen, he is none the less a meritorious farmer who, has contributed to the development of his locality.

## Mr. JOHN MURPHY (81.25 pts, bronze medal).

Mr. Murphy's farm comprises 200 acres, of which 90 are under tillage. The remainder ( 110 acres) are in bush and pasture. The orchard contains $1 \frac{1}{2}$ acre.

Mr. Murphy is an Irish immigrant, who came to the country with his parents in 1842. He settled in 1855 on the lot which he now owns. His land was then in forest and he had to go two miles through the woods before reaching the road to Montreal. He had no money and began by raising a few potatoes in new clearings; he then went to the United

States to earn a little money, at a ealary of $\$ 10000$ a year, to pay for his lot which he undertook to clear and which is now a well cultivated, improred and productive farm. Mr. Murphy is at present 75 years of age, but he is still active and vigorous. He accompanied us himself over all the parts of his property with all the pride of a man showing the good fruits of his labor.

Mr. Murphy's buildinge, of the divisions of which we give a sketch (fig. 85), as well as his dwelling house, are not of as great value as those of some other competitors, but they are sufficiently comfortable for the purposes of his business. As for the crops, they are well tilled and suff. ciently clean. The potatoes and Indian corn merit $100 \%$ of the points. The dirision and system of tillage were good. There are 250 yards of drainage, which did not seem to be laid deep enough or to work perfectly everywhere. Mr. Murphy has done a great deal of stoning, utilizing the material for fences. He has also done a pretty large amount of levelling.

He uses annually about 500 lbs of compound commercial fertilizer on his potatoes

His stock is pretty good and consists of 3 horses, some 20 grade cattle, including 10 milch cows, 16 grade sheep and 3 pigs.

Mr. Murphy's success and merit are unquestionable and he also offers a fine example to all new settlers He has not only cleared and improred his land and planted an orchard now in full bearing, besides maples for ornamental purposes, but he has lived honorably on his farm, reared his family and expended a thousaud dollars to give his sons a good education. One of them now works the paternal property and another holds a good position in the offices of the Boston and Maine Railway Company in Montreal.

We regret that the detailed statement of all the departments of the farm has not, according to the programm., giren Mr. Murphy euough points to allow of our awarding him the silver medal to which his labor, courage and triumph as a pioneer settler and successful farmer ap. pear to entitle him. We are, however, happy to recommend his name to
the esteem aud consideration of all his follow citizens as that of a man who has deserved well of his country.


Fig. 85
Sketch of the position and division of Mr. Murphy's farm buildings :
(a) Barn;
(bb) Barn and threshing floors;
(cc) Stables;
(d) Manure shed;
(e) Horse stable and barn ;
( $f$ ) Enclosed dunghill.

Mr. JOHN MARK DAVIDSON (75.20 pts. silver medal)
Total area of lot: 176 acres; under tillage, 80 acres -in pasture, 60 acres-in bush, 36 acres.

System of cropping and division, good-Fences, pretty good; Crops suitably clean and good-Tillage well done, especially in the case of the root and other hoed crops, which are numerous and promise a heavy rield.-Drains grood-ditches suitable-6 to 8 acres of drainage; some of the drains seem choked with sand, the result being that some parts of the
land are not drained as perfectly as possible-Extensive stoning works7 acres of stone fence well built, foundations, embankments, \&c.

Very fine sugary of 1360 trees, well equipped and well worked. A pretty good, large orchard; 13 beehives-good plantation of forest trees for the embellishment of the farm.

Stable manure well employed, with a complement of 400 hs of chemical fertilizers applied to the roots, Indian corn, \&c.

Buildings, pretty good, sufficient and comfortable enougn to not prejudice the results of the products of the soil.

Stock: fair and well kept: 37 grade horned cattle (crosses of Ayrshires and apparently of Herefords and other big breeds), 12 cows, 1 bull, 21 heifers or young steers and 4 calves ; 42 grade sheep, 6 pigs, 4 working horses and 3 colts.

A pretty large and good orchard.
Mr. Davidson was born on the adjoining lot, which is the property of his father, and purchased the present farm about a dozen years since. He has improved it as already briefly noted and applies himself to cultivate it neatly and well. His land is not too uneven and, although rocky and full of springs in spots, is easily drained and seems to be of good quality.

Although there are a good many items on which it has not come up to the maximum of points, his farm nevertheless as a whole shows that Mr. Davidson belongs to the class of advanced, enterprising and prosperous farmers and, under this head, the Commission has decided that he unquestionably deserves the silver medal assured to him by the number of points allowed.

## Mr, W. L. DAVIDSON (93.80 pts).

(Competitor for the gold medal).
Mr. Davidson, whose portrait (fig. 81, pl. 14) adorns this report, is, with Messrs Dumoulin and Murphy, one of those raliant and successful pioneer settlers, who, in spite of the programme of the Agricultural Merit
competition, deserve to be decorated with the gold medal, as a testimonial to the meritorious work which they have achieved in transforming the forest into improved, fertile and productive arable soil, in a word, into fine, well built, well ornamented and well tilled farms, supplied with good herds and including fine large orchards and well equipped sugaries.

The photorraphs of Mr. Davidson's house and barn and the plan of the farm, which are reproduced, indicate clearly enough the degree of advancement and the nature of the operations carried on to render a full special description unnecessary ( $V$. figs. 82 and 84 , pl. 14 and fig. 83).

Mr. Daridson felled the first tree on his lot in 1854 , when he was 22 years old. He is still vigorous and works and manages his farm like a young man. His success, his education and the influence which he enjoys have won for him the honor of being called to membership in the Provincial Council of Agriculture.

From the 155 acres owned by Mr. Davidson, 30 acres must be deducted for the sugary and 40 acres for permavent pasture ( 8 and 11, fig. 83) ; the remainder, 95 acres, represents the cultivated area, the roads and the sites of the buildings and yards.

The soil of the farm is of excellent quality, although rocky and fall of springs at the base of the hills. But the extensive work in stoning and draining done by Mr. Davidson has removed in great part these obstacles to good tillage. He now raises crops of roots and Indian corn which hare not their superior even in the good deep soil of the valley of the St. Lawrence.

He has turned to grood account the fine springs of water for the use of his stock in the yards and fields and to supply the wants of his house.

Attentive examination of the plan of the farm (fig. 83) and the crops shown convinces us that, taking into account the topography of the ground, the divisions and system of tillage are as good as could be desired under the circumstances. A good avenue puts all the fields into direct communication with the farm yard and the public road.

The hoed crops are pretty extensive and look very well, and the
yield in general is excellent ( 29.75 pts ) which shows that Mr. Davidson is no common farmer. The buildings are first class, as may be judged by figure 84 (pl. 14) which shows the splendid barn-stable, which, on the occasion of the Commission's visit, was not yet completed and which promises to be a model structure of its kind.

Mr. Davidson uses his stable manure upon his root crops, Indian corn, and the surface of his meadows. He also makes use of the Bradley fertilizer, about 600 tts a year, tor the roots and garden vegetables.

Real Improvements.-Under ground drains-43 acres; fences built with stones taken from the surface of the soil- 25 acres; open ditches, well made -13 acres ; forest trees planted-20 ornamental trees, maples, oaks, etc.

Orchard.-About 200 apple trees in full bearing.
Garden.-Very good and exceedingly well cultirated, containing a great variety of vegetables and small fruits. (Fig. 82, pl. 14). Shows a part of the orchard, the trees in the garden and those ornamenting the front of the house.

Stock.-Grade Ayrshire: 19 pretty good cows; 5 heifers, 5 calves, 1 bull, 8 ox m, 48 grade L icester sheep, whose quality might be better, 10 grade Berkshire and Yorkshire pigs and 3 working horses.

Bookkeeping.-Mr. Daridson keeps books of accounts which seem sufficient for his wants, although his bookkeeping does not come up to that of some other competitors. His balance sheet for last year shows a net profit of \$649.51.

These few remarks and the illustrations above mentioned suffice to show that Mr. Davidson has fully merited the 93.80 pts, a warded to him by the Commission, which rank him among the foremost farmers of the province, and that he is thus not unworthy to wear the silver medal which his success has won for him.

## FIGURES AND REFERENCES.

Portrait of Mr. L. W. Davidson, North-Ely, competitor for the goll medal, an old set ${ }^{-}$ tler and pioneer of his farm, aged 70 years.

## FIG. 82 (plate 14)

View of Mr. Davidson's dwelling house and private avenue.
FIG. 83.
General plan of the farm.
(1) 12 acres, 16 perches.-Pasture.
(2) 11 acres, 8 perches-oats, 8 acres; Swedish turnips, Indian corn for seed, and fodder Indian corn, 3 acres, 8 perches;
(3) 9 acres, 9 perches.-Meadow;
(4) 5 acres, 102 perches.-Beets, carrots, turnips, potatoes and beans, about $\frac{3}{4}$ acre. Balance: orchard, garden and buildings ;
(4a) 3 acres, 14 perches.-Meadow;
(5) 10 acres, 101 perches.-Meadow;
(6) 6 acres, 8 perches.-Meadow;
(7) 10 acres: potatoes, 1 acre; oats and peas, $5 \frac{3}{8}$ acres; wheat $2 \frac{1}{2}$ acres; barley $1 \frac{7}{8}$ acre; all No. 1 ;
(8) 30 acres. Sugary-1200 large, sound trees, good sugar house, evaporator, wood shed, good road ;
(9) 10 acres, 92 perches.-Pasture;
(10) 6 acres, 50 perches.-Meadow ;
(11) Permanent pasture still covered with stumps;
(a) Front road;
(b) Side-road ;
(co) Farm avenue;
(d) Farm buildings ;
(e) Dwelling house and dependencies;
(f) Shed and poultry house \&c.;


Fig. Sr. Portrait of Mr. W. L. Davidson.


Fig. S2. W. L. Davidson's farm. House.


Fig. St. WV. L. Davidson's farm. - Barn and stable.
(g) Workshop and grain shed;
( $h h$ ) Drains (dotted lines).
N. B.-The black lines indicate the stone fences.

View of Mr. L. W. Davidson's barn stable.

## COUNTY OF ROUVILLE.

We return to the zone of the hay-growing counties. The progress of the dairy industry in these counties has much reduced the tracts devoted to the growing of hay for the market; nevertheless, hundreds off acres in meadow belonging to the same proprietors are still to be found there. This year, several of these large hay-land proprietors first took of a crop of good hay then a crop of less adranced growth, and lastly hay shelling on the stalk, a loss of alimentary ralue which the consumer has in great part to pay for without profit and which moreover does not enrish the soil ; but all our competitors belong to the class, who practise a mised system, which is less exhansting. Those in the county of Rourille are Messrs Jonas and Joseph Théberge, of Notre-Dame de Richelieu, and Louis Bessette, of Ste. Marie de Monnoir.

Messrs Jonas and JOS. THéberge, ( 85.60 pts , silver medal).
The Messrs Théberge are brothers by blood and in farming. They are neighbors, working two farms of the same dimensions, divided, fenced, improved and built upon in very nearly the same way. They follow absolutely the same system and the same good course of tillage. The divisions are good and in keeping with the rotation followed, but there are no roads to put all the fields in communication with the home farm. To the observation of th Commission on this head, Messrs Théberge replied that a road was not necessary to get the heaviest crops from the farm and that it was a useless waste of ground. The competitors whose farms, supplied with good roads, are referred to in this report, are of different opinion, on account of the adrantages of another nature derived from a road.


Fig 83

Their lands are in good order, well drained, well fenced and in general, well cultivated.

Their stock is nearly identical in number and value.
Their buildings are almost exactly the same in shape and construction ; and are good, sufficiently comfortable and convenient. Their houses are also first class.

Mr. Jos. Théberge surpassed his brother by: a few points in some details, but the general merit of the two competitors is materially the same and their farms and crops as a whole entitle them both to the silver medal of good farmers.

But we should not overlook the important fact that they owe this honor to the talent and success of their father, an old man of 73 years, still very vigorous, who acquired and donated to them these two properties in a condition which speaks well for his knowledge of farming and ideas of progress.

Let us add also to the praise of Mr . Théberge, senior, that he began his career by threshing grain for others; He succeeded well eridently, seeing that he has established his sons on the fine, rich farms of 160 acres which they occupy and work with the abilities inherited Prom him.

Mr. LOUIS BESSETTE (76.62 pts, bronze medal).
Mr. Bessette cultivates as a tenant farmer 150 acres of land comprising two lots, one of 45 and the other of 105 acres.

His condition of tenant farmer puts him in an inferior position to the other competitors in order to determine, according to the scale of the competition programme, the degree of merit which his agricultural knowledge and abilities should enable him to attain. He caunot make upou this large
farm all the improvements calculated to increase its productiveness and to assist his talent, because they do not accrue to his sole benefit Nerertheless, he does all his farming work properly and he merits special mention for his bookkeeping, the maintenance of his water courses, cattle, and general production, and, among others, for 3 acres of barley, 30 of hay and $1 \frac{1}{2}$ of Indian corn, a small piece of peas, $\frac{3}{4}$ acre of beets, a small field of beets and potatoes, his garden and 35 improved bee-hives. This item of the competition prored to the Commission that Mr. Bessette is an agriculturist of merit.

If we do not go into further details, it is because we have nothing to note that constitutes a matter of special instruction for the public, but this does not deprive Mr. Bessette in any way of the merit of his energy, of his experience and of the good work he has done on a farm not his own property.

## COUNTY OF CHAMBLY.

The fertile and wealthy county of Chambly gave only one competitor in the person of Mr. Edmond Trudeau, of St. Basile.

## Mr EDMOND TRUDEAU (85.05 pts, silver medal.)

Mr. Trudeau cultivates 100 acres of good land, adjacent to the village of St. Basile. We may add that he runs no less atteutively an agency for the sale of agricultural implements, which promotes his success as a farmer.

We should note to his credit the items which have most contributed to raise him in the scale of merit: pretty good system; good, well kept fences ; house and buildings first class, well divided, well constructed and very well kept; manure well used ; ditches and forrows sufficient and in good condition; complete removal of the stones not numerous, it is true, but which have been well utilized; a small extent of drainage that works well; a plantation of 30 young trees to embellish his dwelling, and the


Fig. 86. Ed. Trudeau's farm, - Buildings.


Fig. 87. Ed Trudeau's farm.-House.


Fig. 9ó. Fm. Roy's farm, -Stables.


Fig. 9r. Em. Koy's farm.-Road machine.
products generally of the farm, which are good, especially 24 acres of pasture, 56 acres of meadow, $\frac{1}{2}$ acre Indian corn for seed, 1 acre of potatoes; we may mention also the garden, which is admirably neat, well cultivated and well stocked, and 22 improved bee-hives, to proclaim that Mr. Trudeau understands agriculture.

The cattle are grade animals, in good condition and pretty good. Besides 7 horses of different ages, including 1 stallion, the herds comprise 10 milch cows, 1 bull, 5 heifers, 2 calves, 10 good grade sheep and 5 pretty grood grade pigs.

The aggregate of the points gained by Mr. Trudeau give him the satisfaction of winning the silver medal of Very Great Merit.

We desire to add, in order to be fair, that Madame Trudean should wear it occasionally as a testimony to her large share of merit for the remarkable way in which her handsome well finished house, her lawn ornamented with flowers and her large and fine garden are kept.

FIGURES AND REFERENCES.

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\text { Fig. } 86 \text { (plate 15.) }
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View of the buildings and dwelling house of Mr. Edmond Trudeau, taken from the South-East.

> Fig. 87.(plate 15.)

View of Mr. Trudeau's house on the St. Basile road.
Fig. 88.
Details of Mr. Trudeau's cow and horse stables :
(aa) Passages ;
(bb) Cow stalls ;
(cc) Box-stalls ;
(c1) Poultry-house ;
(d) Manger ;


Fig 88
(e) Fodaer room;
(f) Harness room ;
(g) Passage to the horse stable ;
( $h h$ ) Horse stalls ;
(i) Manure shed;
(i) Water tap;
(k) Part of fodder barn.

Fig. 89.
Section of a stall in the cow stable :
(a) Passage ;
(b) Gutter ;
(c) Partition of the stall ;
(d) Tethering Staples;
(e) Manger;


Fig 89
( $f$ ) Water trough in boards and galvanized iron.
(g) Horizontal board to prevent the fodder from dropping into the water.
(h) Passage at the head along the wail.

## COUNTY OF BAGOT

The three competitors in the county of Bagot were Messrs. Emile Roy, of St-Pie, Elie Beaudry, of St. Dominique and Joseph Desautels, of St. Simon, three worthy representatives of the apicultural progress accomplished in this county.

Mr. EMILE ROY ( $88-25$ silver medal).
(Class of Amateur Agriculturists.)
Mr. Roy is a large proprietor, owning 5 or 6 farms, besides wood lots, village lots, grist, saw and carding mills, etc. $H$ is also a storekeeper, all of which means that he does not live solely upon the products of his land and the fruit of his daily labor. Nevertheless, he devotes his
attention with praiseworthy success to the skillful and able cultivation of a farm of 170 acres at Emileville, a small village which he has founded by his industry and spirit of enterprise.

The soil of this farm is in general of good quality, bat when Mr. Roy undertook to work it, the land was hardly cultivable; there were parts of it rery rocky and others very wet owing to want of draiuage. He dug good ditches, laid out different divisions and, by means of cross ploughing and hoed crops, he succeded in levelling the aneven parts. Three fourths of the earth thrown out from the ditches has been removed. For this purpose, Mr. Roy uses the road machine which he owns and which is shown at work in figure 19, pl. 15. He altered and improved the divisions, removed the stones from the stony spots and ased the stone from the improved fields to construct fences, buildings, wharves, culverts and embankments on the road to the sugary in some swampy low grounds; by means of all these well executed works, Mr. Roy has succeeded in creating a productive, well divided, well drained and easily cultivated farm.

The crops this year were good, several of them obtaining the maximum of points.

The rotation pursued by Mr Roy is the following :
1st year: Fodder Indian corn manured.
2nd year: Peas and oats.
3rd and 4th years: Meadow.
5th and 6th years: Pasture.
Mr. Roy top-dresses his meadows with liguid manure and the solid part of his manures he applies to the Indian corn which he grows on a pretty extensite scale. We visited one tract of 14 acres, which had succeeded splendidly.

As may be judged from the above rotation, the dirision of the land and the system of tillage are good.

The farm buildings, shown in fig. $90, \mathrm{pl} .15$, are first class and very well kept. The stock are comfortably housed in them and the work of attending to them is done conreniently and economically; the buildings also provided with feed rooms, apparatus for the cooking and preparation
of fodder, silos, fodder compartments \&c. Water is supplied by a hydraulic ram worked by the power of the river. The manure is kept under shelter, well looked after and well employed. The farm implements and tools and those used to make the improvements to the soil are numerous and well kept. We remarked among them two drays for hauling stone, a stoning hook, and a trenching plough from Gobeil, of St. Hyacinthe, without reckoning the famous road machine.

The department which deserves more than simple mention, perhaps, is the sugary of 4000 spouts worked by Mr. Roy and which is located at about the centre of the farı. This sugary is a fine area of 50 acres in superficies, well kept, clean and worked in a way to let no branch of a tree go to loss and to facilitate the collection of the sap in all parts of it. The sugar house measures $36^{\prime} \times 20^{\prime}$ and has a cemented floor. It contains four evaporators, a metallic oven and all the apparatus required for the making of first class products. The eraporators are fed automatically, the collecting barrels are supplied with rubber pipes and the boilers hold 2 gallons and are painted inside and outside. There is a room furnishedurith a store and tables and beds for the men, and there is also a horse stable, besides isolated wood sheds filled with dry wood.

We may state in a word that Mr. Roy's sugary is the largest and most perfectly worked of all we have seen in the competition. Mr. Roy claims to derive from the working of his sugary a net profit of \$200 in average years.

The road traversing the sugary is a fine waggon road.
Mr. Roy owns a pretty good stock of Ayrshire and grade cattle and of thoroughbred Yorkshire pigs. He utilizes with good judgment for the feed of his animals, the waste of his grist mills by mising it with the dry fodders and the fodder Indian corn.

Mr. Roy has planted fifty young maples to embellish the frontage of his property.

The other details into which we might enter would further show that Mr. Roy is an agriculturist who understands his business and practises it
with judgment, but these would not be of great interest or information to the general public.

To sum up, we may say that the predominating feature of Mr. Roy's merit is to have created a fine farm out of an unproductive tract of land and to know how to derive profit from the local circumstances and conditions in which he finds himself. By his works and his agricultural success, he has rendered real service to agriculture and to the country.

The silver medal, which is assured to him by the number of points won, will be an honorable testimonial to his services.

## FIGURES AND REFERENCES.

Fig. 90, (plate 15.)
View of the front of Mr. Roy's barn-stable, containing the piggeries, cow and horse stables, silos, feed rooms, \&c., \&c.

Fig. 91 (plate 15)
View of Mr. Roy's road machine.

Mr. ELIE BEAUDRY (88.05 pts, silver medal).
Mr. Beaudry is a fine example of agricultural success. He started in 1870 with a capital of $\$ 300.00$ and purchased his first piece of land at a cost of $\$ 1500$, besides a small life rent. Later he bought two other farms and he now owes only a few hundred dollars on one of them. He owes his increasing prosperity to his labor, economy, good conduct and good farming. He is to-day the proprietor of 190 acres of wel! improved land, suitably furnished with houses, barns, stables, \&-c., planted with good orchards in full bearing, well drained, well fenced and well tilled-in fine, in an excellent state of cultivation and production.

He has built, in wood and in stone, 131 acres of drains, which effectively drain 45 acres of land full of springs, transformed into great plots 6
acres, straightened 350 yards of water courses, levelled hills, removed and spread half of the earth thrown out from the ditches, put ap many handred yards of new wire fence, constructed a piggery of $22^{\prime} \times 30$ supplied with a water pump and obiler, which serves to heat it in winter, sunk two artesian wells, repaired his cow and horse stables, \&c.. \&c. He has also planted 50 trees, mostly maples, along the arenue leading to his house and its sarroundings.

He has a very good garden well stocked with the different vegetables and fruit.

A great part of the farm is of sandy composition and poor quality, but the other part is good loam suited to the growth of grains and hay. Still Mr. Beaudry, with the aid of well treated and well employed manures, manages to obtain a good revenue from his land.

He uses lime and ashes to improve and enrich it with good results, especially in the case of Indian corn and oats.

Stock.-The stock is good. It comprises 4 working horses, two yearling colts and a foal, 22 milch cows ; 2 bulls, -2 years and 1 year old ;9 heifers and 7 calves; 7 sheep; 33 grood pigs. The number of well fed cows and pigs are undoubtedly the key to Mr. Beaudry's success.

Circumstances beyond the Commission's control have prevented the reproduction of the illustrations which were to illustrate Mr. Beaudry's fine establishment, bad weather having injured the photographs.

The Commission rejoices that the silver medal, to which his number of points entitle him, assures public recognition of his merit as a farmer of progress.

Mr. JOSEPH DESAUTELS (85.05 pts. silver medal)
Mr. Joseph Desautels, who is still a young man and married only a few years, farms as a tenant a fine level piece of land of 90 acres, belonging
to his father, but which he will inherit and which he works as if it were really his own property.

It is a well divided, well fenced ( V sketch, fig. 92) and well cultivated farm, with an excellent crop. The greater part of the land is in hay, because Mr. Desautels being alone with his young wife cannot well follow to advantage a system of intensive cropping.

His farm is provided with many buildings which are not all first class, but which are amply sufficient for the needs of his operations.

The dwelling house has numerous and handy dependencies. The stock of implements is complete enough and in good order. The book keeping is pretty good. Mr. Desautels keeps an account of his crops and his transactions.

The improvements to the soil which he has carried out on a farm which does not require very many, consist in the following works:

Enlargement of the plots deepening of the water courses; construction of bridges; fencing the garden and yards; cellar drain, artesian well in the stable, large shed for agricultural and other implements; removal of stones; liming tests; planting of forest trees; improvement of his front road and farm avenue, etc.

Mr. Desautels does not yet keep a heary stock for the reason already specified.

Nevertheless, his pretty farm as a whole, the state of his crops and works and the reasoning power manifested by Mr Desautel in his farming and other operations, have won for him the number of points requisite to obtain the silver medal.

## Fig. 92.

Sketch of Mr. J. Desautels' land.
(a) House and dependencies, sheds, and horses stables;
(b) Piggery ;
(c) Implement house ;
(d) Barn and other farm buildings :
(e) Public road.

## COUNTY OF ST. HYACINTHE.

The county of St. Hyacinthe is one of the fine farming counties of the province, where the progress of agriculture is vigorously quickened by the genius of enlightened and enterprising agriculturists.

The county has the honor and advantage of containing the cradle and headquarters of the Dairy Association and possessing the Dairy School, two institutions which have so powerfully contributed to improve the cultural methods and the manufacture of dairy products throughout the province.

We are not aware whether the two only competitors in this county, in the single parish of St. Barnabé, represent the highest qualificative note of the best agricalture of the county. These competitors are Messrs Adolphe Girouard and André Rodier.

## Mr. ADOLPHE GIROUARD (68.70 pts diploma).

Mr. Girouard farms as a tenant 105 acres of land, which have hardly any feature of interest except that supplied by the pretty good quality of the soil. Holder of an annual lease, he cannot dream of undertaking the realty and cultural improvements requisite to make it a model farm and to exert in that direction his intelligence and knowledge of his business to the extent of aspiring to the higher degrees of Agricultural Merit. Mr. Girouard is satisfied therefore to raise good thoroughbred and other stock with which he carries off encouraging prizes in the agricultural competitions. This indicates that, on a farm of his own, he would soon be noted among the more advanced farmers.

## MR. ANDRE RODIER, ( 85.05 pts , silver medal.)

Area of land: 771 acres,-number of arable acres, 73 ; extent in un. ploughed pasture: $\frac{1}{2}$ acres: heary soil, pretty good, mellow and level. Divisions, fences and system, suitably good.-Fields in good order, excel-

Ient tillage, good production.-Farm buildings in good condition, comfortable for the stock, but not of improved form.

The barn is $72^{\prime} \times 30^{\prime}$ with longitudinal lateral threshing floor and stable alongside, comprising an enlargement of the barn as at Mr. Pierre Potvin's (see fig. 104, plate 17.)

The other buildings and dependencies of the dwelling, wash-house, wood, waggon and grain sheds are of good quality, but the laying out might be more perfect.

The stock of implements is sufficient, good and in perfect condition, and the manures are well employed.

Improvements to the Soil.-Mr. Rodier has done a little stoning and employed the stones. The drainage works, ditches and trenches, removal and spreading of the earth thrown out of the ditches, straightening of the water courses and furrows and the good keeping of the latter entitle Mr. Rodier to the good points, which qualify the value and importance of his labors. The stock are pretty good and well kept.

The cropping comprises: $2 \frac{1}{2}$ acres of wheat, 23 acres of oats, 2 acres of mixed grain or $27 \frac{1}{2}$ acres in all of grain, 1 acre of potatoes and 1 acre of Indian corn for seed, 2 acres of hoed crops, $18 \frac{1}{2}$ acres of meadow and 23 acres of pasture.

The extent of the ploughed crops is a little too large compared with that of the meadows and pastures to constitute absolute perfection in the system.

All that we might add to Mr. Rodier's praise would not be instructive to the public. Let it suffice to say that the 85.05 pts awarded to him in the competition entitle him to the silver medal as the reward of his good work.

## COUNTY OF VERCHERES.

As in order to convey an exact idea of the agricultural value and the importance of the geographical position of the rich county of Verchères, we should have to dilate at greater length than the limits of this report would permit, we shall confine ourselves to noting the six competitors from this county; Messrs Antoine Phaneuf, competitor for the gold medal, and Herménégilde Archambault, of St. Antoine; Joseph Palardy, of Ste. Théodosie; Alphonse Dupré, of Verchères; Gaspard Massue and Arthur Lussier, of Varennes.

## Mr. ANTOINE PHANEUF (94.65 pts)

(Competitor for the gold medal)
We do not intend to go lengthily into details of the competitor's working and improvements. We refer for all that concerns these to the report of the last competition. However, in justice to Mr. Phaneuf, we shall mention his chief points of excellence. to show that he has not des. cended in the scale of the Agricultural Merit.

The area of the two lots entered for the competition by Mr. Phaneuf is 168 acres, of which 142 are arable and the remainder in bush. We give (fig. 94) a sketch of the principal farm on which are the buildings. Opposite this farm, he owns a second lot of an approximate superficies of 33 acres, divided into about three equally sized fields.

The soil of the farm is in great part clayey and of good quality. The rest is a little sandy and less fertile, but Mr Phaneuf has so well improved it that he gets good crops everywhere from it.

The system of cropping which he practises is perhaps not so theoretically perfect as that noted in the case of other competitors, but it cannot be regarded as a bad system. The division of the land, as shown in the sub-joined sketch (fig. 94) is unobjectionable, but it should be remarked that the dotted lines of that plan indicate the absence of the fences, which would be needful at those points. Mr. Phaneuf claims that he uses at need temporary fences, but the Commission would prefer
to see perminent fences there. All the actual fences are of excellent quality and in good order.

The dwelling house (See fig. 96, pl. 16) is very good and pretty, but the divisions, the arrangement and the number and convenience of the dependencies are somewhat inferior to those visited in the case of a good many other competitors. The farm-buildings shown (fig. 95 pl .16 ) are of the nature of those generally seen among the ordinary good farmers of St. Lawrence valley. They are ancient in style, but sufficiently spacious and comfortable for the housing of the stock in good condition. As regards implements and manures, Mr. Phaneuf's merit is equal to that of the best competitors.

The statement of his accounts which he gives for last year contains the following items:

> SALES.


The Commission does not doubt the correctuess of the above three items of expense, but it is surprised to not see set down under this head other inevitable outlays by the competitor, such as labor, taxes, horseshoeing, \&c., \&c.

Improvements to the soil.-Although the Commission remarked several piles of stones in the fields, Mr. Phancuf claims, to have remored a coasiderable quantity, with which he has built foundations for buildings, embanked the eutrauces to the barns \&c., and made 17 linear acres of drainage. The water courses and furrows are well kept; the earth thrown out has been spread and a field 6 acres high has been levelled by straightening a water course and filling the old ditch with stone and earth. By this work, he has won a good tract of fine fertile laud, while diminishing for the future the works of maintenance and the damages caused by the water course. This is unquestionably a useful aud meritorious work, which has not escaped the attention of the Commission. but when it considers Mr. Phaneuf's statement, relative to these levelling and carting works, that he removed 150,000 loads of earth. it is conrinced that there must be a mistake somewhere. For, at 10 cts a load, this work would be worth $\$ 15,000$, that is to say, three times more than the value of the land when his father bequeathed it to him.

The Commission remarked to Mr. Phaneuf that it had not a boandless coufidence in the permanent duration of the effectiveness of his drains, consisting of wide and deep stoned trenches, without a sufficient slope and without a discharge deep enough to faror the rapid flowing off of the water. Wherever that it has encountered works executed in this way for a long time past, it has found their operation to be defective. It is to be hoped that this will not happen with Mr. Phaneuf's extensive works of this nature, upon which he places great value.

As regards commercial fertilizers, Mr. Phaneuf told us that he had used fifteen bags of plaster a year, but that this year he had not done so.

He follows the good practice of collecting the liquid manure and spreading it on the meadows and vegetables.

Mr. Phaneuf has had the good taste to embellish the front of his farm and the surroundings of his house with a good plantation of 74 young maples, which, in a few years, will give to this farm an agreeable aspect and a really remarkable stamp of distinction.

An artesian well, which Mr. Phaneuf has sunk not far from his house, gives a constant supply of good water gushing to the surface of the soil, which is used for watering the animals on the northern lot. His road is in excellent condition and bordered by a fine wire and board fence. The yards and garden are equally well fenced, as may be judged by figure 94 plate 16. The gates and bridges are also good.

Stock.-The stock as a whole is good and includes several handsome thoroughbred and grade Ayrshire cows and heifers. There are 5 working horses, 3 colts, including one of the current year, 14 cows, 3 bulls, including one of the year, 4 heifers, 7 calves, 7 sheep, and 30 good Yorkshire pigs.

## Rotation.-Mr. Phaneuf states that he observes the following rotation :

1st year: Grain and regetables.
2nd year: Grain with a seeding of fodder seeds.
3rd, 4th, 5 th and 6 th years : Meadow.
7th and 8th years: Pasture.
The year's crops consist of $33 \frac{1}{2}$ acres of grain, 1 of turnips, 3 of potatoes, $1 \frac{3}{4}$ of Indian corn for seed, 78 of meadow, 22 of pasture and $\frac{3}{4}$ of green fodders.

Some pieces were not giving their maximum yield. We ascribed this chiefly to the fact that the tillage did not seem to us to have been performed with all the perfection which we remarked in other fields.

Mr. Phaneuf has made for himself a fine large garden, which he has perfectly improved and enriched and which contained fine vegetables.

We should add that Mr. Phaneaf began his career as a farmer with a
good farm of over 4 acres in width, worth at least $\$ 5,000$, without reckoning a pretty handsome fortune brought him by his wife. He claims to be worth at present $\$ 17,500$. This is splendid progress, even deducting the in creased value of the lands and certain moveables.

The figures and inscriptions accompanying this report obviate the necessity of more lengthy descriptive details, and, coupled with our observations, they sufficiently show that Mr. Phaneuf is one of the strong competitors of this region, that he has made new progress since the last competition and that he certainly merits to wear the silver medal with which he has been already decorated, while awaiting his turn to win the gold medal to which his talents, ambition, and love of work and progress should entitle him.

## FIGURES AND REFERENCES

Fig. 94.
Sketch of Mr. Phaneuf's principal farm (the dotted lines indicate the divisions of tae Gields which are not permanently fenced).
(a) Public highway ;
(b) Avenue;
(cc) Cultivated fields;
(d) Bush.


Fig. 95
View of Mr. A. Phaneuf's farm buildings.
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Fig. 100. II. Archambanlt's farm. Stacks of Indian corn.


Fig, Iof and ioz. II. Archambault's farm.-Bull and cow, Canadian breed.

## Fig. 96 (plate 16)

View of Mr. A. Phaneuf's house.


Fig. 97
Installation and relative arrangement of the buidings :
(a) Road;
(b) Entrance avenue;
(c) Green plot;
(d) Lawn ; ornamental trees and flowers ;
(e) Kitchen and fruit garden;
(f) House and kitchen;
(g) Dairy and ice-house;
(h) Workshop and laundry;
(i) Indian corn dryer ;
(j) Grain shed;
( $k k$ ) Wood and waggon sheds;
(l) Privies ;
( $m$ ) Piggery and enclosures for the pigs;
(n) Barn;
(o) Sheep fold;
(p) Large barn ;
(q) Poultry-house ;
(r) Cow stable;
(s) Vegetable room and winter piggery ;
( $t$ ) Horse stable;
(u) Projected waggon shed;
(v) Avenue ;
(x) Barn-yard;
(y) Yard;
(z) Field cultivated as pasture;
(y1) Enclosure ;
(z1z1) We!1;
(z2) Right half of the land.
Fig. 98.
Division of the cow and horse stables:
(a) Horse stable ;
(b) Threshing floor;
(c) Cow stable ;
(d) Shed for vegetables and winter piggery;


Fig 98
(e) Poultry house ;
(f) Main barn.

## Mr. HERMENEGILDE ARCHAMBAULT ( 90.95 , pts, silver medal).

The number of points obtained by Mr Archambault ranks him among the best laureates of this competition. The system of cropping, the rotation, the division of the farm of 75 acres ( $V$ fig 99 ) the quality and the condition of the fences, the dwelling house, the implements, the manures, the general order prevailing in all departments of the farm, the quality of the farming work, the book-keeping, the good maintenance of the water courses, ditches and trenches and the good drainage generally of the farm, have merited the maximum of points and the figure of 29.95 points, allowed for the crops, proclaim their abundance and quality.

The following is the extent of the different crops: oats, 18 acres; peas 3 acres; mangolds, about $\frac{1}{4}$ acre; potatoes, 13 acres; Indian corn for seed. 2 acres; Indian corn for ensilage $\frac{1}{2}$ acre; tobacco about $\frac{1}{4}$ acre; meadow, 26 acres; pastare, $18 \frac{1}{2}$ acres; green fodders, $3 \frac{1}{1}$ acres.

The garden, well kept and well stocked with a good assortment of regetables and small fruits, deserres mention and the congratulations of the Commission to Madame Archambault for her horticultural taste and success.

Rotation.-Regular and in keeping with the division:
1 Grain and hoed crops; 2 grain, with fodder seeds, 3 and 4 meadow; 5 and 6 pasture.-All the grains seeded with clover to enrich the soil with nitrogen. A meadow division broken up and a new one formed every year, $-\frac{1}{4}$ of a division in hoed crops annually; stable manure applied to these.

Improvements to the soil.-Mr. Archambault has thoroughly stoned his land, which moreover was not rocky. He has straightened all his water courses and removed and spread, in the low spots, the earth taken out of the trenches so as to perfectly level them. He has also properiy divided and enlarged his plots.

Mr. Archambault has already ploughed in green buckwheat and he uses 200 to 300 mbs of chemical fertilizers a year upon his vegetables.

His forest plantations consist of some thirty trees, elms, sycamores and maples, set out in front of and to the side of his house.

He has thoroughly levelled and improved his farm road.
His farm buildings are in good condition, comfortable for his cattle and amply sufficient for all his wants. A sidewalk leads from the house to all the dependencies and farm buildings.

Stock.-Mr. Archambault has a pretty numerous stock for his farm and it is of good quality. He is one of the good breeders of Canadian cattle. Figures 101 and 102 (plate 16) are specimens of Mr. Archambault's fine herd.

The figures and references, which follow will supply fuller details.
To sum up, we are happy to point out Mr. Archambault as one of the
leading farmers, who farm on principles and with rare success. He finds in the revenues from his good tillage the means of giving to his family a superior education, without prejudicing the excellent management of his property. On this head, he merits the congratulations of the Commission, together with the silver medal due to his success and to the fine agricultural example which he sets to his fellow citizens.

In order to avoid injustice, let us add that he is admirably seconded by his worthy wife, who understands how to perform with equal success her large share of the work in her department and to secure happiness in her home.

## FIGURES AND REFERENCES.

Fig. 99.
Plan of Mr. H. Archambault's land :
(a) Road, principal street of the village;
(b) Yard, house, lawn and garden;
(c) Farm buildings ;
(dd) Enclosure ;
(e) Farm road;
(ff) Six fields of 12 acres;
(gg) Ditches ;
(h) Projected continuation of farm road ;

Fig. 100 (plate 16.)
View of three sheaves of fodder Indian corn in a state of preservation in the open air on Mr. Archambault's farm.

These sheaves are 6 feet in diameter at the base and are bound very tightly at the top with wire. Each sheave holds 15 to 16 bundles of fodder. The top is brought close together to bind it by means of a rope with a rumning knot and the strength of two men. Rain does not penetrate to the interior of the sheaves and the Indian corn can thus be kept perfectly sound throughout the whole winter to May. It is cut and mixed with clover or other fodders richer in albuminoids for feeding the cattle. This method of keeping, which is simple and easy, appears to be one of the best-at least, Mr. Archambault so claims-for those who have no silo.

Fig. 101 and 102 (plate 16.)
View of Mr. Archambault's Canadian bull "Duc Denis", No 1099, three years old, 1st prize, and Canadian cow "Fleur-de-Mai", No 5346, five years old. Record, several first prizes.

The animals are given as samples of Mr. Archambault's herd.
Mr. Archambault himself is also shown in the figure.

## Mr. JOSEPH PALARDY (8505 pts, silver medal.)

Mr. Palardy is the proprietor of a fine large farm of 285 acres, of which he ploughs 216 , the remainder being in pasture and in bush. He appears to be the pupil and disciple of Mr . Phaneuf in agriculture and to have been directed by him in the path of agricultural improvements. Mr. Palardy did not tell us who was his teacher, but the great stoning, draining and other operations which he has performed on his farm prove that he knows the fundamental principles of good farming. It is these works especially which constitute his merit as a farmer of progress. All his fields are stoned, but all the stones picked from them have not yet been fully utilized; the bulk of them has been used for building fences, foundations and twelve acres of drainage, but there still remain some goodly piles in the fields. The ditches are deep and well made and the farm is everywhere well drained.

The earth thrown out has been removed to the middle of the field and the plots are wide and well made.

Mr. Palardy states that he has done a good deal of levelling to cut down the hillocks, fill up the depressions and render his land flatter and easier to cultivate and drain. It was difficult for the Commission to estimate the value of the work done, on account of its ignorance of the previous condition of the place. In his application, Mr. Palardy declares that, for levelling purposes, he hauled 150,000 loads of earth, and that his stoning work represents 50,000 loads, which would make in all 200,000 loads. The Commission could not help suspecting that the master had inspired the disciple. Whatever there may be in these evidently erroneous figures, Mr. Palardy has none the less done useful, productive and meritorious work, which is far from having cost him the amount of labor he claims and which should surely yield him benefit.

All the other details of the farm, considered separately, present no special interest to the public, but have merited enough points as a whole to contribute to the elevation of the competitor to the number of the silver medal laureates, which should conclusively attest his agricultaral talents and spirit of entreprise.

## MR. ALPHONSE DUPRE (87.30 pts., silver medal.)

Mr. Dupré cultivates 140 acres of land, all arable and comprising three kinds of soils: 1. An alluvial loam of superior quality; 2. A substantial sandy soil on the hills and 3. A clay soil of good composition covered before clearing with oak, elm and ash. This is tantamount to briefly saying that this land is first class, which may excuse, from the theoretical point of view, the imperfection of Mr. Duprés system of cropping, an imperfection, however, which does not prevent him from deriring a good income out of his farm, which causes him to be ranked as one of the leading farmers of his county.

The aggregate of 29 points obtained for his crops attests the abundance of their yield. The farm is well tilled and well drained by means of good ditches and trenches, the earth thrown out from which has been removed and spread. The crops are perfectly clean.

The dwelling house is first class in all respects; the dependencies are good and everywhere, in the yards and buildings, the most admirable cleanliness prevails.

The frontage of the farm is embellished with some fine elms, whose majestic appearance proclaims the importance of the farm.

What we most admired in the inspection of the latter was the thorough order reigning in all the departments, fences, buildings, implemenṭs and fields.

The farm buildings are all whitewashed with lime and, though ancient in shape, are well divided, comfortable and convenient enough. The sketch (fig. 103) gives an idea of arrangement of the main barn, containing the cow and horse stables.

In the matter of implements and manures, Mr. Dupré ranks with the leading competitors.

He has also done stoning work and 4 acres of drainage, which have contributed to increase the value of his land and which are also so many points of merit in his faror.

The garden contains some apple-trees and small fruits.
The herds comprise 5 working horses and 5 colts; 10 grade cows; 5 heifers, 1 ox and 9 calves, 15 grade sheep and 12 pigs.

These animals are of pretty good quality.
It is unnecessary to say anything more in order to proclaim that Mr. Dupre has merited the silver medal as the reward of his agricultural labors and triumphs.


Fig. 103
Sketch of Mr. A. Dupre's barn-stable:
(a) Horse stable ;
(bb) Box stalls ;
(c) Passage ;
(dd) Treshing-floors ;
(e) Cow stable;
(f) Poultry-house;
(gg) Barn.

Mr GASPARD F.X MASSUE (75.05 pis, bronze medal.)
Mr. Massue cultivates an irregularly shaped farm of 207 acres, of which 190 are arable, near the village of Varennes.

In general, the soil is of good quality and superlatively good along the bank of the river.

Mr. Massue's general system of cropping is good, as indicated by the proportion of his crops, of which we give the approximate extent: grains and roots, 69 acres; meadows, 70 acres; pasture and green fodder, 62 acres. But the division and rotation might be better

The course of cropping covers 8 years, 3 of grains and green fodders, with pieces of hoed crops ; 3 of meadow and 2 of pasture.

The details of the cropping present nothing of interest to the public.
Mr. Massue has done stoning and draining work, which have deserved good points.

His account-books are exceedingly well kept.
He has a good herd of 25 cows, 1 Arrishire bull, 7 heifers and 5 cows, all in good condition.

But what most enhances Mr Massue's merit as a farmer is, without referring to his first class dwelling house, his splendid barn-stable which stands on the slope facing the river and which was not yet finished at the time of the Commission's visit. The barn occupies the upper part of the structure and the stables underneath with the manure cellar and a compartment for loose animals in the lower part. When this building shall have been completed, it seems to us that it will be a model of its class. Mr. Massue certainly deserves to be complimented on this wort.

## Mr. ARTHUR LUSSIER (81.40 pts, bronze medal.)

Mr. Lussier's farm has a superficies of 90 acres, 80 of which are cultivated with the plough and 6 are taken up by a rocky eminence on which there is a good 2 acre orchard.

It is a haudsome, good, level farm, well drained and capable of producing extraordinary crops with good tillage, but its division is not perfect in view of a good regular rotation.

Mr. Lussier, who comprehends the advantage of good drainage, has made his ditches and trenches well, besides doing stoing work which has cleared the surface of the soil of the stones prejudicial to the cultivation of his land. Apart from the rocky eminence already mentioned and a heap of stones in a certain spot, the farm has been properly cleaned. His occupation, however, as an agent of agricultural implements, prevents him to some extent from giving to his fine land all the care which it needs to raise it to the highest point of production by the improvement of the divisions and the course of cropping.

Mr. Lussier is still a young man ; but he appears to well understand the fundamental principles of agriculture and we have no doubt that in a few years he will manage to realize his projects of new improvements and to make his farm a model one in all respects.

He has a liquid manure cistern and a manure shed. The manure he uses on his hoed crops and on his meadows after haying. We may say that Mr. Lussier does all his farming work well.

His crop was good enough to establish the accuracy of this statement.
On the eminence already mentioned, Mr. Lussier has planted an orchard of two acres, which, though still young, is very promising for the future.

Mr. Lussier keeps a pretty good herd of Ayrshire cattle, bat it did not seem to us to be large enough for the extent and quality of his land.

It is needless to enter into further details on all the different branches
of the working of the farm, which would only be monotonous and without instruction to the public; but we must congratulate Mr. Lussier on his good beginning and encourage him to go ahead pradently and surely in the path of progres, upon which he has decidedly entered; and his merit will be more marked in another competition.

## COUNTY OF RICHELIEU.

We did not travel enough through the county of Richelien to undertake to pass comment upon the general state of agriculture in it without fear of doing it injustice, for we visited only one farm, that of Mr. Pierre Potvin, of Saint-Ours, who, however, appears to reflect honor upon his county by his success in the present competition.

## MR. PIERRE POTVIN (86.80 pts, silver medal.)

Mr. Potvin's farm consists of 100 acres, but he ploughs only 80 of these, the remainder being in bush and natural pasture.

The figures 104 and 105 (plate 17) give a sufficiently perfect idea of Mr . Potvin's establishment to exonerate us from going into special details regarding his buildings and dwelling house, which the number of points awarded him in the table classes among the best.

Mr. Potvin comes in a good first for his implements, manures, the good order of his fences and buildings and for his tillage works, ploughing, harrowing, plots, \&c, as also for his system of cropping and the divisions of his land.

His ditches and trenches are in good order and sufficient for the proper drainage of his farm, which is suitably stoned and levelled.

He has straightened ditches, made a little drainage which seems to work well and limed a certain extent of meadow with evidently good results. In a word, his improvements of the soil have won for him 9.75 pts .

The proportion of the crops was as follows: 25 acres of grain, about 1
acre of potatoes and roots, $1 \frac{1}{4}$ acre of Indian corn for seed, 22 acres of meadow, 20 of pasture and 2 of green fodders. This proportion may be generally considered as good although theoretically the area under grain may appear a little too great, but the quality and quantity of the crops seem to justify it and prove that in reality Mr. Potvin is an intelligent farmer who understands his business.

The cattle are mostly of the Canadian breed, with a thoroughbred Canadian bull." As a whole, it is a good herd, but we find the number of cows (9) too small for the extent and quality of the land.

Mr. Potvin owns a fine sugary of 1275 maples in good working order.
The kitchen and fruit garden is a credit to Madame Potvin.
Mr. Potvin is still a young man and the progess which he has made in a few pears show that he is going ahead surely and has wasted none of his energy.

His success and the different improvements which he has made in his farm thoroughly entitle him to the silver medal as the brilliant attestation of his unquestionable progress.

## FIGURES AND REFERENCES.

## Fig. 104 (plate 17)

View of Mr. -Pierre Potvin's farm buildings, taken from the south, showin; the e'ms along the public road.

Fig. 105 (plate 17)
View of Mr. Poivin's dwelling, taken from the south east, showin the garden and the gable of the house, the lawn and the $f_{\mathrm{f}}$ nce before the house, the road, \&o.


Fig. rot. P. Potvin's farm.-Buildings.


Fig. 105. P. Potvin's farm,-House.

## COUNTY OF YAMASKA.

The county of Yamaska embraces stretches of saudy, cold and poor quality land, but on the other hand, there are also regions comprising entire parishes, the soil of which is one of the richest in the province of Quebec.

This county is favored by the lines of the St. Guillaume and South Shore railways and by narigation in summer in the northern zone.

A good deal of hay is still grown in its most fertile parts. Still this crop has not hindered the great progress made in it by the dairy industry, which appears to be the chitf factor in the agricultural reputation and wealth of this county.

The six competitors whom we had the pleasure to risit in the course of the competition were Messrs Louis Lavallée, of St-Guillaume, J. Louis Lemire, of the Baie-du-Febvre, H. U. Caron, Arsène Birou and Alexis Gagnon of St-Elphège and Thomas Joyal, of St-Darid.

The first may be regarded as a representative of the hay region and the fire others are more particularly representatives of the mixed cattlo and general production system.

## Mr. LOUIS LAVALLEE (89.10 pts silver medal.)

Mr. Lavallée is an able agricultural machine agent, bat he is also an able farmer, knowing how to exercise for the benefit of agriculture his talents and his natural resources which render him great service in his rôle as agent.

He took possession of his farm in 1881 and started operations with a capital of $\$ 1881$ in land, money, and moveable effects. He had to wcrk as a laborer at first. He now owns one of the best farms in the province, containing 100 acres all arable and he estimates his real estate at over $\$ 17,000$ apart from his rolling stock and the year's crops.

This success really does him honor.
His farm was far from being in good condition when he got it, but he has thoroughly and perfectly improved it in every way since it has come into his possession. He has fenced it with cedar in a superior manner and has well drained it by means of good ditches and trenches, the soil thrown out from which has been spread. He has straightened the existing water courses and has further cleared 18 acres, sunk wells for watering his stock, repaired and improved the farm buildings and built a barn and a splendid dwelling-house, which is shown (in fig. 107, pl. 18), one of the finest met with in the course of this competition. He has also changed his dirisions so as to improve his installation (See fig. 106).

He practises a good system of tillage. His work is well done; his ridges all newly made are wide (18') and straight, and perfect order reigns in all parts of the farm. He is well supplied with good tools and implements. The farm buildings are not constructed on an improved plan, but they are grod and comfortable. As the result of his good work and his good system, all his crops, were of superior quality.

The stone removed from the fields has been utilized for the foundations of his house, barns, yard entrances, and in the construction of a drain and of five wells.

Mr. Lavallée has also planted some 40 forest trees to beautify the approaches to his residence.

As he considers the growing of hay the most profitable for him, the area under meadow exceeds that under pasture and other crops, but to prerent the exhaustion of the soil by prolonged hay-raising, he purchases fertilizers, stable manure among others.

He follows a system of book-keeping, which enables him to keep account of all his agricultural and financial operations and has trained his young daughters to keep his journal or note book.

Mr. Lavallée has not merely paid attention to the soil of his farm ; he has also turned to account his knowledge of the breeding and keeping of good stock.

He is a breeder and a lover of Canadian cattle and a formidable
exhibitor in the competitions. His fellow citizens of the east would therefore still like to see him at St. Norbert, in the northern part of the county of Berthier.

His stock is composed of 4 good working horses and 2 colts of the Canadian breed, one mare of which is registered; 8 milch cows, a registered bulls, -1 of 3 and 4 of 1 year, -5 heifers and 6 calves, all of good Canadian breed, 12 of them registered ; of 15 thoroughbred registered Cotswolds sheep' of first quality (V. fig. 108, pl. 18) and of 8 excellent Yorkshire pigs, several of which are registered.

The few figures which we publish relative to Mr. Lavallee's farm give a sufficient notion of the remainder and should exempt us from going into further details, except mention of the happy and powerful cooperation of Madame Lavallee in the agricultural success of her worthy husband, whom we are pleased to proclaim as one of the good silver medallists of the competition.

## FIGURES AND REFERENCES

Fig. 106
Plan of the installation and relative arrangement of Mr. Lavallee's buildings.
(a) House and kitchen.
(b) Laundry or summer kitchen and wood-shed;
(c) Piggery ;
(d) Sheep-house ;
(e) Barn ;
( $f$ ) Cow and horse stables.
(g) Manure ;
(h) Barn;

Kitchen and fruit garden;
( $f$ ) Enclosure ;


Fig 106
(k) Farm road;
(l) Road.

Fig. 107 (r late 18)
View of Mr. Louis Lavallee's residence at St Guillaume.
Fig. 108 (plate 18)
View of Mr. Louis Lavallees registered Cotswold ram and some sheep.

Mr. J. LOUIS LEMIRE (83.05 pts, bronze medal).
The farm entered for the competition by Mr. Lemire comprises two lots, fronting each other on the public road ; one containing 100 acres and the other 62 acres, which makes the total superficies 162 acres, of which 120 are under tillage, 10 in natural pasture and 30 in bush.

lior 107. I. L.avallée's farm. - Honse

lig. bois. I. Lavallée farm Cotswohl sheep.


Lig 109 . J. L. Lemire's farm. Buildings.

The part situated on the top of the hill is of poor quality and cut up by deep gorges, which are prejudicial to the working of the land; the remainder is formed of Lake St. Peter alluviam and apart from a tew peaty pieces sometimes flooded in the spring, gives a soil of great fertility.

Mr. Lemire's general system of tillage, which has a fodder basis with dairy cattle, is good, but his rotation did not seem to us to be regular enough. The division, howerer, is sufficiently good.

The farm buildings (V. fig. 109, pl. 18) are numerous enough and the barn-stable especially is built on a modern plan, although there are some defects in the frame-work. Mr. Lemire owns a silo and practises the ensilage of Indian corn. His stock of implements and treatment of his manures merited the highest points.

Mr. Lemire has removed all the stones on the surface of the soil that were in the way; he has spread the earth thrown out of the ditches, levelled hills and mounds, and built a good road in the ravines already mentioned. He has straightened the course of a brook flowing at the bottom of a ravine and his ditches and trenches are well kept. He frequently ploughs in green buckwheat and purchases several tons of chemical fertilizers which he applies to the boggy spots in the lower part of his farm. He has also planted a grove of 75 soft and ash-leaved maples.

His stock is good. It consists of 4 working horses, 23 grade Aprshere and Canadian milch cows; 2 adult bulls, 9 heifers, 2 young bulls, and 6 calves, 18 good grade sheep and 20 good Yorkshire pigs.

The cows are fed in winter with ensilage mixed with other richer fodders; while the pigs in summer are fed on clover, whey and meal.

Mr. Lemire applies his stable manure to the hoed crops and also on some of his meadow and pasture lots.

Mr. Lemire's reputation is that of a good farmer and the Commission are satisfied that this reputation is not exaggerated, but it is to be regretted that he is not so grood a competitor, as he lost, in several details of his
farm, points which he might easily have won, if he had been more careful of success in this competition and especially if his labor and his zeal in the public interest had not diverted his attention from his agricultural work. For, let it be said to his praise, Mr. Lemire deserves more than a bronze medal for the progress which he has imparted to agriculture and especially to the dairy industry in his parish, of which he is one of the stoutest champions and to the success of which he has devoted his efforts, his energy and his abilities. But unfortunately, the theory of the programme of the Agricultural Merit competition does not allow of the Commission going beyond the limits assigned thereto and, notwithstanding all its good will, it regrets its inability to award to Mr. Lemire more points than is warranted by the actual state of his farm in general and to recommend a reward more worthy of his agricultural talents, his love of progress and his spirit of enterprise.

## FIGURES AND REFERENCES

## Fig. 109 (plate 18.)

View of Mr. Lemire's buildings.


Fig. 110
Plan of Mr. Lemire's cow stable under the barn :
(a) Stable ;
(b) Part for animals without other separation than a staunchion at the head;
(c) Stalls for two cows ;
(d) Passage;
(e) Liquid manure pit 1' deep by 6' wide, cemented ;
( $f$ ) Ventilator;
(g) Water pipe;
(h) Horse stable;
(ii) Harness closet;
(j) Box-stall ;
(k) Silo;
(l) Stable for loose young animals;
( $m m$ ) Fodder traps fed from the upper threshing floor and clesets with doors;
N. B.-This barn-stable is $20^{\prime}$ square and has a longitudinal threshing floor entered and left by means of gangways.

## Mr. H. A. CARON (82.85 pts. bronze medal)

Total superfies of the farm, 6 acres $\times 22$ acres, on the river St-Francis. Under tillage, 173 acres; in natural pasture, 66 acres; in bush, 16 acres. Varied soil, pretty good on the whole.

Mr. Caron ranks among the strongest competitors for his dwelling house, barn, implements, stable and other manures; several crops obtained the maximum of points, namely: 44 acres of pasture, 28 acres of meadow. The grain crops were good, but the hoed crops were badly kept. Had it not been for this defect, Mr. Caron would have come out one of the first for his crops.

His tillage and drainage works are good enough.
The stock of cattle is pretty numerous and pretty good, bat here as in many other places, a mixture of breeds was noted, which cannot assure the raising of a first quality herd. The pigs were numerous, but not properly fed for quick growth.

Mr. Caron has done some good stoning work, but his land is not yet entirely cleaned.

The other farm buildings not mentioned are fairly good. There is a forge of unquestionable value and utility.

Madame Caron successfully carries on domestic industry and manufactures stuffs, knitted goods and imitations of Persian lambskin which have won for her prizes at the local exhibitions.

We might point out a host of details which show that Mr. Caron understands his business as a farmer, but which possess nothing instructive for the benefit of the public. The table of points sufficiently indicates Mr. Caron's merit relative to the other items. But we confess that MrCaron, as well as the two other competitors in his parish, might easily, by prudent and economical application, further improve the soil of their farms, their crops, their animals and even to some extent their buildings, and win the silver medal in a future competition.

Mr. ARSĖNE BIRON, (82.60 pts, bronze medal.)
Mr. Biron resides in Mr. Caron's neighborhood.
The farm examined measures $6 \times 30$ acres, but Mr. Biron owns elsewhere in the parish other lots, forming a total superficies of 494 acres.

He is a rich property-owner, who combines, with administrative talents, those of a good farmer ; his farming as a whole and his agricultural and other successes point him out as such; but the aggregate of the points awarded for all the details of the farm did not place him high enough to receive a higher recognition more in keeping with his merit and his successes.

Any comment on the details of the crops and improvements, which present no more remarkable feature than that already noted relative to the
competitors who merited on the same items the same points, would be altogether tiresome and without interest to the public. *

## Mr ALEXIS GAGNON (81.35 pts, bronze medal)

Land of about the same nature as that of the two neighboring competitors, comprising a superficies of 140 acres, 71 of which are under tillage, 10 in natural pasture and 59 in bush.

The entire system of tillage, of improvememts, of the buildings, of cropping and of stock presents only a slight difference from that of the two preceding competitors and like them Mr. Gagnon merits his country's recognition for his stoning, drainiug and other works, which hare contributed to the increase of his receipts and value of his farm, but the Commission regrets that the points won do not allow of his being yet decorated with the silver medal which his courage, industry and success seem to merit.

## Mr. THOMAS JOYAL (75.10 pts, bronze medal).

Mr. Joyal's farm comprises 112 acres, of which he only cultirates 83, the remainder being in pasture ( 2 acres) and in bush ( 27 acres).

It is a sandy-clay soil of the Yamaska valley and appears to be of good quality.

To aroid indulgence in compliments and criticism, as well as in detailed descriptions which would be no more useful to Mr. Joyal than to the public, by repeating what has already been said relative to other competitors of the same class, we shall confine ourselves to saying that, for his tillage as a whole and other details of his operations, Mr. Joyal takes rank among his co-competitors of St. Elphege. He has, however, allowed himself to be surpassed by them by some points in certain details, but he is none the less a remarkable farmer who may be classed amoug the successful men of progress.

We refer to the table of points for the Commission's degree of appreciation of the different details of his farming.

As already said relative to the other Yamaska county competitors, there remains little for Mr. Joyal to do to raise his farm to the requisite degree of agricultural and other improvements in order to win a more brilliant reward in a future competition.

## REMARKS

We shall conclude this report by mentioning the names of the competitors who obtained the maximum of points for each item of the programme in the two classes of competitors:

For the system, 24 ; for the divisions, 21 ; for fences, 4 ; for dwelling. house and dependencies, 33 ; for grain and fodder barns, 32 ; for horse stables, 7 ; for cow stables, 13 ; for piggeries, 9 ; for sheep-houses, 3 ; for noultry houses, 2 ; for the total of farm buildings, 5 ; for implements, 37 ; for stable manure, 39 ; for order, 8 ; for account-keeping, 6 ; for improvements to the soil, 1 ; the highest quoted afterwards for this item are 14.95 and 14.90 ; for stock, 105 ; the first is Mr. R. McFarlane, 14.40 pts ; the second, Mr. E. P Ball, 14.25 points, and the third Mr. W. J. Logan, 14 pts ; and after them twenty-eight obtained from 12 incl. to 14 excl. pts; for the crops, 1st (Mr. Wm. McDougall), the next highest on this item being 29.95 , Mr. H. Archambault.

The figures of this recapitulation lead us to add a few final remarks.
The importance of a regular rotation and a proper division of the land seems to be becoming better understood. The sketches which we give of the farms represent models of division and rotation for level soils, where pastures and meadows enter into the rotation. But this practice or judicious improvement is not becoming general quickly enough.

The treatment of the meadows in the hay growing regions, with a

View to increase the yield of this fodder without lessening the fertility of the soil, leaves still much to be desired.

As the fences do not directly influence production, they are a little too much neglected to the injury of order and the fine appearance of the farms.

We have no reproaches to make to the competitors as regards the nature, quality and keeping of their houses; most of them derote more of their attention to this item which is really the most obvious if it be not more paying than the rest of the farm, herds and soil included. The photographs which we publish of some farm-houses show the developed taste of our good farmers and the degree of ease and comfort which they love to give themselves - a fact which may be considered as characteristic of the advanced civilization of our rural population. Good grain and fodder barns are numerous, although they may not bu all perfectly suited to their object. But the excellent combination in a same building of the barn properly so called and of the cow and horse stables, \&c., with a riew not only to prompt and easy fattening and the grod housing of the crops, but also to the economical preparation and distribution of the fodders, the hygienic comfort of the animals and the care of the mannres, still constitutes the exception in that branch of rural economy. It must be conceded that improvements of this kind can only be efferted slow! y and gradually; the farmers must be kept informed of the progress achieved in this respect and know the best plans of farm buildings in keeping with the locality and the systems of working. We may mention among others the barn-stables of Messrs Arch. Muir, pl. II, page 297, Cumnineham, figs 31 and 32 , pages 264 , Templeton, figs 43 and 44 . pages, and J. Burtou, figs 65 and 66 pages 318 aud 319 for broken ground. We may, howerer, state that some of the illustrations of farm buildings are not published aṣ models of perfection from every point of riew, but merely in order to give an idea of the nature of structures intended for the same use aud possessing a similar degree of merit.

The good cow stables which we examined are spacious, well
rentilated and lighted, paved with cement, and supplied with troughs to keep water constantly before the animals, and salt boxes. But we still meet with the old sytem of tethering, which consists in imprisoning the necks of the cows between two staunchions.

Healthy, warm, lighted and comfortable winter piggeries are still too rare.

Perfect sheepfolds are perhaps still more so, but sheep are not very exacting in winter; a simple shelter against the wind, rain or snow, in which they can get suitable and sufficient food, does them no harm or anywhere else on the farm.

As for poultry-houses, there are very few in good condition for the raising and perfect treatment in winter and summer of fowls for eggs or the market. We visited farms where the hens and their lice lived in the cow stables with the cows.

The department of farm implements is one of the best. Several of the competitors had rather too much than too little of this kind of farm property. The machine agents look closely and ably after this branch of the farm. The important question of the treatment and good use of the stable manure seems to be universaly understood, although we have met farms where enough attention is not yet paid to it.

General order on the farm is a detail habitually practised by some rare competitors, attended to occasionally and ably by some others and neglected by too many; they have no time to keep the yards and surroundings of the farm buildings clean and neat, to put in order, under shelter or in their proper places, the tools implements and machines, to keep them constantly clean and in good condition; (1), they have no time to straighten up their straggling fences, on the pretext that they are still good enough to keep in the animals in the enclosures or that they are not in use at the moment.

Good farm roads are pretty mumerous, but all the farms should hold the same rank in this particular.

[^3]There are still too many stables with defective pavements.
Good book-keeping, at least apparently good and complete, is rare. We hare, however, met with some excellent work of this kind which we have noted in this report. We have had occasion to examine some good books, well written up and filled with entries of receipts and expenditure which seemed to be accurate. But who knows that it is not merely neat writing? Were it so-which we ignore-it would be a substantial proof that the importance of the subject is understood.

The bulk of the competitors deserve praise for their iutelligent comprehension of the importance of improvements of the soil of their farm lands : stoning, draining, levelling, spreading of the earth thrown out from the ditches, straightening and widening of the plots, artosian wells, utilization of springs of water, farm aqueducts, wind-pumps, plantations of forest and fruit trees, \&c. We have noted under this head, in their respective reports, the strongest competitors, among whom are the four old pioneer settlers. All these men are real benefactors of their country, whose products and wealth they increase.

The taste for trees for the embellishment of property is beginning to spread among the old parishes in the seigniories. At the homes of nearly all the competitors in those parishes, we observed handsome plantations which, in a few years, will impart to their farms a much richer and more attractive aspect.

We publish as models and, in order to proroke emulation, a few views of handsome plantations which very materially iucrease the ralue of the properties they embellish.

Some of the competitors are making serious tests of chemical fertilizers.
The models of good roads, well built and well kept, are in the SouthEastern townships and in the counties of Huntingdon and Chateaugray ; some of the municipalities of these counties, however, have not yet reached the height of perlection in this respect.

We hare met with a good proportion of fine herds. The Ayrshire breed of cattle and Clyde horses, both, thoroughbred or grade, seem to
dominate in the counties of Chateauguay, Beauharnois and Huntingdon, especially among the Scotch farmers. In the South-East, especially along the American boundary line the Jersey breed, pure or crossed, is pretty widespread. Lower down, a mixture of several large breeds, containing Ayrshire, Jersey or Canadian blood, is encountered. The Canadian breed seems to be in favor in the South Shore counties.

The most widespread horses partake more of the carriage than the draught type. The light nature of the soils and the local topography do not seem to call for heavy animals and if dame rumor is to be believed our Canadians of American origin appear to prefer the buggy to the plough. The farmers of French origin still manifest their preference for horses of the Canadian type more or less pure, which are good for general purposes. The confused mixture of dairy and beef cattle, already more or less mixed together, of small and large breeds on some farms, is an irrational practice which cannot produce herds of similar colors, forms and qualities or assure fixity and the constant transmission of individual qualities and characteristics suited to the objects for which the animals are intended. If heredity is a law to be considered, atavism is also one which should not be lost sight of.

It seems to us that a better result would be attained by selecting the good types of these animals, the progeny of the best families and of the same characteristics, and by coupling them, without other mixture or, what would perhaps be still better, with the selection of the females, by effecting a sustained crossing with good sires of the thoroughbred Ayrshire on Canadian strain (good type) if a dairy herd is to be formed or improved or of the Short-horn Durham breed, if good beef cattle are sought for.

We pass over the sheep and swine in silence. We would simply add that Plymouth Rock poultry predominate on the farms visited by the Commission and that we regard as a defect the introduction of too large a number of breeds of animals of a same species in a same region where there is analogy of soil and climate.

We have visited small or large orchards on nearly all the farms exam-
ined, but we regret to say that the orchards properly kept in all respects are very rare in a country so well adapted to fruit-growing.

In concluding there only remains for us to perform the pleasant duty of thanking all the competitors for the courtesy with which they received us.

If the present report be not received with the same cordiality by all whom it concerns, we can nevertheless assure them of our good will and the impartiality with which we have tried to do justice to all who solicited our visit.
$\left.\begin{array}{l}\text { ARSENE DENIS, } \\ \text { THOMAS DRYSDALE, } \\ \text { JOSEPH DELAND. }\end{array}\right\}$ Judges.
I. J. A. MARSAN,

Secretary.

## COUNCIL OF ARTS AND MANUFACTURES.

ANNUAL REPORT OF THE SECRETARY FOR YEAR 1900-1901.
To the President and Members
Of the Council of Arts and Manufactures.
Gentlemen,
I hare the honor to submit the following report on the operations of the various schools under the control of this Council for the year 1900 . 1901.

During the year seven (7) schools were opened in the province in the following localities:

| School. | No. of classes. | No. of teachers. | No. of pupils. | Average Attendance |
| :---: | :---: | :---: | :---: | :---: |
| Montreal. ........ ............ | 14 | 25 | 817 | 508 |
| Quebec.... ............ .... | 6 | 6 | 149 | 71 |
| Levis ...... ................ | 8 | 12 | 275 | 149 |
| Sherbrooke ........ ......... | 2 | 2 | 51 | 34 |
| Sorel......................... | 1 | 1 | 25 | 6 |
| Three-Rivers .............. | 1 | 1 | 44 | 28 |
| St-Hyacinthe .............. | 1 | 2 | 49 | $\because 9$ |
| - | 34 | 49 | 1410 | 835 |

The number of pupils compared with the previous year shows a decrease of 56 , but if we take into consideration the closing of two class.s, in the Quebec School, comprising 161 pupils during the last term, an increase of 105 would be shown in faror of the present session.

An exhibit from our classes was sent to the World's Fair held in Paris this year and I have great pleasure in reporting that a silver medal has been awarded to this Institution for the collection of work forwarded. It is gratifying to state also that the Council is the only institution of its kind in Canada which has received an award at the Exhibition.

As in former years the pieces of work done in the different schools hare been forwarded to Montreal and the opening of th: Exhibition will be held this evening and a distrbution of prizes to the most successful pupils in this city will take place. The exhibition will remain open for ten days and admission will be free. We have no doubt but that those taking an interest in the work of this Board will pay a visit to this interesting display which comprises specimens from all the classes established in the province under our supervision.

Permit me to suggest that a complete exhibition be held in the Quebec School building before the opening of the classus next fall, where the Provincial Ministers and the poeple in the city would have an opportunity of seeing what we are doing in the way of educating the workingmen of the province. The general meeting of the Council could take place at the same time and prizes be distributed to pupils of the Quebec and Levis Schools.

An application has been received from the authorities of the town of Valleyfield asking the establishment of classes in that place, the rooms together with lighting and heating to be furnished free of charge by the corporation; but for several reasons the opening of the same could not take place this year. Valleyfield is a manufacturing centre and I am of opinion that mechanical and architectural drawing classes would he well attended.

The different schools controlled by this Council have been opened on rarious dates, but, I think it would be adrisable that all be put in operation on the same date.

The valuable results accruing from the instruction given are acknowledged from time to time and many men who hare been pupils are now occupying responsible positions not only in Canada, but also in the United States. The following is a communication addressed to the teacher of the mechanical drawing class of Montreal which speaks for itself ......

Ste. Catherines, Ont., 25ih June 1900.
Dear Mr. Graham.
Your address was given me to dav; I hare many times wanted to write you thanking you for the assistance you gave me in my life's work,
by teaching me mechanical drawing. I took lessons from you at the night school in Montreal.

What I learned there from you has helped me more than anything else in my life. I am now Superintendent of the Packard Electric Co., in this city and I thank you again for that assistance.

Yours truly,
R. V. BINGAY.

During a certain period of the year reports have appeared in the papers re increasing the number of members on the Boards of the School Commissioners in some of the cities, Representations should be made to the Government re haring members of this Council appointed school commissioners in the places where our classes are in operation. The members would then be in a position to examine the teaching of drawing in the schools and could carry into effect paragraph 5, of clause 1696 of the constitution of the Council which reads as follows:
" To make rules and regulations for the establishment, management, administration, and carrying on of a system of teaching drawing in all its branches in the schools under the control of school commissioners and trastees in conformity with the provisions of the law respecting public instruction."

The need of schools where young men can obtain practical and theoretical instruction in certain trades is shown more clearly each year. There is at present very little provision for the instraction of tradesmen and mechanics in this province. No doubt many adrantages would be derived from learning a trade in a well equipped trade school.

Daring the present year the necessity of establishing Technical and Trade Schools has been seriously studied by the Boards of Trade of the Dominion. I think the Council should take the initial steps in establishing these classes in the most important centres of the Province. I feel satisfied that such schools would be well attended and, to commence with, instruction might be given in plumbing, carpentering, house building, sigu and house painting, and as the opportunity presented itself, other classes could be established. Strong representations should be made withoat any delay to the Government, pointing out the importance of having such schools in operation.

Herewith are given details in connection with each school:

## MONTREAL SCHOOL

This school was opened on the 22nd October 1900 and closed on the 29th March 1901.

The following classes were in operation :

| Classes. Numb | Number of papils. | Average attendance. |
| :---: | :---: | :---: |
| Freehand (Jr) .............. ......... ........ | 119 | 60 |
| Freehand (Sr)...... .............. ...... ...... | 30 | 23 |
| Architectural Drawing ..................... | 45 | 33 |
| Decorative Painting...... .......... ........ | 17 | 7 |
| Modelling ...... -............................. | 50 | 24 |
| Lithography ................. ................ | 12 | 10 |
| Mechanical Drawing...... ........... ..... | 63 | 38 |
| Mechanical Draw'g. Pt. St. Chs.o ......... | 28 | 19 |
| Stair Bldg and Building Construction... | 23 | 10 |
| Plumbing and Steam Fitting............. | 46 | 36 |
| Boot and Shoe Pattern Making........... | 19 | 11 |
| Dress Cutting and Dress Making......... | 196 | 97 |
| Solfeggio .................... .................. | 169 | 97 |
|  | 817 | 508 |

The total number of pupils shows an increase of 90 as compared with 1899-1900. Classes were opened later than last season and the attendance was quite satisfactory.

The busts and medallions of several members were made in the Modelling Class during the winter. The inauguration of working from life models was a great feature in this class and I am pleased to say that the pupils who had the advantage of working in this section made good progress. It is intended to follow this method in the future for the advanced pupils.

From time to time certain periodicals and trade journals were furnished to the classes. These were read and studied by the pupils.

The pupils pay an entrance fee of one dollar which is returned to those not absent more than four times during the session. The amount forfeited is distributed in prizes to the most deserving pupils.

This distribution of prizes will take place this evening, the 30th May 1901, in the Monument National. The Committee has addressed a large uumber of invitations and it is hoped that this public meeting will have the effect of making known the method of instruction given in the various branches and will help to increase the number of pupils.

The giving of awards to pupils has been seriously discussed by the Committee and the members have come to the conclusion that the giving of medals and books treating on the different trades would be most suitable.

The resident members and other citizens visited the classes on several occasions.

The work as a whole is above the standard of former years.

## QUEBEC SCHOOL.

The school was opened on the 22nd October 1900, and closed on the 3rd April 1901.

The classes were as follows:
Classes. Number of pupils.

Freehand drawing ....... .......... ............ 42
Architectural drawing..... .................... 28
Modelling.................. ...... ................... 16
Mechanical drawing............................. 16
Carpentry..................................... ..... 15
Plumbing........................................... 32
Average attendance.

149

20
13
7
9
10
12
71

Comparing the attendance with that of the preceding year, a decrease of 190 is shown, but, as stated in the first part of my report, two classes were not put in operation this winter, (boot and shoe pattern making, and
dress cutting), these being followed by 161 pupils, which would leave a diminution of only 29 .

The drawings and other pieces of work received for the exhibition are more numerous than last year and a credit to the school and teachers.

## LEVIS SCHOOL.

This school was opened on the 22nd October 1900 and closed on the 23rd March 1901.

Instruction was given in the following branches:

> Pupils. Average attendance.

| Freehand Drawing-first yr ...... | 58 | 39 |
| :---: | :---: | :---: |
| Freehand, second yr... ........... | 31 | 18 |
| Freehand Sr........ ............... | 17 | 7 |
| Modelling............................ | 21 | 11 |
| Architectural Drawing............ | 37 | 19 |
| Mechanical Drawing............. | 37 | 18 |
| Geometry ..... | 37 | 18 |
| Lectures................ ${ }^{\text {... } . . . . . . . . ~}$ | 37 | 19 |
|  | 275 | 149 |

The number of pupils shows an increase of 33 as compared with last season, and the attendance was fairly good.

This school has a very poor collection of models for architectural and mechanical drawing classes and it would be desirable in order to secure more pupils, to provide these classes wrth new models. These could be acquired during the summer and distributed to the school before the opening next fall.

A special amount should be set aside for the purchasing of the necessary models not only for this school, but for the classes in general

Taking this into consideration 1 can say that the work forwarded to the exhibition is fully as good as last year and shows that good results have been obtained.

The resident member, Mr. Damase Lainé, takes much interest in the school and has furnished models from his establishment. This action on his part is praiseworthy.

## SHERBROOKE SCHOOL.

This school was opened on the 23rd Norember 1900 and closed on the 2nd April 1901.

The courses in operation were the following :

| Classes. | No. of pupils. |  | Average <br> attendance. |
| :---: | :---: | :---: | :---: |
| Architectural Drawing.............. | 17 | 10 |  |
| Mechanical Drawing.............. | $3 \pm$ | 24 |  |
|  |  | 51 | -34 |

The number of pupils, compared with the preceding year, shows a decrease of 12 , but the attendance has been very good.

Owing to the limited sum voted to the school, the Freehand Drawing Class which it was expected to establish was not opened.

The closing of the classes was the occasion of a public meeting held on the 3 rd April at which were present the prominent citizens of the town. An exhibition of the work took place and a distribution of prizes was also made. The following is a list of successful pupils together with the names of the prize donors.

## ARCHITECTURAL DRAWING CLASS.

| 1st prize. Chs Blais, | Presented by Revd Father Gignac. |  |
| :--- | :---: | :--- |
| 2nd " | Harold Ross, | " |
| " Mr. J. B. Verret. |  |  |
| 3rd " | Peter Dunsmore, | " |
| 4th " | Mr. J. B. Verret. |  |
| 4. Beaulieu, | " | " Mr. W. Gregoire. |

## MECHANICAL DRAWING CLASS.

| 1st prize, F. Avery, |  |
| :--- | :--- |
| 2nd " | Albert Wilcox, |
| 3rd | H. Dillon, |
| 4th | A. J. Michie, |
| 5th | A Pery Bagley, |
| 6th | " |
| H. T. Wilson, |  |
| 7th | E. Robitaille, |
| 8th | Alphonse Dubuc, |
| 9th | J. Houston, |
| 10th | A. H. Cleveland, |

Presented by Mr. S. W. Jenckes.
" " Mr. H. D. Lawrence.
" " Mr. S. W. Jenckes.
" "Mr.D.W.McManamy.
" " Mr. S. W. Jenckes.
" " Mr. S. W. Jenckes.
" " Mr. J. S. Mitchell.
" " Mr. J. F Lewis,
9th " J. Houston, " " Mr. Pelletier, M.P.P.
10th " A. H. Cleveland,
This is one of the most important schools under the control of our Council and the work done shows that the teachers are competent. The instruction given is of a practical character.

The success is greatly due to the resident member, Mr. D. McManamy, who has given a considerable amount of his time in visiting the school with the citizens of the place.

## THREE RIVERS SCHOOL

This school consisting of one class was opened on the 6th February and closed on the 2:nd April 1901.

The Freehand Drawing Class was attended by 44 pupils, showing an increase of 16 over the attendance of the former year.

A aistribution of prizes was held on the closing evening and the cost of same was paid by the Corporation, which is furnishing the rooms free of charge.

Judging from the drawings forwarded, an improvement is noticeable over those of the preceding year.

## SOREL SCHOOL

This school was opened on the 9th February and closed on the 27th March 1901.

Instruction was given in Linear Drawing to 25 pupils.
The teacher who is competent does his utmost to have better attendance, but the puolic do not respond to his efforts. As I have already mentioned in former reports, no interest is taken in the school and if the prospects are not brigher next year, the Council would be justified in not patting the school in operation.

## ST. HYACINTHE SCHOOL.

This school was opened on the 28th January and closed on the 17th April 1901.

The classes were as follows:

|  | Pupils | Average attendance |
| :--- | :---: | :---: |
| Freehand Drawing.......... | 18 | 18 |
| Linear Drawing ............. | 31 | 21 |
|  | $\overline{49}$ | $\overline{39}$ |

There is a decrease of 9 by comparing attendance with that of last year.

Good work has been accomplished and the attendance has been very satisfactory.

Annexed to this report is a statement showing the attendance in the different schools together with the number of lessons given in each.

The whole respectfully submitted.

## S. SYLVESTRE,

Statement showing number of pupils, avrrage attendance and number of lessons given in each school.

Schools. No. of pupils. Aver. attendance. No. of lessons.

$$
1900-01 \quad 99-1900 \quad 1900 \cdot 01-99-1900 \quad 1900 \cdot 01 \cdot 99-1900
$$

| Montreal... | 817 | 727 | 508 | 450 | 532 | 640 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec...... ........ | 149 | 339 | 71 | 124 | 278 | 373 |
| Levis................. | 275 | 212 | 149 | 107 | 182 | 207 |
| Sherbrooke......... | 51 | 63 | 34 | 42 | 68 | 78 |
| Sorel ...... . ......... | 25 | 39 | 5 | 13 | 22 | 86 |
| Three Rivers ...... | 44 | 28 | 28 | 11 | 22 | 26 |
| St. Hyacinthe ...... | 49 | 58 | 39 | 44 | 68 | 52 |
| Total......... | 1410 | 1466 | 835 | 791 | 1172 | 1462 |

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[^0]:    Ursuline Monastery, Roberval, 10th June, 1901.

[^1]:    $x_{1}$ Before the name means good market apple.
    $\mathbf{x} \mathbf{x}_{1}$

[^2]:    (1) N. B. The honse is provided with a good cellar, in which there is an excellent store-room for fruit where winter apples keep almot from one year to another. In the first week of last July, Miss MreDougall had the politeness to present to the Commission a plate of fine "Ben Davis" apples as fresh and sound in appearance as if they had been just picked from the tree.

[^3]:    (1) Note.-The majority of the competitors, however, do not merit any reproach on this detail of article VIII of the programme.

