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THE

CANADIAN AGRICULTURIST

AND

Transactions

OF THE

BOARD OF AGRICULURE OF UPPER CANADA.

VOL. V. TORONTO, NOVEMBER, 1852. NO. 11.

BUREAU OF AGRICULTURE.

[*From the Quebec Gazette, October 6.*]

Last night the second reading of Mr. Cameron's bill to provide for the establishment of a Bureau of Agriculture, came off. As was expected, from the tone of certain of the Upper Canada journals, considerable opposition was evinced by some of the members, though we were happy to find that the agriculturalists of the House, the men who are most interested in the matter, and who are best able to judge as to the requirements of that portion of the community, were unanimous in their support of the measure. The class of opposition against this bill, the style of argument made use of by its opponents was certainly below what we should have expected, as we had been led to understand that several members had come down to the House, brim full of reasons, and only wanting an opportunity to completely annihilate the government on the subject. One of the main arguments adduced was, that the agriculturalists of Upper Canada were opposed to the Bureau, that the present arrangement for the encouragement of agriculture was ample for the requirements of the people, and that any other arrangement would certainly prove abortive. — These reasons, if based on anything more than mere assertion, must have had great weight with the House, but our readers will perhaps be astonished to learn that the proof adduced in support of the statements was, that at the meeting lately held in St. Lawrence Hall, Toronto, during the Provincial Exhibition in that city, the hon. Malcolm Cameron, the present head of the Bureau, was greeted by certain persons with groanings and disgraceful names on entering the Hall, where it was announced that he should give explanations as to the views and intentions of the government on the subject of the encouragement of agriculture, and the establishment of a Bureau. The reception of Mr. Cameron at that meeting was, strange to say, (perhaps not, for of late we are prepared to hear any thing from that journal,) by the *Globe* proclaimed as evidence that the farmers of Upper Canada were opposed to the establishment of this office. The argument, however, had not the shadow of truth about it. A larger and more enthusiastic meeting was never held in the City of Toronto, and never was a speaker more warmly greeted, than was Mr. Cameron. It is true that one person, a painter by the name of Orr, who, we believe, was rather more than "three sheets in the wind," did attempt to get up a noise, but the attempt was a miserable failure, and his single voice only, was heard articulating sounds, which few persons, if any, could understand. But even if the meeting had been quite as noisy as the *Globe* represented it to be, even if Mr. Cameron had been greeted by hisses and groans, that would be no proof that the people of Upper Canada are opposed to the Bureau over which that gentleman presides.— The editor of that paper will probably remember the Clergy Reserves meetings held in the same room in 1851, and the noise and tumult there got up by a few persons "friends of religion, to prevent an honest expression of opinion on the subject." He will probably recollect the evening when he and others were obliged to give up the platform to a band of rowdies, calling themselves gentlemen, when even age and the sacred office of the ministry was no protection against the low vulgar abuse of those said rowdies, and when a meeting called expressly for the purpose of eliciting an opinion in favor of the secularization of the Reserves, ended in mock resolutions in favor of their present settlement. Now we would ask the *Globe*, or the member for Kent, what would they have said, if that demonstration had been taken as an expression of opinion on the part of Upper Canada against the secularization of the Clergy Reserves? And yet, would it not have been quite as just as it is now, to proclaim the demonstration lately made of low, abusive, and vulgar language at the meeting in Toronto, as an expression of the farmers of Upper Canada against the Bureau of Agriculture? It is disgraceful then, to libel the people of Toronto, or the farmers who were at that meeting, because one single individual did not know how to behave himself. We believe, and we think that we are sustained in that belief by the state of the case, that the Bureau of Agriculture had nothing to do with the noise at the Toronto meeting, but that to Mr. Cameron's well-known opinions on political topics, to a connection with a party known to be in favour of progressive reform principles, and mainly to his determined hostility to Church endowment, and to these alone to be attributed the conduct of the individual who endeavoured to

abuse that gentleman, and who no doubt had been thoroughly trained by his old masters, as to the particular expressions to make use of.

But, moreover, unlike the Clergy Reserve meeting to which we alluded, and at which the feeling was so strong against Messrs. Brown, Burns & Co., that no order could be restored, Mr. Cameron was listened to with marked attention, and as we have said, with enthusiasm; the reason being, doubtless, that the farmers at the meeting were so large a majority, that Mr. Orr, and any friends who might have desired to encourage him, did not dare to interrupt while the hon. gentleman was speaking. After a great flourish of trumpets by Mr. Smith, about the farmers in his county, who had but one opinion in the matter—and that opposed to the Bureau—and a feeble attempt to make out that Ministers had read their own bill, and therefore knew nothing of its provisions, Mr. Street obtained the floor, and in his usual lucid style, so cornered the hon. lawyer from Frontenac, that he had not a word to say for himself. Mr. Street is himself an agriculturist, the President of the Board of Agriculture in Upper Canada, and decidedly the most prominent and influential man among the agriculturists of Upper Canada.—Such a person, we should judge, is fully competent to form an opinion as to the wishes of the agriculturists in this matter; and he stated distinctly that so far as the views of the different Agricultural Societies—so far as the opinion of the *Agriculturist*, the only legitimate organ of the farmers in Upper Canada, could be taken as expressive of the wishes of the farmers—there was not a single dissentient voice from the principles of the Bill before the House. Mr. Street taxed hon. gentlemen with opposing this bill, merely because it emanated from the Ministry, and challenged them to produce a single tangible reason why it should not pass; whereupon Mr. Smith said, that according to the provisions of the bill, the amount to be paid to local agricultural associations was reduced from £17 10s. to £10. Ah, said Mr. Street, that shews the hon. gentleman knows nothing about it. And indeed it did shew it pretty clearly; for according to the system at present in force, township associations are obliged to deposit £17 10s. before they can attach themselves to the general board, and the new bill proposes to reduce that deposit to £10, thus making it more easy for township boards to become incorporated with the general board. The argument, that the farmers of Upper Canada were opposed to the establishment of the Bureau, having been completely set aside by the statements of Mr. Street, another argument had to be hunted up; and it fell to the lot of Mr. Robinson to come out with one of the greatest absurdities of the evening. He asserted that the agriculturists had but one view of the case presented to them, while, at the same time, he read a host of extracts from Upper Canada papers, papers that are read by nearly every farmer in Upper Canada, in which the Bureau is denounced with the most determined hostility. Mr. Brown followed in the same strain. Oh, said he, if both sides of the question were fairly laid before the farmers of Upper Canada, the result might have been different. That gentleman paid himself a very poor compliment by the assertion; for if the farmers have not had reasons laid before them why the Bureau should not be established, it has not been the fault of the editor of the Toronto *Globe*, a paper which boasts of being read by 15,000 farmers. If but one side of the question was represented to the farmers, that side was the one opposed to the establishment of the Bureau. It is certainly amusing to hear lawyers and editors get up in the House and declare that the agriculturists don't want a Bureau of Agriculture, while the farmers themselves in the House, and, if we may judge from their expressions, the farmers out of the House, declared themselves, not only in favour of the new Office, but anxious for its establishment. *Ne sutor ultra crepidam.* The farmers do not require to be told by the legal gentlemen of the House what are their requirements. We fully concur with Mr. Street in the opinion that the same reasons which induced certain persons to disturb the meeting at Toronto, is the only motive which induces hon. members in the House to oppose this bill—that is, because it emanates from the Government.

ANALYSIS OF THE EXHIBITION.

The following analysis of the Provincial Exhibition, recently held in Toronto, has been carefully copied from the Judge's Books, analysed and clasified by E. W. Thompson, Esq., who kindly acted as one of the Committee. It presents a very interesting table for future references.

Statement relative to the late Provincial Exhibition, showing the amount of competition brought out by the liberal prizes offered, the number of entries made, the number and class of prizes awarded, and the amount of the same, under each heading, the total in each class, and the whole total in all the classes.—The Judges have not in all cases adhered strictly to the number of premiums laid down in the published prize list, but have in a few discretionary instances changed them slighily, making them fewer or more as the case may be. For the exact amount offered in each class of prizes under each heading, refer to the printed list published before the Fair.

The figures, 1, 2, 3, &c., in the column just to the left of the column of Pounds, denote the number and class of prizes awarded under each heading, whether first, second, third, &c., as the case may be, or all of them. Where no entries have been made it does not arise in all cases from the absence of the articles in the country, but rather from the accidental circumstance of the owners or producers not happening to offer them for competition, either through indifference or inattention. Where entries have been made, and no prize awarded, it has arisen, in some cases, from the want of merit in the articles, or in others from some objection on account of non-compliance with some rule of the Association, or in other cases, possibly, from oversight or being too late upon the ground, &c. The Diplomas awarded are not mentioned here, being given along with the names of the parties in

the published list of prizes. In estimating the whole number of animals or articles entered, it is necessary to observe that a number of the entries, as in sheep, poultry, and various manufactures, are each for two or several specimens of the article exhibited.

ARTICLES.	No. of Entries.	Prizes Awarded.	Amount. £ s. d.
CLASS A.—DURHAMS.			
Durham Bull	5	1,2,3,4	14 0 0
Do. do. 3 years old	5	1,2,3,4	12 0 0
Do. do. 2 years old	12	1,2,3,4	10 5 0
Do. do. 1 year old	5	1,2,3,4	7 15 0
Do. do. Calf of 1852	8	1,2,3,4	5 15 0
Do. Cow	19	1,2,3,4	11 0 0
Do. do. 3 years old	7	1 & 2	6 10 0
Do. Heifer 2 years old	9	1,2,3,4	6 15 0
Do. do. 1 year old	5	1,2,3	5 0 1
Do. do. Calf of 1852	6	1,2,3,4	3 5 0
Total Durhams	81	No. 37	82 5 0
CLASS B.—DEVONS.			
Bull	4	1,2,3	13 0 0
Do. 2 years old	1	1	4 10 0
Do. 1 year old	1	1	3 10 0
Do. Calf of 1852	4	1,2,3	5 5 0
Cow	7	1,2,3	8 0 0
Heifer 2 years old	5	1,2,3	6 0 0
Do. 1 year old	4	1,2,3	5 0 0
Do. Calf of 1852	4	1,2,3	3 0 0
Total Devons	30	20	46 5 0
CLASS C.—HEREFORDS.			
Bull	1	1	6 10 0
Do. 1 year old	2	1,2	5 15 0
Cow	2	1,2	8 0 0
Total Herefords	5	5	20 5 0
CLASS D.—AYRSHIRES.			
Bull	4	1,2,3	13 0 0
Do. 2 years old	2	1	4 10 0
Do. 1 year old	3	1,2	5 15 0
Do. Calf of 1852	5	1,2,3	5 5 0
Cow	4	1,2,3	10 0 0
Heifer 2 years old	2	1,2	5 0 0
Do. 1 year old	2	1,2	4 0 0
Do. Calf of 1852	1	1	1 10 0
Total Ayrshires	21	17	49 0 0
CLASS E. 1.—GRADES.			
Cow	11	1,2,3	8 0 0
Do. 3 years old	5	1,2,3	6 15 0
Heifer 2 years old	3	1,2	5 0 0
Do. 1 year old	7	1,2,3	5 0 0
Do. Calf of 1852	7	1,2,3	2 15 0
Total Grades	33	14	27 10 0
CLASS E. 2.—FAT CATTLE.			
Ox or Steer	7	1,2,3	6 0 0
Cow or Heifer	7	1,2,3	6 0 0
Yoke of Working Oxen	5	1,2,3	6 0 0
Ox or Steer for Butcher's Prize	2	1,2	15 0 0
Total Fat Cattle and Oxen	21	11	33 0 0
CLASS F.—HORSES.			
Stallion for President's Prize	37	1	30 0 0
Do. for Agricultural purposes	34	1,2,3	15 0 0
Do. Heavy Draught	15	1,2,3	15 0 0
Do. 3 years old	19	1,2,3	9 0 0
Do. 2 years old	17	1,2,3	6 0 0
Filly 3 years old	12	1,2,3	7 10 0
Do. 2 years old	15	1,2,3	6 0 0
Span matched Carriage Horses	20	1,2,3	8 0 0
Do. Draught Horses	8	1,2,3	8 0 0
Brood Mare and Foal	17	1,2,3	9 0 0
Saddle Horse	10	1,2,3	4 10 0
Total Horses, Class F	212	31	118 0 0
CLASS G.—BLOOD HORSES.			
Thorough-bred Stallion	5	1,2,3	15 0 0
Do. 3 years old	6	1,2,3	9 0 0
Do. 3 years old Filly	3	1,2	6 10 0
Do. 2 years old do.	1	1	3 0 0
Do. Mare and Foal	1	1	5 0 0
Total Blood Horses	16	10	38 0 0
CLASS H.—SHEEP.			
Leicesters.			
Leicester Ram, two Shears or over	11	1,2,3	7 0 0
Do do Shearling	9	1,2,4	4 15 0
Do do Lamb	29	1,2,3	3 10 0
Do 2 ewes 2 shear and over	8	1,2,3	8 10 0
Do 2 ewes shearling	7	1,2,3	6 0 0
Do 2 ewe lambs	15	1,2,3	3 0 0
Total Leicesters	79	18	32 15 0
South Downs.			
Ram, two Shears and over	10	1,2,3	7 0 0
Do Shearling	9	1,2,3	4 5 0
Do Lamb	5	1,2,3	4 0 0
Two Ewes two shears or over	7	1,2,3	8 10 0
Do Shearling	4	1,2,3	6 0 0
Do Lambs	4	1,2,3	3 0 0
Total South Downs	49	18	32 15 0
Merinos and Saxons.			
Ram two shear and over	11	1,2,3	7 0 0
Do Shearling	2	1,2	4 0 0
Do Lamb	6	1,2,3	3 10 0
Two Ewes two shears and over	6	1,2,3	8 10 0
Do Shearling	2	1	3 0 0
Do Ewe Lambs	6	1,2,3	3 0 0
Total Merinos and Saxons	33	15	31 0 0
Fat Sheep.			
Two Wethers	10	1,2,3	6 0 0
Two Ewes	8	1,2,3	6 0 0
Total Fat Sheep	18	6	12 0 0
CLASS I.—PIGS.			
Large Breed.			
Boar, one year and over	9	1,2,3	6 0 0
Breeding Sow, one year and over	10	1,2,3	6 0 0
Boar of 1852	3	1,2	3 10 0
Sow of 1852	11	1,2,3	4 10 0
Total Pigs, Large Breed	33	11	20 0 0
Small Breed.			
Boar one year and over	3	1	3 0 0
Breeding Sow one year and over	7	1,2,3	6 0 0
Boar of 1852	1	1	2 0 0
Sow of 1852	4	1,2,3	4 10 0
Total Pigs, Small Breed	15	8	15 10 0

CLASS J.—POULTRY.

Pair Dorking Fowls	6	1,2	0	15	0
Pair Poland Fowls	7	1,2	0	15	0
Pair large breed Fowls	16	1,2 3	0	17	6
Pair Turkeys	5	1,2	0	15	0
Pair large Geese	10	1,2	0	15	0
Pair Muscovy Ducks	1	0,0	0	0	0
Pair Common Ducks	7	1,2	0	15	0
Pair Guinea Fowls	1	0,0	0	0	0
Lot of Poultry (for best)	4	1	0	10	0
Total Poultry	57	14	£5	2	6

CLASS K.—AGRICULTURAL PRODUCTIONS.

25 bushels Fall Wheat	28	1,2,3	40	0	0
2 " do.	36	1,2,3	5	10	0
2 " Spring Wheat	27	1,2,3	5	10	0
2 " Barley	14	1,2 3	3	0	0
2 " Rye	6	1,2,3	3	0	0
2 " Oats	12	1,2,3	3	0	0
3 " Peas	17	1,2,3	3	0	0
2 " Marrowfat Peas	19	1,2,3	3	0	0
2 " Indian Corn (in ear)	8	1 2,3	3	0	0
1 " Timothy Seed	10	1,2,3	3	0	0
1 " Clover Seed	5	1,2,3	3	0	0
1 " Hemp Seed	3	1,2,3	2	5	0
1 " Flax Seed	10	1,2 3	3	0	0
20 lbs. Swede Turnip Seed	3	1,2	1	5	0
Bale of Hops	12	1,2,3	5	0	0
1 bushel Potatoes	48	1,2,3	1	10	0
1 " Swede Turnips	11	1,2,3	1	10	0
1 " White Globe Turnips	2	1,2	1	5	0
1 " Aberdeen Yellow Turnips	1	1	0	15	0
1 " Red Carrots	4	1,2,3	1	10	0
1 " White or Belgian Carrots	8	1,2,3	1	10	0
1 " Long Red Mangel Wurzel	11	1,2,3	1	10	0
1 " Yellow Globe do. Wurzel	8	1,2,3	1	10	0
12 roots Khol Rabi	6	1,2	0	15	0
1 bushel Sugar Beet	5	1,2,3	1	10	0
1 " Parsnips	3	1,2,3	1	10	0
4 Cattle Squash	6	1,2.3	1	10	0
Manufactured Tobacco	2	1	1	0	0
28 lbs. Broom Corn Brush	6	1,2,3	2	5	0
112 " Flax	3	1,2,3	11	0	0
112 " Hemp	2	1,2	6	10	0
Total Agricultural Productions	336	85	£123	10	0

CLASS L.—HORTICULTURAL PRODUCTS.

20 varieties Apples, named	18	1,2,3	1	10	0
12 Table Apples, named	53	1,2.3	1	2	6
12 Winter Apples, named	56	1,2 3	1	2	0
Variety of Pears, named [for best and greatest]	5	1,2,3	1	10	0
12 Table Pears, named	23	1,2,3	1	2	6
12 Winter Pears, named	18	1,2,3	1	2	6
12 Dessert Plums, named	35	1,2.3	1	2	6
12 Baking Plums, named	18	1,2,3	1	2	6
12 Hot-house Peaches	4	1,2,3	1	2	6
12 Open Air Peaches	26	1,2,3	1	2	6
Collection of Open Air Peaches	2	1,2	0	17	6
4 bunches Hot-house Grapes	5	1,2,3	1	2	6
4 " Open Air Black Grapes	5	1,2,3	1	2	6
4 " Open Air White Grapes	11	1,2,3	1	2	6
2 Pumpkins	10	1,2,3	1	2	6
4 Table Squashes	10	1,2,3	1	2	6
12 Tomatoes	18	1,2,3	1	2	6
4 heads Cauliflower	5	1,2,3	1	2	6
4 heads Summer Cabbage	3	1	0	10	0
4 heads Winter Cabbage	14	1,2,3	1	2	6
12 table Carrots	7	1,2,3	1	2	6
12 roots White Celery	7	1,2,3	1	2	6
12 roots Red Celery	6	1,2,3	1	2	6
Dozen Capsicums	7	1,2,3	1	2	6
Six Purple Egg Plants	4	1,2,3	1	2	6
12 Blood Beets	8	1,2,3	1	2	6
Peck White Onions	8	1,2,3	1	2	6
Peck Yellow Onions	8	1,2,3	1	2	6
Peck Red Onions	12	1,2,3	1	2	6
Half bushel White Table Turnips	3	1,2,3	1	2	6
Peck White Beans	10	1,2,3	1	2	6
Dozen Dahlias, named	3	1,2	0	17	6
Bouquet Cut Flowers	3	1,2	0	17	6
Collection Green House Plants	3	1,2,3	2	5	0
Collection Annuals, in bloom	4	1,2,3	1	2	6
Floral Ornament	3	1,2	1	15	0
"Canada Coffee," (or Chick Pea)	3	1,2,3	1	0	0
Water Melon	6	1,2,3	0	17	6
Musk Melon	18	1,2,3	1	2	6
Collection Dahlias	2	1	1	0	0
Variety Green House Plants	1	0	0	0	0
Variety Vegetables	4	1,2,3	1	2	6
2 Bunches Grapes, (for best and heaviest)	3	1,2,3	1	2	6
20 Roots Chicory	7	1,2	0	17	6
20 Lbs. Manufactured Chicory	5	1,2	1	10	0
Total Horticultural Products	482	121	£50	5	0

CLASS M.—AGRICULTURAL IMPLEMENTS.

Wooden Plough	20	1,2,3,	4	10	0
Iron Plough	9	1,2,3,	4	10	0
Pair of Harrows	5	1,2,3,	2	5	0
Fanning Mill	3	2,3,	1	10	0
Threshing Machine	4	1,2,3,	10	0	0
Grain Drill	4	1,2,3,	6	0	0
Straw Cutter	9	1,2,3,	2	5	0
Smut Machine	2	1,	1	10	0
Grain Cracker	2	1,2,	3	10	0
Corn and Cob Crusher	2	3,	0	10	0
Clover Machine	1	1,	2	0	0
Two-horse Waggon	1	1,2,3,	6	0	0
Horse Rake	1	1,	1	0	0
Metal Roller	3	1,2,	4	15	0
Reaping Machine	1	1,	5	0	0
Stump Extractor	1	0,	0	0	0
Mowing Machine	1	1,	5	0	0
Cultivator	3	1,2,3,4	3	10	0
Set of Horse Shoes	8	1,2.3,	1	10	0
Half dozen Narrow Axes	7	1.2.3,	1	10	0
Half dozen Manure Forks	5	1,2,3,	1	10	0
Half dozen Hay Forks	5	1,2,3,	1	10	0
Half dozen Scythe Snaiths	5	1 2,3,	1	10	0
Ox Yoke and Bows	3	1,	0	15	0
Grain Cradle	4	1,2,	0	15	0
Half dozen Iron Shovels	1	1,	0	15	0
Total Agricultural Implements	126	56	73	10	0

CLASS N.—DAIRY PRODUCTS.

Firkin Butter, 56lbs or more	15	1,2,3	5	0	0
Cheese, 30 lbs. or more	26	1,2,3	5	0	0
2 Stilton Cheese, 14 lbs or more	9	1,2,3	5	0	0
Butter, not less than 20 lbs.	23	1,2,4	3	0	0
30 lbs. Maple Sugar	4	1,2,3	1	15	0
Sugar made by Indians	1	2	0	10	0
Starch	3	1,2	1	5	0
Collection Soaps	2	1	0	15	0
Total, Dairy Products, &c.	82	19	22	0	5

CLASS O.—DOMESTIC MANUFACTURES.

Side Saddle	3	1,2	1	15	0
Whips and whip thongs	1	1	1	10	0
Set of Farm Harness	5	1,2 3	3	0	0
Set of Pleasure Harness	7	1,2,3	3	0	0
Saddle and Bridle	3	1,3	1	15	0
Travelling Trunk	2	1,2	2	0	0
Side of Sole Leather	15	1,2,3	2	10	0
Side of Upper Leather	11	1,2,3	1	10	0

Skirting Leather	11	1,2,3,4,5	2	10	0
Calf Skin	18	1,2,3,4	2	0	0
Side of Harness Leather	14	1,2,3	1	10	0
Fur Hat	4	1,2,3	1	10	0
Fur Cap	11	1,2,3	1	10	0
Fur Sleigh Robe	6	1,2,3	1	10	0
Bootmaker's work	4	1,2,3	1	10	0
Total Leather and Furs	115	43	29	0	0

CLASS O, 2nd.—MANUFACTURES IN METAL, &C.

Specimen Silversmith's work	1	1	2	0	0
Ornamental Iron work, cast	1	1	1	10	0
Coppersmith's work	1	1	1	0	0
Iron Tin-proof Vault Door	5	1,2	2	15	0
Cooking Stove and Furniture	33	1,2,3	3	0	0
Parlour Stove	10	1,2,3	1	15	0
System of Ventilating Buildings	1	1,2	3	0	0
Balance Scales	2	2,3	1	0	0
Model Hot air Apparatus	1	1	1	10	0
Steaming Apparatus for feeding Stock	2	1	1	10	0
Set of Cooper's Tools.	1	1,2	1	5	0
Set of Bench Planes	2	1	0	15	0
Pair of Hames	3	1,2	0	15	0
Blacksmith's Bellows	5	1,2	2	0	0
Rifle	3	1,2	1	5	0
Total manufactures in metal	53	26	25	0	0

CLASS P.—CABINET WARE, CARRIAGES, &C.

Specimen Sawed Pine	1	1		10	0
Specimen Sawed Oak	2	1		10	0
Do. Graining Wood	3	1,2,3	3	0	0
Centre Table	2	1,2	1	15	0
Sofa	1	1	3	0	0
One-horse Pleasure Carriage	4	1,2,3	3	0	0
Two-horse Pleasure Carriage	2	1	2	0	0
Dozen Broom Handles, turned	1	1		10	0
Dozen Flour Barrels	2	1,2		5	0
Wooden Pail	1	1		7	6
Washing Machine	1	1		10	0
Churn	5	1		15	0
Four or six pannelled door	1	1		15	0
Model Beehive	2	1,2		15	0
Total Cabinet Ware, &c.	29	22	19	2	6

CLASS Q.—WOOLLEN & FLAX GOODS.

Woolen Carpet	1	0	0	0	0
Woolen Blankets	7	1,2,3	3	10	0
Counterpanes	10	1,2,3	2	5	0
Flannel	4	1,2,3	2	5	0
Satinet	7	1,2,3	2	5	0
Broad Cloth	3	1	2	0	0
Home-made Flannel	6	1,2,3	1	10	0
Fulled Cloth	4	0	0	0	0
Shawls, home-made	2	1		15	0
Linnen Goods	3	1,2,3	1	10	0
Flax and Hemp Cordage	10	1,2,3	1	10	0
Total Woolen and Flax Goods	56	23	17	10	0

CLASS R.—LADIES' DEAARTMENT.

Crotched Work	31	1,2,3	2	5	0
Woolen or Cotton Netting	11	1,2	1	5	0
Fancy Netting	7	1,2	1	5	0
Fancy Knitting	18	1,2,3,4	2	0	0
Embroidery	15	1,2,3,4	2	15	0
Worsted Work	47	1,2,3,4	1	17	5
Raised Worsted Work	19	1,2,3	2	5	0
Wax Fruit	1	1		15	0
Wax Flowers	11	1,2,3	1	10	0
Wax Figures	1	0	0	0	0
Pair Woolen Socks	9	1,2,3	1	2	6
Pair Woolen Stockings	4	1,2,3	1	2	6
Quilts	38	1,2,3,4,5	5	0	0
Gentlemen's Shirts	1	2		10	0
Pair Woolen Mittens	8	1,2	1	0	0
Pair Woolen Gloves	1	2		7	6
Hat, Canadian Straw	6	1 2,3	1	2	6
Total Ladies Department	229	44	26	2	6

CLASS S.—FINE ARTS, &C.

Professional List in Oil.

Historical Painting, Canadian subject	3	0	0	0	0
Landscape, Canadian subject	9	1,2	5	0	0
Animals	4	1,2	4	0	0
Portrait	16	1,2	4	0	0

Amateur List in Oil.

Historical Painting, Canadian subject	7	1	2	10	0
Landscape Canadian subject	9	2	1	10	0
Animals, grouped or single	2	2	1	10	0
Portrait	4	2	1	0	0

Professional List in Water Colours.

Landscape, Canadian subject	12	2	1	10	0
Portrait	8	1.2	3	0	0
Minature	2	0	0	0	0

Amateur List in Water Colours.

Portrait	1	2	1	0	0
Animals	9	2	1	0	0
Miniature	3	1	1	10	0
Flowers	5	1,2	1	15	0

Professional Pencil and Crayon.

Pencil Portrait	2	2	0	0	0
Crayon Portrait	2	0	0	0	0
Pencil Drawing	4	1	1	10	0
Crayon Drawing	7	1,2	2	10	0
Coloured Crayon	6	1	1	10	0

Amateur Pencil and Crayon.

Pencil Portrait	4	0	0	0	0
Crayon Portrait	3	0	0	0	0
Pencil Drawing	11	1,2	1	15	0
Crayon Drawing	10	1	1	9	0

General.

Colored Geometrical Drawing	3	0	0	0	0
Collection Daguereotypes	3	1,2	2	10	0
Lithography	11	1.2	2	10	0
Wood Engraving	5	1,2	2	10	0
Copper Engraving	4	1,2	2	10	0
Steel Engraving	3	1	1	10	0
Seal Engraving	2	1	2	0	0
Carving in Wood	3	1,2,3	4	0	0
Modelling in Plaster	3	1	2	0	0
Ornamental Writing	2	2	0	10	0
Stuffed Birds	4	1,2	1	10	0
Picture Frame, Gilt	1	2	0	10	0
Picture Frame, Veneered	3	0	0	0	0
Stucco Moulding	1	0	0	0	0
Stained Glass	2	0	0	0	0
Dentistry	1	0	0	0	0
Mechanical Production, for Mechanics' Institute prize	4	0	0	0	0
Ornamental Penmanship, competing for a gold medal	2	1 Medal			
Total Fine Arts	201	43	59	10	0

CLASS T.—BOOKBINDING, PAPER, &C.

Specimens Bookbinding	8	1,2,3	2	5	0
Ream of Printing Paper	5	1,2,3	2	5	0
Letter-press Printing	17	1,2,3	5	0	0
Total Bookbinding, &c.	30	9	9	10	0

CLASS U.—INDIAN PRIZES.

Pair Moccasins, plain	1	0	0	0	0
Pair Moccasins, with Porcupine Quills	1	1	0	5	0
Do. do. with Beads	1	5	0	0	0
Total Indian Prizes	3	1	0	5	0

CLASS V.—POTTERY.

Specimens of Pottery	5	1 2,3	2	5	0
Do. Draining Tiles	4	1,2,3	2	5	0
Dozen Bricks	1	1	0	10	0
Water Filters	2	1	0	15	0
Total Pottery	12	8	7	15	0

CLASS W.—FOREIGN STOCK & IMPLEMENTS.

Devon Bull	1	1	2	10	0
Stallion, Agricultural	4	1,2	6	0	0
Blood Stallion	2	1,3	6	0	0
Merino Ram	2	1,2	2	10	0
Two Merino Ewes	2	1,2	2	10	0
Plough	22	1,2,3,4,5	4	5	0
Subsoil Plough	3	1	1	0	0
Pair Harrows	1	1	1	0	0
Fanning Mill	2	1	1	0	0
Threshing Machine	3	1,2	4	10	0
Seed Drill or Barrow	6	1,2	1	10	0
Straw Cutter	10	1	1	0	0
Smut Machine	0	0	0	0	0
Portable Grist Mill	1	1	2	10	0
Grain Cracker	1	1	1	10	0
Root Cutter for stock	1	1	1	0	0
Corn and Cob Crusher	2	1	1	0	0
Clover Machine	1	1	2	10	0
Reaping Machine	3	1	2	10	0
Cultivator	4	1,2	1	15	0
Assortment of Agricultural Implementt & Edge Tools	1	1	5	0	0
Total Prizes class	72	31	£50	0	0

Discretionary Entries and Prizes,

Embracing articles not enumerated in the published Prize List. The items cannot well be given in detail, as it would occupy too much space, nearly every entry under each general heading being a different article—and the articles being of Foreign and Canadian growth and manufacture indiscriminately, but the majority Canadian.

Figures in 2nd column from the left denote the whole number of Prizes.

Horses, Cattle, &c.	45	8	£ 6	0	0
Poultry, &c.,	16	3	9	15	0
Horticulture, Fruits, Seeds, &c.	79	38	17	10	0
Flour, Meal, Pot and Pearl Barley, specimens Baking, &c.	18	3	2	5	0
Implements, Tools, Machinery, Models, and General Manufactures in Wood and Metal, &c.	178	41	47	5	0
Textile Fabrics, and Manufactures of Wool, Cotton, Linen, Furs, Leather, &c.	51	18	11	0	0
Animal Extracts, as Glue, &c., and Manufactures of Bone, Horn, Hair, &c.	23	3	2	0	0
Drugs, Chemicals, Condiments, &c.	10	2	0	15	0
Scientific Apparati, and Expositions, &c.,	11	3	3	0	0
Specimens of Ladies' Work, including Hamilton Carpet, &c.	27	5	8	15	0
Fine Arts, &c.,	38	13	12	10	0
Indian Specimens, &c.	14	1	0	15	0
Saccharines, Salts, Oils, &c.,	12	3	1	0	0
Other Miscellaneous Entries	11	2	0	12	6
Total Discretionary Department	523	143	£114	7	6

RECAPITULATION.

ARTICLES.	Total number of Entries.	Total number of Prizes.	T. Amo'nt.		
CATTLE.					
Durhams	81	37	£82	5	0
Devons	30	20	48	5	0
Herefords	5	5	29	5	0
Ayrshires	21	17	49	0	0
Grade Cattle	33	14	27	10	0
Fat Cattle	21	11	33	0	5
Total Horned Cattle	191	104	260	5	0
Horses, class F.	212	31	118	0	0
Thorough-bred Horses	16	10	38	0	0
Total Horses	228	41	156	0	0
SHEEP.					
Leicesters	79	18	32	15	0
South Downs	39	18	32	15	0
Merinos and Saxons	33	15	31	0	0
Fat Sheep	18	6	12	0	0
Total Sheep	169	57	108	10	0
PIGS.					
Pigs, Large Breed	33	11	20	0	0
Do. Small Breed	15	8	15	10	0
Total Pigs	48	19	35	10	0
MISCELLANEOUS.					
Poultry	57	14	5	2	6
Agricultural Productions	336	85	123	10	0
Horticultural Products	482	121	59	5	0
Agricultural Implements	136	56	73	10	0
Dairy Products, &c.	82	19	22	5	0
Leather and Furs	115	43	29	0	0
Manufactures in Metal	53	26	25	0	0
Cabinet-ware, &c.	29	22	19	2	6
Woolen and Flax Goods	56	23	17	10	0
Ladies' Department	229	44	26	2	6
Fine Arts, &c.	201	43	59	10	0
Bookbinding, &c.	30	9	9	10	0
Indian Prizes	3	1	0	5	0
Pottery	12	8	7	15	0
Foreign Class	72	31	50	5	0
Discretionary Department	523	143	144	7	6
Grand Total	3042	909	1193	5	8

PRIZES OFFERED, &c.	Articles Enumerated.	No. of Prizes Offered.	Am. Offered		
Prizes *Offered* in the List published before the Exhibition	425	1136	1423	0	0
Difference in amount between Prizes offered and those awarded		227	229	9	5

Sewing machines threaten to effect a complete revolution in thread and needle operations. About five hundred are now in full operation in America, and they are ordered from the manufactories faster than they can be supplied—They are now adapted to the sewing of boots and shoes.

An Artesian well, 334 feet deep, tubed 75 with cast iron, six inches in diameter, and throwing up 300 gallons of water per minute, has been sunk at Selma, Aly., at a cost of $300.

The Agriculturist.

TORONTO, NOVEMBER, 1852.

BONE MANURE.

We insert for the benefit of our readers the following observations on the use and properties of bones for the purposes of manure. No town in Canada of any importance should be without the requisite machinery for grinding bones, and we hope soon to see the agriculturists of the country bestirring themselves in this matter, which is certainly one of no small importance. Throughout the well settled parts of the country large quantities of bones of the best quality may be collected, which, in their present state, are quite worthless, and not unfrequently a positive nuisance. It is the province of ever advancing science and art to convert what is apparently useless, and sometimes deliterious and offensive into products of convenience and utility. So of late years, a new and ready way has been discovered of making the various constituents, of which the animal framework is composed,—things usually regarded as worthless and offensive—restore fertility to soils which man's ignorance and cupidity had exhausted.

We will only remark further, that we understand Mr. Gamble has recently erected a Bone Mill in this neighborhood, and that one or two Agricultural Societies in other parts of the Province are making enquiries into the subject. The price of bone dust at Mr. Lamb's works is very moderate:—1s. 6d. per bushel when taken in quantities. At this rate it can be *profitably* applied to turnips, and we think also in many cases to wheat, when that article does not fall below four shillings a bushel.

University of Toronto.

We, the undersigned, learn with much pleasure that Mr. Peter R. Lamb, of this city, has been the first that has had sufficient enterprise to erect the necessary Machinery for grinding bones for manure, at an expense of about £250.

It has been known for a number of years, by experienced Agriculturists, as well as by chemists, that Bones contains several fertilizing substances, more or less required by all cultivated crops, and that by the mere mechanical operation of crushing or grinding, they can readily be made available to the wants of vegetation, and thus constitute one of the richest and most permanent kinds of manure.

The rapid strides made in British Agriculture during the last quarter of a century, have been materially assisted by the application of Bones as a fertilizer; and it is not too much to say that without the ready and effectual means which they supply of preparing poor, light, and elevated lands, for a course of alternate cropping, Turnip Husbandry could not have been carried to anything like its present extent, and consequently those distinguished improvements which have of late years been effected both in the breeding and fattening of Stock, and the cultivation of root and grain crops, must have been greatly impeded. In England, so high is the repute of this manure, that bones are carefully collected, not only in the larger towns, but also in villages and farm houses, and such is the present demand for them, notwithstanding the heavy importations of guano, and the large manufacture of different kinds of artificial manures, that some thirty or forty thousands of tons, amounting in value to upwards of £200,000 sterling, are annually imported, chiefly from the countries of northern Europe.

Although bones vary considerably in their composition, according to the age and character of the animal, they may all, however, be considered as consisting of two essentially distinct parts; the mineral or earthy, and the organic. The former, amounting to about 60 per cent, consists chiefly of the phosphate of lime, together with small quantities of the phosphate of magnesia, fluoride of calcium, carbonate of lime, and common salt. The organic portion amounting to about 40 per cent, is made up of cartilage and fatty matters. Cartilage by being boiled in water is converted into glue or jelly, and is a substance rich in nitrogen, forming by decomposition much Ammonia, together with carbonic acid and a small quantity of a sulphur compound. Hence it is obvious that bones contain the most important materials for producing the living structure of plants.

As bones in their natural state are very slow in decomposing, it becomes necessary to break them

up into minute fragments, or what is better, when immediate effect on vegetation is desired, to grind them into powder. In this state they can be most effectually applied to the soil, where by the action of rain water, which always contains more or less of carbonic acid, their phosphates are readily dissolved, and are thus brought into a fit state for assimilation by the plant. While these changes are proceeding the organic portion of bones is being acted on by the air, and its decay accelerated, carbonic acid and Ammonia are the results, which with the phosphates, now reduced to a fluid state, become available as food to the growing crop.

The action of bones as a manure greatly depends on the state of fineness to which they are reduced. What are usually called "half inch bones," consist of a number of smaller fragments with a considerable amount in a state of mere powder; and in this condition they are best adapted to agricultural purposes; readily yielding a portion of their organic and mineral constituents to the wants of the first crop, provided the soil be sufficiently moist and porous. Coarse bones being extremely slow in decomposing their use is not economical, and whenever any decided effect is desired to be produced on the first crop, they should be reduced to as minute a state of division as possible. In turnip culture, this is absolutely essential, as the very existence of the crop will frequently depend on the immediate action of the manure pushing forward the growth of the plant during its early stages, beyond the reach and destructive ravages of the fly.

Several methods of accelerating the decomposition of bones, with a view to ensure their full and immediate action, have been, within these few years, proposed and tried. Steaming them, has, in some instances, been found advantageous; but the surest and by far the most economical mode is that of dissolving them by the application of sulphuric acid, (oil of vitriol,) a practice which has now become general in the United Kingdom. Several methods have been practised, but the simplest at present known, and therefore the best adapted to this country, may be briefly stated as follows:

Form a circular wall of ashes about 2 feet high, of sufficient diameter to contain the bones to be dissolved, which should be crushed as small as practicable, and the finer portions, obtained by passing the whole through a sieve, should then be placed around the inside of the wall; forming a thick lining to the barrier of ashes. The coarser bones are placed in the centre, and the surface may be left, if necessary, slightly convex. Pour evenly over the lump sufficient water to originate decomposition, and turn the whole over thoroughly several times during the day, and when the bones are sufficiently and evenly saturated, apply the necessary quantity of sulphuric acid, taking care to continue the stirring of the mass till all the materials are thoroughly incorporated. In a day or two the ashes of the wall hould be mixed with the bones, and the whole shrown into a heap for a week or ten days, when the mass should again be thoroughly stirred, and if necessary, more ashes added, and the mix re in a few days will be sufficiently dry for use. It may be applied either broadcast or by the drill. The amount of sulphuric acid, at the strength at which it is ordinarily obtained in commerce, required for this operation, is from one fourth to one sixth of the weight of bones. It has been proved by the most satisfactory trials, that 8 or 10 bushels of bones per acre, treated in this way produce as much, if not greater effect, than twice that amount applied in a dry state.

Bone manure is peculiarly adapted to exhausted arable land; and upon poor unproductive pastures, its application has been attended with the most striking results The soil in such cases having been exhausted of its phosphates by repeated cropping, or, as in the case of pasture, by the gradual deprivation of these materials by the milk, cheese, and bones of animals, that have been sold off through a long series of years without any adequate return in the form of manure; a liberal dressing of bone dust speedily restores the equilibrium, by returning to the weakened soil, the very ingredients of which it had been deprived.

Bones have been used with great economy and success in connection with farm-yard manure, rape cake, guano, &c.; and mixtures of such kinds, when judiciously combined, have generally advantages over single fertilizers. Bones have been applied with marked success to sickly or decayed fruit and forest trees; in such cases it is not necessary to reduce them to powder, as in a coarser state they continue to act for a greater number of years. For root crops, especially turnips, this manure is of all others the best adapted; and turnips dressed with bones, have uniformly a greater specific gravity than when manured with other substances, and consequently contain a larger amount of nutritive matter, and keep longer in a sound condition. In England, 15 to

20 bushels of dry bones per acre, are considered a liberal dressing for turnips, and when they are dissolved in acid, half that quantity will suffice. The seed and manure are deposited in rows by a single operation of the drill, an implement which has been lately so far improved, as to prevent the seed from coming into immediate contact with the manure, by causing the intervention of a little soil, thereby preventing guano, and such like substances, from endangering the germination of the seed. Large quantities of bones in the cotton districts of England, are boiled for making size, a gluey substance, which is extensively employed in calico-printing. Such bones, however, being deprived of a portion of their organic substance only, the phosphates remaining undisturbed, are found to produce the most marked improvements on the deteriorating pastures of Cheshire; they operate more quickly even than bones unboiled, but their duration must be briefer, and consequently their value diminished, when a series of years or an entire rotation is taken into calculation.

As the highly fertilizing properties of bones have now been fully tested, both by scientific research and practical demonstration, every effort to collect and reduce them to a proper state for the purposes of manure is deserving encouragement; and in a country like Canada, where thousands of acres, formerly highly productive, have become almost sterile by the practice of repeated cropping and non-manuring, bones unquestionably rank among the most powerful and economical means of effecting a restoration.

HENRY CROFT,
Professor of Chemistry.
GEO. BUCKLAND,
Prof. of Agriculture.

Toronto, Nov. 1, 1852.

SUGGESTIONS RELATIVE TO THE PROVINCIAL EXHIBITIONS.

To the Editor of the Canadian Agriculturist:—

Sir,—In submitting for the consideration of the Provincial Agricultural Association and the public, suggestions bearing upon a few necessary changes connected with the present system of carrying out the Annual Provincial Exhibitions, I will not take up your valuable columns for so doing in offering an apology, but urge as my excuse the growing importance of these great *Canadian Agricultural and Mechanical gatherings*, and the favor with which they are countenanced by the intelligence of the land and the public generally, and the desire there exists with the officers of the Association, that the system of *getting up the arrangements*, and *general management* of Exhibitions be as extended, simple and complete, so to attain the object of the Institution as may be practicable. Perfection is not to be expected, but improving changes, based upon the experience of the past may, it is hoped, be gathered and introduced into the present system.

The mode at present followed of making entries of Stock, Agricultural and Mechanical Productions, as well as other articles intended for exhibition, only on the day previous to, and the first and second days of the Fair, appears to have been attended with serious objections, involving hurry and confusion, sometimes unnecessary expense, much uncertainty and great inconvenience; and at the same time leaving the Association and the managing Committee comparatively ignorant until the day of the Exhibition comes round of what is to be presented for Exhibition; who the exhibitors are to be and where they are coming from, or what accommodation it is necessary to make for their reception.

Instead of the present system permit me to suggest:—

1st. That proper ruled sheets with printed headings, in which entries for the Exhibition may be made and filled in, be forwarded by the Agricultural Association, in duplicate, to the President of every County Agricultural Society in Canada West, within two weeks after the list of Premiums for the current year is determined upon, accompanied with sundry copies of such list.

2nd. That intending exhibitors report to the President or Secretary of the local County Society in the County in which they reside, the stock, productions, &c., which they intend to forward for Exhibition,—such stock, productions, &c., to be filled into the sheets under the proper heads: one copy of these sheets to be returned to the Secretary of the Provincial Association, signed by the President, Vice-President, or Secretary of the County Society, at least one month before the date of the first day of the Exhibition, and the other copy retained by the County Society.

3rd. That each County Society, upon transmitting the *entry sheets*, shall, at the same time, forward the names of nine persons residents of the County, who have been nominated by their Society, who promise, or are likely to attend, to act as judges, if required, at the Provincial Ex-

hibition; such persons to be admitted, with their families, to the Exhibition Grounds free of charge.

4th. The entry money, as at present, be paid to the Treasurer of the Provincial Association when the stock, productions, &c., reach the ground, and are presented for admission by the exhibitor, or his agent.

5th. Stock, productions, &c., Foreign or from Canada East, the entries to be made only on, or the day previous to, the first day of the Exhibition, in the manner in which such are now made, viz., to the Secretary and Treasurer of the Association on the grounds, only at an office booth appointed specially for that purpose.

6th. When the premiums are announced by the Secretary, on the last day of the Exhibition, and thereafter published in the Agriculturist, let them be so done under the heads of the respective Counties from which stock, productions, &c., come.

7th. Let the judges be selected and appointed at 12 o'clock, noon, of the first day of the Exhibition; and proceed to discharge their duties on the second day, commencing at 9 o'clock in the morning. After 6 o'clock in the evening of the first day, let no stock, productions, &c., be admitted to the grounds, whether home or foreign, to compete for prizes.

8th. Let the public be excluded the first and second days of the Exhibition, at any rate till such time as the judges shall have got through with their duties, except upon payment of five shillings each.

Should the foregoing suggestions be considered worthy of adoption in carrying out future Exhibitions, I beg to remark in explanation of the same, that the Association will have the interim between the date of the receipt of the *Entry Heads* and the days of the Exhibition to collate the Entries and prepare the books, construct the necessary pens, booths, &c., without hurry, confusion and uncertainty. Each County will be brought into direct competition with others, and and thrown upon its own exertions in the bringing forward and display of its productions; every inhabitant of such County, whether Agriculturist or not, having an interest in the character of the County, and who would desire to see its resources, Agricultural, Mechanical, and Mineral, take a creditable stand among her sister counties, may by applying to the Local Agricultural Society, be informed from time to time of what Entries are being made for the Exhibition, and exert his influence accordingly. In publishing the awarded premiums under the heads of the respective Counties to which the successful competitors belong, persons desirous of purchasing may avail themselves of this knowledge; the public will see at a glance the choice productions of the various Counties, and judge of their comparitive merits accordingly, and a friendly and beneficial emulation and rivalry will be created between the different Counties for the high fame of public opinion. Great complaints have been made heretofore by the public at the delay in opening the grounds for admission, the Judges have also been much inconvenienced by a pressure of persons who had gained admittance, in interfering with them in the discharge of their respective duties; loss has also been suffered by the Association in entrance money, in the delay to open the grounds, therefore is it suggested that the judges be appointed and proceed to the discharge of their duties *as before named*, so to secure, if possible, *at least* two full days for admission to the public.

With your permission I will take the liberty of again addressing you on a future day, on the subject of the Provincial Exhibitions.

I am, Sir,
Yours truly,
WM. MATTHIE.

Brockville, October, 1852.

OUR LATE PROVINCIAL EXHIBITION.

As many of our readers will feel an interest in perusing the published opinions of distinguished Agriculturists from a distance on the Exhibition recently held in this city, we subjoin an article from the "*New York Farmer*," an excellent weekly agricultural paper, published in Albany, by Elon Comstock, Esq., Editor and Proprietor, whom we beg to accept our best thanks for a number of copies of his interesting and instructive journal. We can assure our American friends that the just and liberal spirit in which they conclude their notice of our proceedings, is heartily reciprocated on this side the lakes. In advancing the interests of our common humanity, by promoting the improvement of the noblest and most indispensable of the arts, and the great civilizer of nations, may we both be long distinguished, and render each other all the aid in our power.

The annual exhibition of the Provincial Agricultural Association of Upper Canada was held at Toronto, on the 21st to the 24th of September inclusive. Having had the honor of an appointment as Delegate from the N. Y. State Agricultural Society, we had looked forward with pleasant anticipations to the occasion, as one which would afford us an opportunity of witnessing the representation of Canadian Agriculture, and of Canadian farmers, and of extending our acquaintance with the leading agriculturists of the Province. In this we were disappointed for unexpected engagements prevented our attendance, and we are obliged to rely on the information furnished by those in attendance from this State, in making up our notice of this great exhibition of Canadian industry. Fortunately, however, we are enabled to present from a reliable source the general character of the exhibition. Hon. Henry Wager, President of the New York State Agricultural Society, who with Mr. Butterfield from Utica, went out as delegate, did us the favo to write us from Toronto his impressions of the exhibition, and the kindness extended to the New York delegation. Since his return we have received from him a personal account of the affair, and take pleasure in presenting to our readers some facts with regard to the exhibition.

The enclosure for the show contained seventeen acres, beautifully situated on College Avenue and William street, with a fine grove for cattle, and all the comforts and conveniences for such an occasion. We have before us an engraved map of the grounds, and all the erections from which we judge that our Canadian neighbors are not at all behind us in the preparations for their annual holiday. The building devoted to Fine Arts and the Floral department was large and tastefully decorated. Agricultural Hall, Mechanic's Hall, the President's Stand, President's and other tents, the refreshment tents, Committee rooms, ticket office, and all the conveniences required, appear on the engraving, and were we are told, most conviently arranged, and fitted up for the occasion.

The exhibition was generally good, and although not in former years equal to our State Fair, has been constantly gaining upon us, until in some departments we must yield the palm. The show of swine was far better than ours; of draft horses also superior. In veg tables the display was sufficient to convince any sceptic of the productiveness of Canadian soil, and the skill of Canadian agriculturists.

Floral Hall did great honor to the taste and ingenuity of the exhibitors. The crayon paintings, needle work, and other specimens of female industry and accomplishments, attracted universal admiration, and bore evidence of the attention given to these departments by the ladies of Canada West.

The stock of Canada has been rapidly improving for some years past, as all know who have been accustomed to see the department of "Foreign Stock" at our own State Fairs, in which some choice animals have been exhibited by Canadian breeders. In sheep, particularly the mutton breeds, they greatly excel. But we cannot speak further of the *Show.*

We are requested to acknowledge on behalf of the delegates from this State, the great obligations under which they were placed, by the kindness and unremitting attention bestowed upon them by the President of the Society. Hon. Mr. Street, M.P.P., Mr. Buckland, the Secretary, Messrs. Fergusson, Marks, Thompson, and many others, who contributed to render their visit a most delightful and agreeable one, and caused them to treasure up recollections of their visit which will not soon be effaced. We only regret that we were depived of the pleasure of sharing in the enjoyment of the occasion.

There is no mistaking the fact that the spirit of improvement is abroad among Canadian farmers, and that they have in the last five years, made rapid advancement in their profession. May the spirit of friendly rivalry continue and increase until both countries shall have become fruitful, and bud and blossom as the rose.

We gladly make room for the following remarks in the October number of the *Lower Canada Agricultural Journal,* and take this opportunity of expressing our cordial desire of cultivating more frequent intercourse and friendly relations between the two great Societies of the Upper and Lower Sections of the Province, as intimated by our respectud cotemporary, in his September number. Mr. Evans has already given substantial proof of his sincerity by a donation of a set of the Journal and his other publications to our Board of Agriculture; and should the Agricultural Bill of the Hon. Malcolm Cameron, now before Parliament pass into a law, it will afford many opportunities of interchanging thoughts and forming more intimate relations, by bringing both sections of the Province under one united system, as regards the government of Agricultural Socities, with as few exception as possible.

That the Exhibition was highly creditable to the agriculturalists of Upper Canada, there cannot exist a doubt. The horses, neat-cattle, sheep, and swine, were excellent, affording convincing proof of the skill and enterprize of the farmers of that section of the Province. The show of horses, and of Durham cattle in particular, was very superior. The show of Leicester and South Down sheep was also very good. We were told of prices paid for some of these stock that we would scarce venture to publish, least our statement might be discredited. A few French Merinos were shown of large size, and said to produce a quantity of wool which we did not believe possible, from the appearance of the sheep. We observed that one of the rams had not been shorn this year. These sheep were also said to be sold for what was a very large price, in our estimation. A small lot of Highland cattle were shown, imported by a gentleman from the Isle of Sky. They were of small size but we have no doubt, they might be found a profitable stock for many sections in Canada. Their peculiar form, fine mellow hides, and short legs, prove their propensity to fatten readily; but as for their milking qualities, we are not acquainted with them. There was a great display of fowls. The show of implements was very fair, both of Canadian and American manufacture. We were glad to see that Mr Jeffrey, of Petite Cote near Montreal, obtained prizes for a drill and swing plough, a drill grubber, and a root slicer. This proves that we may have good implements in Lower Canada, if we only purchase them. The fall sown wheat, was of very superior quality, in particular, the sample that obtained the first prize. The Indian corn was excellent, but the specimens of roots were not of very large size. The show of fruit was not extraordinary, though we believe it was generally superior to any we could show in Lower Canada. We have seen numerous varieties of very superior plums in the neighborhood of Toronto. The show of dairy produce was very good, particularly cheese.

There was a very numerous attendance at the Exhibition. We were told that 30,000 persons visited the show ground, on the third day (Thursday, 23d,) and from the crowded state of the extensive enclosure for the whole day, we can credit this statement. The most disagreeable circumstance connected with the Exhibition, was the crowded state of the hotels and lodging places. For ourselves we were so fortunate as to obtain accommodation from a gentleman, Mr. Crew, acting assistant Secretary of the Association, who very kindly invited us to his house, and kept us there until the end of the fair, and to this gentleman we beg to offer our most grateful acknowledgments. At any future Exhibition, the Upper Canada Agricultural Association could not confer a greater favor upon visitors from Lower Canada, whether invited or not, than by procuring comfortable accomodation for them at hotels, for which visitors would be willing to pay liberally. Agriculturists from Lower Canada do not go so great a distance, exactly, to pay complimentary visits, but rather to see the Agricultural productions of the country, to make acquaintance with those who have produced them, and to learn the means by which these results

are obtained. These ought in reality be the motives of agriculturists in attending such exhibitions, or they should not visit them, and we confess they have always been our motives, we were desirous to see hear, and learn and we cared not a straw, about giving or receiving compliments.

Perhaps it may be as well to submit a few general remarks in reference to this Exhibition. Though not an inhabitant of Upper Canada, we were delighted to see the skill and intelligence of the agriculturalists with whom we had the good fortune to have any communication. It is these men, and others like them, that has made the late exhibition an interesting one. It would be in vain that Upper Canada had a good soil, and favorable climate, if there was not skill and capital employed in its cultivation. In Upper Canada, they have a highly respectable class of gentlemen residing throughout the country, mixing and associating with practical farmers, who thus assist and improve each other. These are generally emigants, a large portion of whom, have brought capital, and some both skill and capital to the country. We have not the same advantages in Lower Canada, as very few of those who have the means of proceeding further, settle in that country. There is an unjustifiable prejudice against Lower Canada that prevents the settlers who would be the most useful from settling there. Another cause, that emigrants are anxious to go on to their friends, and settle among those who are known to them, and are doing well, and unquestionably there is a great advantage when coming to a strange country, to be able to make a settlement amongst a skilful and thriving class of farmers, rather than were they are not so. It creates a justifiable emulation to cultivate and manage as well as the best they see about them, and if they require instruction, they cannot fail to learn. Good breeds of live stock have been introduced by settlers who had capital, and they have spread far and wide throughout the country, and their management appears to be well understood. Here is a commencement of the materials which are necessary to constitute a good system of agriculture, and to these causes we may fairly ascribe the present favorable position of agriculture in Upper Canada. We do not pretend to say that all the settlers who arrive in that country are experienced farmers having capital, nor would it be advantageous if it were. Those, however, who have capital, employ such as have none, until the latter acquire both practical skill and sufficient capital to commence on their own account, and then they also become useful farmers. Hence Upper Canada has, at the present moment, skilful farmers in every section of the country who will be sure to maintain the progress of agricultural improvement. A skilful and industrious class of settlers are as necessary to secure the prosperity of a country, as a good soil and climate and skill and industry will frequently overcome the disadvantages of an unfavorable climate and soil. On our first acquaintance with the agriculturalists of Upper Canada, at the Exhibition at Niagara, two years ago, we formed the same opinion of them as we now submit, and the late Exhibition has only confirmed that opinion. On a former visit to Toronto market, we were led to suppose, that beef, mutton, lamb and veal, were of as good quality in Montreal market as that of Toronto. We now, however, admit we were in error, and have no hesitation in saying, that the *general* quality of the beef, mutton, lamb and veal is much superior in Toronto, to either Montreal or Quebec. There may be occasionally as good a show of these articles in our markets as in Toronto, but it is not generally so.

We now beg to say a few words of Lower Canada, and its capabilities for a successful system of Husbandry. First, as to the quality of the soil, we do not believe that it is much, if anything, inferior to that of Upper Canada. There are, doubtless, fine tracts of new land in Upper Canada, but so there is of old, cultivated, and new land in Lower Canada.

In the latter country, wheat will not succeed so well as in the former, but every variety of other grain, with the exception, perhaps, of Indian Corn, will succeed equally well as in Upper Canada, and some better. Root crops, hay, and pasture, on an average, will be more productive in this section of the Province; why then should we not be able to have good stock, good dairies, and profitable farming? It is not, certainly, either the climate or soil that would prevent it, and we have better and more convenient markets. We must, therefore, endeavor to find some other cause why our Agriculture should not be generally as far advanced in improvement as in Upper Canada. There is as good farming in Lower Canada as in any part of America that we have seen; but this we are sorry to be obliged to admit is not the general character of it. We have fairly described what we know of the state of Agriculture in Upper Canada, or rather the results of their system and management, and also, submitted our opinion as to the means by which this system has been introduced, by, we may say, an entirely new population. This latter circumstance of a new population introducing their own system of husbandry may have been favorable to the establishment of a more perfect system than would be possible, where a defective system has been previously in operation for a long period. All these matters deserve serious attention. We know by experience, it is much less difficult to establish a good system of husbandry, (if we know it,) in a new country, than in an old country, where defective modes of farming have been long practised. In the first case there are not any old customs or prejudices to be overcome, but in the latter case, we have all these difficulties to contend with, when attempting to introduce a new system of Agriculture. We would strongly recommend parties interested in Agriculture in Lower Canada to visit Upper Canada, and their Agricultural Exhibitions, and they will be much interested, and acquire much useful information. There is nothing like seeing and judging for one's self. It will be easy to perceive the lively interest that is manifested by a large proportion of the population, in the progress of Agricultural improvement. It would be difficult to persuade the citizens of Montreal to subscribe six or eight hundred pounds currency towards an Agricultural Exhibition, as they have done in Toronto.

We hope it may not be supposed from what we have stated, that Agricultural improvement is not progressing in Lower Canada. On the contrary, we can assure our readers that the progress of improvement is very satisfactory, and there is not a doubt but it will advance rapidly when the advantages of an improved system is more generally known in the country by the rural population. The cultivation of root crops have surprisingly extended within the last two or three years, where they were never before cultivated, and the Canadian farmers are becoming fully sensible of the value of these crops. Improved husbandry does not so generally prevail in this section of the Province as in Upper Canada, but we confidently hope we shall not be long subject to this reproach, and however greatly we may admire the latter country, and her agriculturists for their skill and industry we would not exchange the numerous advantages of Lower Canada for that of Upper Canada.

On the evenings of Wednesday and Thursday, several addresses were delivered in the St. Lawrence Hall to crowded audiences. On Wednesday, Professor

Buckland delivered an excellent lecture, and gave full exposition of the manner in which he proposed to conduct the Experimental Farm which had been placed at his disposal on the College Grounds, and we have no doubt the farm will succeed under his able management. On Thursday evening the Minister of Agriculture, the Hon. Malcolm Cameron, addressed the meeting, and gave a full explanation of the duties which would devolve upon the proposed Bureau of Agriculture, and also explained the provisions of the new Agricultural Bill now before Parliament, for Lower Canada. It should be very satisfactory to Agriculturists, that they will now be directly represented in the Government, and we have confident expectations that it will have a most beneficial influence upon our Agriculture. We were glad to hear from the Superintendent of Education in Upper Canada that he was in favor of introducing Agricultural Books into the Common Schools, for the study of pupils.—This is a measure we have advocated in our own and other Journals for many years, and we had come to the conclusion that Dr. Ryerson was opposed to it, as we did not perceive that the plan was advocated in the Journal of Education, published by that gentleman. It appears, however, that he is now disposed to introduce this mode of primary instruction, and we have no doubt of the advantageous results. All we regret on the subject is, that our proposition did not meet with more favor long ago, as it was quite as necessary ten years ago as it is now.

It is our firm conviction that if agriculture in Lower Canada should not generally be so far advanced in improvement as in Upper Canada, the fault is not in the soil, climate, or situation. The ravages of the wheat fly was a great drawback to the Agriculturists of Lower Canada, from which the farmers in Upper Canada were comparatively free; but now they are introducing a greater variety of crops, and will not be so much depending upon wheat as heretofore, and as they are at present in Upper Canada. The breeds of neat cattle are not so large in Lower as in Upper Canada; but it remains to be proved to our satisfaction, whether a moderate sized animal of good form is not better adapted for this country than a very large size, *and will be more profitable for the farmers.* The winters are undoubtedly more severe with us than in the Upper Section of the Province, and must necessarily require a well sheltered yard, and warm stabling for animals, so as to equalize our temperature to that of Upper Canada. If we can do this, and produce as much food from a given quantity of land as they can in the latter country, we cannot see that the severity of the winter injures our circumstances much. It is very desirable that we should be fully sensible of the advantages of our situation. If we attempt to find a justification for bad farming, in any imaginary inferiority of soil, climate, or situation, we may at once give up all hope of improvement. Fortunately, *we have abundant proof that our opinion of Lower* Canada is correct, in the many excellent farms to be met with in every section of the country, where justice has been done to them, and it will not be supposed that these farms are favored by situation or climate, more than those which surround them.

There are some other things in which we are far behind our Toronto friends. For instance, in beautiful shaded walks, such as the College Avenue and College Grounds at Toronto. There is not so much as a perch of such roads, walks, or grounds for the accomodation of the citizens of Montreal. Our citizens may walk the dusty or muddy streets, or remain in their houses, which they please. In one point, the wharfs at Montreal are superior to any we have seen, but they are not exactly a suitable place for walking except for once, to see them. We cannot but say, that the want of suitable walks for exercise and recreation in a city of 60,000 inhabitants is a certain indication of the want of refinement in those who have power to provide such accomodation. *In the British* Isles, where shade is not so necessary as here, we could seldom see a town of one fourth the size of Montreal, without beautiful shaded walks, for the public use. Men of wealth may have such advantages in their own gardens, but this should remind them, that those who are constantly and laboriously employed, require fresh air and recreation much more than they do.

IMPROVED BREEDS OF CATTLE.

To the Editor of the Agriculturist.

DEAR SIR:—I should not, at this busy season of the year, and with sickness still in my family, have occupied my time, nor have taken up further space in the columns of your valuable journal with the above subject, but that I feel, from the tenor of Mr. Tye's letter in your August number, imperatively called upon to notice its contents.

Mr. Tye, it appears is almost as incensed with me as Mr. Sotham, because I won't write and act against my own conviction, or in other words, that because I won't think and write as he and Mr. Sotham does regarding the merits of the two separate Breeds of Cattle they each patronise, that I am not privileged—to speak or write at all on the subject.

I appeal to your candour, Mr. Editor, and to the decision of your readers, if such is not the case? Is it possible then, let me ask, if any controversy on the subject fraught with *some* importance at least to *some* of your readers can be carried on with good feeling or usefulness to any party? Mr. Tye commences by mystifying and falsifying my statements which appeared in your number of July 1851, regarding the improved breeds of cattle. This I think, you will allow should not pass without some notice from me. He commences by saying that I asserted that the Durham cattle deserved more premiums, because they were more numerous than any other improved breeds, and insinuates that I have stated *that* as the only cause. And again, that I have spoken disparagingly of a breed of cattle that Mr. Sotham patronises and has imported. To this, as well as to the former accusation I unequivocally dissent. And it really seems strange to me that Mr. Tye, after a twelve months study of the subject, should not have been able, before now, to dis-

cern that my letter would admit of the construction he now puts upon it.

Is it, that he begins to think Mr. Sotham has got too hard a rap in my last letter in your July number, and that he thinks he ought to sympathise with him a little in the matter; or is it that Mr. Tye, having a few good Devons that he wishes to dispose of, is desirous of calling attention of purchasers to his Herd. I cannot but infer this after his long silence, as *I* have not been writing of late about *Devon* Cattle.—What, therefore, can be his motive for stirring a fresh a subject on which he has been silent nearly a year. It would seem from Mr. Tye's remarks that he has been very much at a loss for a subject to write upon in order to bring his Devons into special notice. I should be glad to have it shown me *how* the following sentences can possibly be distorted into implying *that* which my writings do not convey, and which they never were intended to convey, but which Mr. Tye is desirous they should. They ran thus in my letter of July 1851. "As you have, I conceive, *sufficiently* explained to Mr. Tye the reason why more premiums are offered to the Durham, than to other pure breeds. I need not further notice that part of his letter, than remark, that in my opinion it conclusively shews that as the number of Durhams is far greater than other pure breeds in the country, they must be held, generally speaking, in greater estimation for all purposes, by the Agriculturist; or why should their numbers be so much larger! as there has been the same opportunity afforded the Farmer to patronise other breeds; why has he not availed himself of it? for this simple reason, that the *Durhams*, on the whole, if properly selected and bred with skill and care pay better! It is a fact known to all, that the Durhams, from a Herd of high character, and in an able breeder's hands fetch a *far higher* price for breeding purposes than any other pure breed in this country. They are frequently sold, to my own knowledge, from $150 to $400—and even beyond that I might safely go. Does any one ever hear of Herefords, Devons, or Ayrshires, fetching that price in this country, or anything near it? I think this circumstance alone is a pretty cogent reason for the Durhams being in greater numbers and more extensively patronised than any other pure breeds. But there are excellencies in the breed that I will now name, which doubtless induce people to patronise them so extensively, &c. &c."

Pray, Mr. Editor, have I here *asserted* that the *only* reason (as Mr. Tye would wish it to appear) why Durhams deserve to be patronised, is on account of their numbers in this country? Surely Mr. Tye cannot read plain english, or there is no excuse for him perverting the real meaning of the above extract in the manner he has. He, however, probably has his own reasons for this plain misrepresentation of what I have actually written. And he embellishes his article with extracts from the *Colonist* and *Genesee Farmer* respecting the Fair held at Brockville and Rochester by these papers last year, in quite a cursory manner. The former he quotes to this effect "Cattle, nothing extraordinary; a number of fine Devonshire, and these seemed to be getting greater favourites with the farmers than the Durhams, which did not seem to be so much prized as formerly," and yet the gentleman who wrote this inaccurate statement, and who of course could not be at the fair, or he would not have written such a paragraph, is informed as well as Mr. Tye, by the Editor of the *Agriculturist* in an extract from the Society's Books that the *Durhams* were nearly double in number those of the Devons or Ayrshire, and the number of Herefords were as usual! And two years previously to that the Durhams were 54 in number; Devons, 9; Ayrshire, 12; Herefords, none! And yet Mr. Tye thinks there ought to be as many prizes offered for these latter breeds as for the Durhams, when year after year there is but two or three individuals to take most, if not all the premiums, and in one of the breeds (Hereford) *no cattle are ever shown*! What reason, I would ask, can there be in any one writing so absurdly? If farmers do not bring the cattle because they have not them to bring, where is the use of offering the premiums for mere form's sake? The Directors, I have little doubt, have been guided somewhat by these considerations, in their decisions as to the number and amount of premiums offered. At any rate, it is as you assert, a subject that will admit of a difference of opinion. Again, who would expect to find in the extreme easterly part of the province, the Durham breeds of cattle to any extent. But even in that section of the province, the numbers have considerably increased of late years. But if Mr. Tye will take the trouble to hunt up the number of cattle shown at each of our *other* Provincial Fairs, he will find that at every Fair the number in favour of Durhams is very far greater than that at Brockville. Mr. Tye then goes on to say that the Genesee Farmer asserts that more than half the number of cattle exhibited at Rochester last year, were Devons. This is utterly untrue, I was there myself, and know it to be so, and could I just now lay my hand on a return which I have by me I would give you an accurate statement from the Secretary's Books. You shall, however, have it shortly. But I well recollect its being stated to me by a Devon breeder from England and in this country also, that fully one third of those exhibited as Devons, were merely grades. But I must candidly admit

myself, as he did also, that there were a large number of fine animals there of the pure breed. But Mr. Tye should not be led away with the erroneous impression that, because he has met with that statement that the New York State Farmers have (which he would almost make appear) discarded all other breeds for the Devon. Not quite so fast Mr. Tye if you please, as you are overlooking a most essential point in arriving at a conclusion so inadmissible, for you must know that in different parts of New York State one improved breed is patronised more than another, and in many Counties immediately around Rochester the Devons mostly prevail. and in all probability this will be the case at the forthcoming Show at Utica. Mr. Tye, however, will not find that the Devons have preponderated, but that the Durhams have, in great numbers at every other State Fair except Rochester. And so Mr. Tye thinks, or would wish your readers to believe that my having set forth the merits of the Durhams as I and others have found them, as a Herd, and for having spoken, *as I thought*, in the most praiseworthy way of the Herefords and Devons, as the following extract also from my letter of July 1851 will shew, except in not admitting that the Herefords are famed as great milkers, is likely to do harm! In this instance at least, I must certainly accord to Mr. Tye a *peculiar faculty* of foresight that I and many of your readers happen not to be blessed with. I have hitherto thought, and I firmly believe, notwithstanding Mr. Tye's sophistry, that I shall continue to think that a *properly conducted* discussion on this, or on any other subject, is generally attended with advantage to some party, and regardless of Mr. Tye's prediction, I really cannot yet see *where* any harm is likely to accrue from any thing I have either written or advanced on the subject, confining myself, as I have done to fact, and stating nothing but what you know to be true. That part of my letter to which I have reference, and to which I beg leave to call the attention of yourself and readers, after having stated that I never saw or heard of the Herefords being patronized in any of the great Butter or Cheese counties in England with which I was familiar, runs thus:—"The Herefords, however, no one can dispute are a beautiful and profitable breed of animals, (I have grazed hundreds of them for Smithfield market) and doubtless there are good milking cows to be found amongst them, and it would indeed be strange if it were not so, in such an extended and old established breed. Then again the Oxen of the Hereford breed, as well as of the Devon are considered to be superior to the Durham for the yoke. This may be so, or it may not, for *when* and *where* let me ask has the test been fairly made?" Again, further on in that communication I state as follows "I do not wish, Mr. Editor, that any one who may read this letter should, from anything I have advanced, be prejudiced against one breed or the other under discussion; I have merely stated what I know to be fact, and it will only go for what it is worth; but I would say let each individual try for himself which breed suits his soil or herbage, and his location or his purpose best. There ought to be great consideration paid to this circumstance in the selection of animals either for breeding or feeding purposes,"—And in conclusion I add, "I think both the Herefords and Devons have many excellencies, that they are splendid breeds of cattle as well as the Durhams, and will at all times, if judiciously bred, please the eye, with their graceful form and symmetrical beauty, as well as fill the pocket. But I must in conclusion say, from my own experience, added to that of others, whom I have frequently conversed with on the subject, that for all purposes upon the farm, the Durhams will decidedly pay the most money to the Breeder, Dairyman and Feeder. If however, Mr. Tye, or any other gentleman can shew to the contrary from their experience, I shall be happy to hear of it, and see it proved." Now, Mr. Editor, in the name of all that is candid and honorable, what pretext is there for Mr. Sotham or Mr. Tye taking up this discussion with the manifestly ill-temper and indiscretion they have done? One says, that I have no business to write or say a word about what I and others have found, from years of experience, to be profitable and useful, and that I have taken a false position; the other gentleman says, that I was not entitled to courtesy from Mr. Sotham, because I wrote disparagingly of a breed of cattle he imported and patronised. Now, if such sentences as those I have quoted from my former letter, and which, as plainly appears, have given such umbrage to Messrs. Sotham and Tye, can bear the construction which these gentlemen put upon it, with all the tortuosity they can bring to their aid, I must at once and for ever confess that I no longer know anything of the meaning which the English language is capable of conveying to the mind. Mr. Tye states that he hopes the Hereford breed may be more known in this country. With all sincerity can I say so too, for it is perfectly clear to me; as it must be to all breeders, that the more *pure blood* we can infuse into our herds, the better will it be for the country,—notwithstanding the patronage that some gentlemen wish still to give to that race of *critters* which stand *starvation* best! I hope, Mr. Editor, to have a word to say on the subject by and by.

I must, however, before I drop my pen, beg

to express the gratification I have derived from a perusal of the proceedings at the March meeting of the Farmer's Club of Hamilton Township, of which John Wade, Esq. is President. The merits and profits of the Durham breed are truthfully portrayed, and ably discussed, and I cannot but think would have proved quite edifying even to Messrs. Sotham and Tye had they favoured the meeting with their presence. I think great credit is due to Mr. Wade for the exertions he has made in introducing so useful a breed of cattle in this vicinity, and for bringing a subject of so much importance before the meeting. I hope that he will still follow up his exertions, and receive the merited reto which ward he is entitled. And at a meeting of the Farmers of the United Counties of Frontenac, Lennox, and Addington, held subsequently at Kingston, I have still further pleasure in noticing the very able and business-like address of their much respected President (Angus Cameron, Esq.) whose allusion to the Durham breed, will not I fear, assist Mr. Sotham much in the war he has made with so little effect, against that splendid and highly popular herd.

What tack will Mr. S. get on now I wonder to evade such assaults and proof of the enemy. Who knows, but he will endeavour to find another Rev. Mr. Smythies,with the assistance of the partizan Mark Lane *Express* to aid him in his efforts.

The far-famed Durham Bulls "Belleville" and "Bamboo"! and the Short Horn Heifer "Buttercup" alluded to by Mr. Cameron must indeed have been *miserable animals* that they could not take *more premiums* against all other breeds. But perhaps they would, had there been more to take. Does not Mr. S. know, however, that innumerable instances of the kind could be produced, if hunted up. To the latter part of Mr. Tye's letter, I shall have a word in your next number, if time and circumstances will permit, relative to grade cattle and sheep, for I feel that I ought not to have infringed so much on your columns, but the extracts I have thought it necessary to make from my former letter, have lengthened this communication very materially.

I am Dear Sir,
Sincerely yours,
H. PARSONS.

Guelph, Aug. 25, 1852.

CULTIVATION OF FRUIT TREES.

Mr. Editor,—I have read some very interesting essays in your useful paper on the culture of fruit, all of which I dare say are very good and very true, but I am still at a great loss to know how to get at the best method of cultivating fruit trees so as to know how sufficient moisture is to be kept in a soil naturally dry during the extreme heat and drought of summer, especially if the ground is kept perfectly loose by frequent stirrings, and nothing allowed to grow on it to prevent the powerful rays of a midsummer sun from coming in immediate contact with naked and loose soil, and consequently heating and drying it to an indefinite extent. I have been very careful this year to stir the ground frequently under my trees and to allow nothing to grow on a space as large as the top of the tree. In the first part of the summer the trees grow very well, and so they do yet in moist ground, but in dry ground they seem to suffer much more from drought than they ever did before. The leaves on many of them are withering, and several of them appear to be dying, which I think they would not do if the grass or grain had been suffered to cover the ground. Most cultivators say that we would raise much better fruit if we would stir the ground thoroughly and frequently without raising any other crop on it, and some say it is the best way to have the ground under the tree covered with stones which would keep the ground cold and moist, and prevent weeds and grass from growing without having the roots cut and torn by the plough or spade which I should suppose would injure the tree. I see that in the *Agriculturist* page 215 Vol. III, an American gentleman has recommended mulching very highly which no doubt is very good if it can be properly done. He says not with straw or anything of the sort, but with ground if possible, as far as the roots extend. Now this gentleman is probably perfectly right, but I do not understand him. Does he draw fresh earth into his orchard and continue to fill it up year after year? Surely not. I have no opinions to offer upon those subjects myself, for I have not had sufficient experience. But perhaps you will condescend to enlighten my mind a little farther on the subject, through the medium of your paper, as it is a subject upon which the majority of Canadian farmers, as well as myself, are quite too ignorant and most of them more careless than ignorant.

A YOUNG FARMER.

ON THE GROWTH AND PROSPECTS OF FLAX IN THE COUNTY OF PORT NEUF LOWER CANADA.

To the Editor of the Agriculturist.

Sir,—On the river Port Neuf in the Parish of Cap-Sante there stands the largest paper-mill in Canada. A stranger to the manufacture views with wondering gaze the various stages

of the process from the sorting of the rags, to the Fourdrinier machine, and the collection of the continuous web with its accumulated electricity after its passage over the drying cylinders. Much curiosity is also excited on witnessing the operation of ruling the paper, and the no less interesting action of the almost self-regulating machine, attended by a child, for cutting the paper web to the required sizes.

Linen rags are well known to make the best paper stock. With a view to encourage a more extensive use of this fabric. and also to procure material for the manufacture of twine, the proprietors of this establishment have erected a scutching-mill capable of finishing 100 bundles of flax per day, each weighing 16 lbs. Flax-seed is furnished to those farmers that have none, and the straw is contracted for at £2 per 100 bundles. Three pounds of fibre are usually obtained from one bundle of straw. The grower is charged 2d. per lb. for scutching, a higher rate than can in future be maintained, but which it was necessary to impose in the infancy of the manufacture. The tow waste valued at 7 per cent., is made into paper, but those having flax scutched at the mill are entitled to half the tow.

In this County, and in Lower Canada generally, flax is sown, if on low grounds, on old pasture or meadow-land; on upland, it is sown after oats or barley. One ploughing only is given, and that in spring. This preparation of the soil is far from what the flax crop demands. The crop is never weeded, at least in the acceptation of that term as used in Europe. A large thistle may be occasionally pulled. This accounts for the state in which flax-seed is seen at oil mills before screening, containing a great variety of seeds which would never find their way there with ordinary attention to early management.

The seed is invariably allowed to ripen, and the reason assigned is, that otherwise the fibre could not bear its subsequent treatment in scutching and heckling. The fibre of those plants that are not matured at the time of pulling is said to be lost in scutching. After pulling, the flax is spread for three or four weeks, or until it is sufficiently dew-rotted, on the ground on which it grew; meadow or pasture land is always to be preferred. It is turned occasionally to prevent germination of the seed, and before lifting, that it may be dry. When taken up it is bound in bundles with withes, and the seed threshed off before drying.

Water-rotting is seldom practised, but a rottery on Schenck's principle is likely to be got up, and the flax then saved on the Courtrai system.

Drying by fire, which all must condemn, is a common practice. Three forked stakes are driven into the earth with three others about nine feet distant. Poles are laid on these on which the flax is evenly spread about four feet from the ground. A fire is applied beneath which renders the flax brittle for the brake. This is a very simple implement used before scutching which greatly facilitates that operation. A good hand-scutcher can finish five or six bundles per day, yielding from fifteen to eighteen pounds of fibre. The heckle consists of coarse iron spikes, about twenty four in number driven through a thick board in parallel rows. These serve to separate the fibre. A correct estimate of the per centage of heckled flax obtained by hand-labour from well cleaned fibre cannot be made as applicable to this country from the fact that little attention is given to the collection of data serving as material for calculation or comparison, combined with inferior management. Flax growers here can hardly give an approximation to the quantity of straw or weight of fibre grown per acre, or of the expenses attending its cultivation.

If the produce of an acre is estimated at two tons of straw. and the price at £3 per ton, the farmer will receive for straw £6. Estimating the seed at sixty-four bushels at sixpence per bushel will be £1 12, making a total of £7 12 per acre. Deduct from this the cost of seed, say two bushels at five shillings per bushel, all the other expenses £2, leaves £5 2s. per acre, on an average crop of flax.

The embryo of a large manufacture of flax is even now visible in this section of country. Its cultivation in small patches for domestic use is gradually giving place to its growth for market on an extended scale, mainly owing to the enterprise of Messrs. McDonald and Logan an eminent manufacturing firm, in whose hands its introduction as a staple is secure.

I am, Sir,

Your Obt. Servt.

A. KIRKWOOD.

Port Neuf, Aug. 12.

MODEL FARMS—AGRICULTURAL EDUCATION.

STAMFORD, C. W. Aug. 30.

To the Editor of the Canadian Agriculturist.

SIR,—In the August number is the report of the United Counties of Middlesex and Elgin recommending the establishment of a mode, farm with a good and well selected agricultural library, as one of the best means of increasing true and correct information on the theory and practice of the art.

Before any actual expense is incurred, the President and Directors are requested to take a second sober thought as to *how* a model farm can and will advance the interest of agriculture, beyond, the means at present open to every active and enquiring youth who intends to make agriculture a profession.

A lad of fourteen brought up on a farm must know all the practical details, or he will be a useless student at the model farm, the library will assist him. but is this more than he can learn at home with a few dollars expended on the periodicals of the day; these will teach him to cultivate a farm and raise crops if industrious, to carry theory into practice.

Not so with stock, a good judge is one of *nature's* favourites, like painters, poets, and musicians; the gift is inherent, it cannot be learned by books, lectures, or even in the field, it belongs to its owner and comes without study of any kind; experience may improve, but natural ability will always be more than a match for book learning in this important department. A good judge will always have good stock for the simple reason he knows how to select it.

To purchase, build, and stock a farm of 100 acres will require a considerable outlay, and what more can be done with this 100 acres than is practised every day upon thousands and tens of thousands of acres in a good state of cultivation, or by any one of the Society? Labour and manure are the great and efficient agents in productive farming, and if a well qualified manager is not procured the great object will not be obtained, and likely the society will have the difficulty of finding a good farmer and a good judge of stock in the same person. The President and members would do well to enquire into the present state of those model establishments in France, Germany, Switzerland, &c. which have outlived their founders and supporters; talent, if employed, must be rewarded or home will be as good as the model without the expense.

That a well conducted school would be an advantage in connection with the model farme or without it is not altogether Utopian, if a proper teacher can be procured and liberally paid for his services. Here again *all* depends on the person employed, if any peculiar advantage is to be gained over and above what the district school should afford.

By each one in his school district supporting and encouraging a good teacher, a good practical education could be gained at home as a two years residence at the model could give, by concentrating the home resources on the district school, a teacher of superior talent could be employed, and a higher standard of the *useful* only be brought into full action, if all parents and each teacher would ask *themselves this one* simple question, what kind of instruction does my child or my pupils require to render them useful members of society? The answer would be reading and *mental, not slate arithmetic*; the young mind should be roused to activity by being daily exercised in the first four rules mentally and apply to practice in the every day business *of social life. With dollars and cents a smart* lad of eight or nine would thus master reading, and as much of arithmetic as he can employ to advantage in after life. If a few require more let the few learn, *not all, and the after years* devoted to the study of language so as to be able to write correctly and speak with propriety; and this can be learned at home, if proper means are taken to write a handsome letter or make a common sense speech is the aim and end of all school learning, let the pupils study the *useful*, and the *useful* only, and the point will be easily gained.

Yours, &c.

JAMES JONES.

WOOL FROM PINE-TREES.

Interesting accounts have recently appeared in foreign journals of a novel branch of industry carried on in Silesia, combining so much of ingenuity and utility, as to render a summary of the information very acceptable to those who are seeking for new sources of employment or of profit. It appears that in the neighbourhood of Breslau, on a domain known as Humboldt Mead, there are two establishments alike remarkable; one is a factory for converting the leaves or spines of the pine-tree into a sort of cotton or wool; in the other, the water which has served in the manufacture of this vegetable wool, is made use of as salutary baths for invalids. They were both erected under the direction of Herr von Pannewitz, one of the chief forest-inspectors, and the inventor of a chemical process, by means of which a fine filamentous substance can be obtained from the long and slender leaves of the pine. This substance has been called *Holz wolle*, wood-wool, from a similarity in its quality to that of ordinary wool; it may be curled, felted, or spun in the same way.

The *Pinus Sylvestris*, or Scotch fir, from which thi new produet is derived, has been long esteemed in Germany for its many valuable qualities; and instead of being left to its natural growth. is cultivated in plantations of forest-like extent. In this way, many parts of a vast dreary, sandy surface, are turned to good account, for the tree grows rapidly on a light soil, imparting to it solidity and consistency, and affords shelter to the oak, which, under such favourable circumstances, acquires such vigour of development as to outgrow its protector. About the fortieth year of its growth, the pine yields considerable quantities of resin; and the value of the wood for building purposes, and for constructions immersed in water, is well known. Mr. Pannewitz has however, added another to its list of useful applications; and if the leaves can be employed as described, the *Pinus sylvestris* may become an object of culture in countries where it is now neglected.

The acicular leaves of firs, pines, and coniferæ in general. are composed of a bundle, or fasciculus, as a botanist would say, of extremely fine and tenacious

fibres, which are surrounded and held together by thin pellicles of a resinous substance. If this substance be dissolved by a process of coction, and the employment of certain chemical re-agents, the fibres can then be easily separated, washed, and cleansed, from all foreign matter. According to the mode of treatment, the woolly substance is fine or coarse, and is employed as wadding in the one case, and in the other as stuffing for mattresses. Such, in a few words, is an explanation of Mr. Pannewitz's discovery. He has preferred the *Pinus sylvestris* to other species because of its spines: but there is reason to believe, that it is not the only kind which may be worked with advantage.

There is said to be no danger in stripping the trees, even while young, as they only need the whorl of spines to be left at the extremity of each branch, in order to continue their growth; all the other leaves may be removed without damage. The gathering should take place while they are in their green state, for at no other time can the woolly substance be extracted. This operation, which takes place but once in two years, affords employment and pretty good wages to a number of poor people, some of whom will collect two hundred pounds in a day. The yield from a branch the thickness of the finger is estimated at one pound, and a beginner will strip thirty such branches in a day. In the case of felled trees, the work proceeds with great rapidity.

The first use made of the filamentous matter, was to substitute it for the wadding used in quilted counterpanes. In 1842, five hundred counterpanes so prepared were purchased for the use of the hospital at Vienna; and, after an experience of several years, the purchase has been renewed. It was remarked, among other things, that the influence of the *wood-wool* prevented parasitic insects from lodging in the beds, and the aromatic odour arising from it had been found as beneficial as it was agreeable. Shortly afterwards, the Penitentiary at Vienna was provided with the same kind of quilts; and they have since been adopted—as well as mattresses filled with the same wool—in the Hospital de la Charite at Berlin, and in the Maternity Hospital and barracks at Breslau. A trial of five years in these different establishments has proved, that the wood-wool can be very suitably employed for counterpanes, and for stuffed or quilted articles of furniture, and that it is very durable.

It was found that, at the end of the five years, of wood-wool mattress had cost less than one made a straw, as the latter requires an addition of two pounds of new straw every year. In comparison with horse-hair, it is three times cheaper; it is safe from the attack of moth, and in a finished sofa no upholsterer would be able to distinguish between wood-wool and hair stuffing.

It has been further ascertained that this wool can be spun and woven. The finest gives a thread similar to that of hemp, and quite as strong. When spun, woven, and combed, a cloth is produced which has been used for carpets, horse-cloths, &c.; while, mixed with a canvas warp, it will serve for quilts, instead of being employed in the form of wadding.

In the preparation of this wool, an etherised oil is formed, of an agreeable odour, and green in color, but which an exposure to the light changes to a yellowish-orange tint, and which resumes its original colour on the light being again excluded. Under the rectifying process it becomes colourless as water, and is found to differ from the essence of turpentine extracted from the stem of the same tree. Its employment has proved most salutary in gouty and rheumatic affections, and when applied to wounds as a balsam; as also in certain cases of worm disease and cutaneous tumours. In the rectified state, it has been successfully used in the preparation of lacs for the best kinds of varnish: in lamps it burns as well as olive oil; and it dissolves caoutchouc completely and speedily. Already the perfumers of Paris make use of this pine-oil.

With respect to the baths; it having been discovered that a beneficial result attended the external application of the liquor left after the coction of the leaves, a bathing establishment was added to the factory. This liquor is of a greenish-brown tint: and, according to the process, is either gelatinous and balsamic, or acid; formic acid having been produced in the latter case. When an increase in the efficacy of the baths is desired, a quantity of extract obtained by the distillation of the etherised oil above mentioned, which also contains formic acid, is poured into the liquor.—Besides which, the liquid itself is thickening by concentration, and sent out in sealed jars to those who wish to have baths at home, thus constituting a profitable article of trade.

We understand that these baths have been in operation for nine years, with a continual increase of reputation and number of visitors. That the facts are not exaggerated, would appear from medals having been awarded to M. Weiss, the proprietor and manager, by societies in Berlin and Altenburg, for the extraordinary results produced. As likely to lead to a new development of industry, the processes are especially worthy of attention.

The catalogue of utitities is, however, not yet exhausted; there is one more with which we bring our notice to a close. After the washing of the fibre, a great quantity of refuse membraneous substance is obtained by filtration. This being moulded into the form of bricks and dried, becomes excellent fuel, and gives off so much gas from the resin which it contains, that it may be used for lighting as well as heating. The making of a thousand hundred-weights of the wool leaves a mass of fuel equal in value to sixty cubic yards of pine-wood.—*Chambers' Journal.*

PUBLIC DEBT OF CANADA.

The amount of debt due by the Province up to 1st August, 1852, was $4,635,999 3s 3d. Of this sum £1,157,463 8s embraces various grants for the construction of Public Works by the Legislature of Upper Canada, prior to the Union;—£177,498 13s 4d embraces Loans by Lower Canada, prior to the Union, for Montreal Harbour and Turnpike Trust, and £22,192 of it for Quebec Turnpike Trust. The Imperial Guaranteed Loan under acts 4 and 5 Vic., for Public Works amounts to £1,825,000. Grants by the Provincial Legislature subsequently for Public Works including payment to Welland Canal Share-holders, £1,475,019 11s 11d. The annual interest for this debt amounts to £226,568 8s 7d, averaging from 4 to 6 per cent, payable to the Bank of England, Glynn & Co., Baring & Co., and Bosanquet & Co.

Bank of Upper Canada	£250,085	14	9
Bank of Montreal	119,428	11	1
Bank of British North America	77 850	0	0
Banque du Peuple	39,083	6	8
Do do	69,826	2	2
Commercial Bank M. D	54,854	9	9
Quebec Bank	15,068	2	8
City and District Savings Bank, Montreal	11,000	0	0
Gore Bank	3,097	10	5
City Bank	1,316	3	8
Total,	£602,526	14	6

The Guelph Fall fair was held on Monday last, and was beyond comparison the largest and best ever witinessed in the locality. Cattle changed hands at prices 20 to 25 per cent in advance of recent rates. Yokes of Oxen of fair quality fetched $60 to $65; three year old Steers $45; and two years old $35; cattle for the butcher were greatly in demand.

HIGHLAND SOCIETY'S SHOW AT PERTH.

TRIAL OF REAPING MACHINES.

The trial of the competing reaping machines took place on Friday at Muirton farm, within a mile of Perth. Shortly before the time appointed two o'clock, the crowd collected on the ground could not amount to less than from ten to twelve thousand people—from the carriage-in-four, with outriders, to the most humble labourer—a large proportion consisting of females: all parties appearing to take the greatest interest in the exhibition. The judges appointed by the Highland Society were the whole judges connected with implement department. A few minutes before two, the first reaper, Mr. Bell, started in fine style on a field of potato oats; the crop rather *light upon a clay soil*, the surface of which had been rendered smooth by the roller in spring, but owing to the deep furrows with high-formed ridges, being rather a severe trial. The horses and driver being apparently familiar with the work got on in an admirable manner. Nothing could be cut more evenly and regularly, the height of the stubble not exceeding three inches. After the judges were satisfied with the machine in the oatfield, the next competing implement, Hussey's made by Crosskill, Beverly was tried. This machine, in crossing the ridges, could not surmount the deep furrows. It, however, cut the oats up and down the ridges in a very efficient manner, leaving the stubble perhaps one or two inches higher than that left by Mr. Bell, but it did not cut clean where there was much bottom grass. The machines were next removed to a barley field—a very full crop, partially laid and twisted. This was cut by Mr. Bell's machine in an equally efficient style with the oats, cutting the corn, when closely lying towards the machine, as neatly as when it was standing. Mr. Hussey's machine did not cut the lying barley satisfactorily. The next was a wheat field, which was a very luxuriant crop—the variety Fenton—and which, to appearance, will yield about six quarters per imperial acre, the crop being after beans. The variety of wheat made the cutting of the straw a severe test of the powers of the implement; while the furrows being also at an angle to the line of cutting, added to the difficulty. Mr. Bell's machine cut the wheat successfully, leaving a stubble from two to three inches high. Mr. Hussey's machine was rather overtaxed by the luxuriance of the crop. On Thursday, Hussey's machine made by Crosskill for Lord Kinnaird, was tried near Errol, on a field of barley, and cut the crop in a very workmanlike manner. The crop and ground were extremely favourable for the working of the machine; the crop standing rather light, and similar to the crops in America. This may explain the acknowledged success of these machines in America, and also wherever the crops are comparatively light. It may be necessary to explain to our readers that these machines were drawn by two horses, which went at a quick step, and as the grain was cut, a dozen of labourers followed binding and stooking up the grain. The judges in their report, unanimously found that Mr. Bell was entitled to the full premium for the following reasons—that his machine cut the corn in the best manner with the least waste, quickest as to time left the corn in the best order for gathering and binding, and was in every point superior to Hussey's reaping machine. After the machines were removed from the ground, not being permitted to approach them, we carefully inspected the work done, and we can state with regard to the oat field, taking into account that the variety was potatoes, that there was less shake and loss otherwise than ever we remember to have observed in the most careful handcutting. Where the barley was lying from the machine the stubble was clipt less close. In the wheat, though the cutting was very perfect, there was a loss, but perhaps less than in the average cutting of wheat in East Lothian with Irish reapers as the work is usually performed. A deputation from the Royal Agricultural Society having attended this meeting, were so satisfied with the performance of Mr. Bell's machine (Hussey's only being entered for their coming exhibition at Galway) that they offered to Mr. Bell to pay the whole expenses connected with a trial of his machine in the neighbourhood of their exhibition; they being satisfied that justice would not be done to the agriculturists in Ireland if they had not an opportunity of seeing the work of Mr. Bell's machine, compared with that of Mr. Hussey. As Mr. Bell's crop will be ready for cutting before the meeting of the Irish show, we trust that the machine will, in justice to his brother the inventor, the Rev. Patrick Bell, Carmyllie, as well as to our sister island, be sent. Here is an invention made twenty-six years ago, during a portion of which period, the exhibitor, Mr. Bell Inchmichael, has cut nearly the whole of his crop every season with it. Shortly after the invention, at least four of the machines were sent from Dundee to America. At the great national exhibition, American reapers were exhibited, of which Mr. Hussey's was one which afterwards beat Mr. McCormick's particularly this season at Lewes, at the English Agricultural Society's meeting. It is perhaps, however right to state that Messrs. Garrett had improved Hussey's reaper, by making the knives on the same principle as the original invention, Mr. Bell's being only bevilled on the one side. Here is an important fact which the farmers of Scotland have overlooked, that a farmer occupying land in the Carse of Gowrie, has been cutting his crops successfully with this machine which after going to America, and being adapted to the lighter crops there, comes to England with a flourish of trumpets, as something new and wonderful to help the farmers to meet the com-

petition introduced by free trade—then comes to Scotland this Season, and by a large number of judges, consisting of practical farmers and mechanics, confirmed by the opinion of a deputation of Irish agriculturists, is declared to be inferior, in every respect, to the original reaping machine of Mr. Bell.

THE HIGHLAND AND AGRICULTURAL SOCIETY'S SHOW.

On Thursday, August 5, at the close of the Society's Exhibition, about 700 gentlemen sat down to dinner in the City Hall, Perth, the use of which was gratuitously placed at the disposal of the Committee of the Association by the Town Council. The Duke of Roxburgh, the President of the Society, occupied the chair—supported on the right and left by the Marquis of Breadalbane, the Provost of Perth, Lord Kinnaird, Sheriff Craufurd, Sir J. Ogilvy, Sir D. Dundas, Dr. Grant of St. Mary's Edinburgh, Chaplain to the Society, Sir John Richardson of Pitfour, Dean of Guild Ross, and Bailie Hewat. At the other end of the table, around the Duke of Atholl, who discharged the duties of croupier, were the Earl of Mansfield, Lord Panmure, Mr. Stirling of Keir, M. P.; Lord Strathallan; Sir Archibald Campbell, M. P.; Lord Stormont; Hon. T. Bruce, Lord Blantyre; Sir Michael Shaw Stewart; Sir Patrick Murray Thriepland; Bailie Imrie; Bailie Honey, Treasurer Kemp, &c. In the body of the meeting were Mr. Campbell of Craigie; Mr. Stirling of Kippendavie; Mr. Grant of Kilgraston; Mr. G. Patton, advocate, Edinburgh; Mr. Campbell of Monzie; Mr. D. Hunter, Blackness; Mr. W. B. Callander, Prestonhall; Mr. Richardson of Carhamhall; Mr. Turnbull, of Bellwood, &c. &c.

After the discussion of a substantial dinner the cloth was removed, and the intellectual department was spiritedly filled up. The chairman after a few happy introductory remarks, said—The Highland Society has now existed for a period of seventy years; and, if I may be allowed the expression, has been looked up to and respected by every other agricultural society throughout the kingdom. (Cheers.) It rarely indeed happens that the efforts of patriotic men to benefit their country have been attended with such signal success as that which has marked those of the founders of this Institution. I firmly believe that this was owing, not so much to the eminence and distinction which many of them held, but to the soundness of the principles on which the Institution itself was based, and to the admirable good sense and prudence which has characterised, and which still in its present Board of Directors continues to characterise those who watch over the administration of its affairs. I trust, gentlemen, that it may long continue to maintain this high character, for it does appear to me that in the present state of the agricultural world every exertion will be required to promote improvement. But let me remind you that these exertions depend in some measure on yourselves. At the same time I hope and trust that the landlords will at all times be ready and willing to aid you in these efforts. (Cheers.) I say, gentlemen, it will require our united exertions to maintain for the tenantry of Scotland that superiority to which their skill, their industry, and I may add, their indomitable perseverance and integrity so justly entitle them. Great as are the advantages in a practical point of view which have resulted from the establishment of the Highland Society, I venture to say a new and more extensive field now lies before us. At present we are eminently called upon to proceed in the path we have been hitherto pursuing, when each day some fresh discovery opens to our view, the further we proceed and the greater success we attain in a work so honourable and so elevated. For if ever there was a case in which that truth comes before us in its full force—I mean knowledge is power—it is pre-eminently so in the aid which science confers on practical agriculture. (Loud cheers.) Each day we see the adaptation of some new principle in implements of husbandry or in the employment of some new substance to fertilize our soil. I trust, then, that the Highland Society will not lose sight of these ends, and that in connection with the landlords of Scotland it will do its utmost to foster and promote that spirit of improvement now abroad, from which, in my humble opinion, so much is at present to be expected. Gentlemen, by pursuing this course, you will secure both a physical and a moral object. We shall thus be scattering plenty and diffusing contentment throughout the land; and, what is more, by our constant intercourse with our tenantry, and our constant practice of giving them all encouragement when they stand in need of our assistance, we shall be extending the influence of kindness and kindly feelings around, we shall, so to speak, be ploughing up the subsoil of feelings and affection, and exposing what might perhaps have remained inert and barren but for the refreshing rays of social intercourse and converse. In a word, we shall be sowing on earth the seeds "of goodwill towards men." It is in this opinion, and looking back with satisfaction on the past exertions of this Society, and with brighter anticipations yet for the future, that I call on you to drink, as though the words of the toast came home to you in their fullest acceptation—"Prosperity to the Highland Society, and success to the agricultural interest." (The toast was drank amid the greatest enthusiasm.)

NOTICES OF FARMS.

Details of individual practice and management on different soils and in distinct localities, would present new ideas to many farmers and add to our existing knowledge of Canadian husbandry. I propose in this paper to give a sketch of the farm of R. N. Watts, Esq. Drummondville, in the Eastern Townships of Lower Canada.

The cleared portion, consisting of 200 acres, may be called in part a sandy loam and in part a sandy soil, chiefly covered in its primary state with pine and tamarack. From seven to ten dollars per acre are paid for clearing, that is, for underbrushing, chopping, logging, piling and burning. It may be proper to advert to the custom in the immediate vicinity of manufacturing salts from wood-ashes. Of these elm and ash make the best, fifteen or sixteen bushels of which yield a quintal of salts, for which twenty to twenty-four bushels of other kinds are required. Four quintals may be made from an acre. With ordinary apparatus a quintal worth three dollars may be made per day.

The rotation adopted is the following. First year oats, of which a second crop is occasionally taken. Second year potatoes or turnips with manure. Third year spring wheat seeded down with clover and timothy. Mow for three years and pasture before breaking up again. The clover grows in exuberance for two years, afterwards dies out, and leaves the timothy in its purity and perfection.

The buildings consist of three wings North, West, and South, with apartments for stables, harness' implements, waggon houses, cow-houses, poultry house, grain rooms, root cellar, sheep house, piggery, steaming apparatus, slaughtering &c. Stanchions are used for cows. Double stalls with cattle ties are preferable. The root cellar communicates with the byre between the cows heads. It consists of an apartment attached to the main building with the roof only above ground, upon which the snow can be easily retained. Another plan adopted here and generally followed in this severe climate, puts the root cellar below the threshing floor and adjoining mows, making the floor above dead with saw dust or tan-bark. Other requisites are dryness and ventilation.

Some of the best Short-horn Stock in Canada East is to be seen on this farm, mainly from the herd of Mr. Vail of Troy. The bull North Star out of Esterville by Meteor is a fine animal but sterile from some unknown cause. The cows Empress and Eunice are good milkers giving on grass twenty quarts per diem. The Durham short horn here as elsewhere resembles all other kinds in having inferior milkers; some of the best and some of the worst being of that breed. Interesting information in corroboration or subversion of the discovery of Mr. Guenon might be derived from an attentive observation of those features considered as indications of milking properties. How far breeders may find these remarks available as a guide remains an open question.

Full-blood Leicester sheep have been introduced. The County of Drummond Agricultural Society procured last year five rams, and five ewes from the flock of Mr. George Miller of Markham, C. W. who is well known as the most successful breeder of Leicesters in the Province. This farm is valued by the proprietor at twenty dollars per acre, sheep at eight dollars per head, but the market price would be about three. They shear about four pounds of washed wool. Six sheep are allowed in the field for a cow, and two acres for a cow's pasture. The proprietor in a letter in answer to a circular of the Lower Canada Agricultural Society, in the report published by order of the Legislative Assembly, represents sheep husbandry in his part of the country in a very unfavourable light. He says, "in Lower Canada, sheep, one year with another, are fed in winter quarters during six months of the year; allow one quarter of a ton of hay to each sheep for its winter food, which, on account of its being fed on the farm shall be valued at 20s. per ton, say:—

EXPENDITURE.

	£	s.	d.
One Fourth of a ton - - -	0	5	0
6 Bushels of Oats during winter -	0	7	6
Total - - - - - -	0	12	6

RECEIPTS

	£	s.	d.
4 lbs. of wools, a liberal average 1s. 6d.	0	6	0
Value of the lamb - - -	0	7	6
Total - - - - - -	0	13	6

This shows a balance of one shilling on each sheep, to indemnify for losses of lambs and sheep, expense for summer grazing, keeping up fencing, attendance during the winter and lambing time, washing, shearing, interest on building, both for storing them and their fodder, I shall carry it out in figures for 100 sheep:—

	£	s.	d.
Attendance during the winter and lambing season - - - - - - -	3	0	0
Washing - - - - - - - -	0	5	0
Shearing - - - - - - - - -	1	5	0
Pasture for Summer, 30 acres, at 5s. -	7	10	0
Fencing - - - - - - -	1	0	0
Expenses of buildings, &c. - - -	2	0	0
	15	0	0
Deduct the 1s. mentioned above on each sheep, 100 - - - - - -	5	0	0
Balance, loss.	£10	0	0

I have made no allowance for manure, having taken that into consideration in valuing hay at four dollars per ton. This makes no allowance whatever for accidents of any kind, and supposes that each sheep rears its lamb."

Let us compare this with an estimate taken from Randall's sheep husbandry in the South, a work from which much information on that subject may be derived. The estimates are for the State of New York.

EXPENDITURE.

	$ cts.
100 sheep to interest on purchase money	14 00
To interest on 33½ acres of land at $20 per acre.	46 66
" curing and storing hay.	13 75
" expense of shearing	4 00
" salt, tar, and summer care.	4 00
" labour of foddering, &c. during winter, say	5 00
" loss by death, 2 per cent above the value of pulled wool.	4 00
Total.	$91 41

RECEIPTS.

By 300 lbs. of Wool at 39 4-7 cts per lb.	118 71
80 lambs at $1 per head.	80 00
40 two-horse loads of winter manure at 50 cents per load.	20 00
Summer manure, calling it only equal to shearing and summer care.	8 00
Total	$226 71
Balance	135 30

Making the net profit of $4 05, or 20¼ per cent per acre on lands worth $20.

The Scotch plough is preferred, and does its work equally well on cleared or stumpy land. A very useful and ingenious implement is used as a double-mould-board plough, potatoe lifter and scuffler, doing its work well in each operation. A curious and efficient turnip sower may also be seen. The cylinder in which the seed is deposited does not revolve but has a horizontal motion given to it by means of a projecting arm and roller which strike the spokes of the wheel as it moves round, thereby causing the seed to drop from a hole in the lower side of the cylinder. Straw, hay, and turnip cutters are also in use. A hay cart, which from its almost universal use here may be called French Canadian, seems admirably adapted for that particular object. Ten cwt of hay can easily be carried with one of these on an ordinary road.

Although this farm may be said to possess an inferior soil it produces under judicious management large returns of potatoes, carrots, turnips, hay, and oats, of which last, a sample of a variety called the *Poland*, sent to the London exhibition, weighed 52 lbs. per bushel.

A. K.

THE POTATO DISEASE.

The Legislature of Massachusetts, in the year 1851, offered a prize of $10,000 to any one who should satisfy the Governor and Council that, by a test of at least five successive years, he had discovered a sure remedy for the potato rot. Several communications have been received on the subject, which are published by the authority of the legislature, of which we publish the following summary by Hon. Amasa Walker, Secretary of State:

Although these communications may not furnish any perfect cure for the potato disease, yet they agree in so many important points, and offer so many valuable hints, relating to the nature, cultivation, preservation, and improvement of the potato, that they cannot fail to be of great public utility. The similarity of views expressed by the most intelligent and experienced writers, relating to the nature, cultivation, disease, and cure of the potato, is truly remarkable, and we think auspicious. Among the principal points, relating to which there is a general concurrence, are the following:

Soundness and Vitality of the Seed.—Renewing the seed from the ball of healthy vigorous plants every few years, even restoring to the native place in South America, and taking the seed from the wild potato, is considered important. When potatoes are to be raised from the tuber, sound, healthy, whole potatoes are recommended for planting. Cutting potatoes is decidedly condemned. Anything which impairs the vitality of the seed increases the liability to disease.

Quality or kind of Soil.—A dry, light, loose, warm soil, is considered necessary to the soundness and health of the vegetable, as well as to its richness and flavour, the latter depending quite as much on the quality of soil as on the variety of seed. A wet, heavy, compact soil, directly promotes the disorder. Far upon the side of a mountain or hill is a favourable location for the growth of the potato; and new land contains more of the qualities requisite for its nourishment and health, than old or worn out soils.

Influence of Atmosphere.—Potatoes should be as little exposed to the air as conveniently may be. Their natural place is under ground. By too much exposure they become poisoned and turn green. Some recommended depositing them for the winter in holes under ground in a dry soil; or if kept in a cellar to preserve them dry, in small quantities, in sand; and to keep them cool. Keeping large quantities in a body in the cellar is by some supposed to promote heat and putrefaction. Planting in the fall is recommended by some, as potatoes left in the field over winter, are observed to come forward earlier in the spring, to grow more vigorously, to get ripe earlier and before the blighting rains in August, and to be more sound and healthy.

Manures.—All anti-putrescents, such as lime, wood ashes, pulverized charcoal, plaster, salt, nitrogen, &c. are believed to contribute directly to the health of the potato, as well as to add to its richness and flavor; and, of course, to prevent putrefaction and disease. Of other manures, well-rotted compost is preferred. Stable manure is too strong and heating, and produces ill-flavoured, unhealthy potatoes, and is decidedly condemned.

Disease, Contagion, Old Age, and Death.—These are common to vegetables as well as to animals. All are liable to disease, some more, some less, according to circumstances, predisposing causes, and preventive means. Some vegetable diseases are believed to be contagious. The present disease is thought by many to be of that class. One field of potatoes is liable to take the disorder from another field. Potatoes are predisposed to disease, by bad cultivation, old age, bad soil, bad manures, sudden changes of weather, warm rains, &c.

Ravages of Insects, Fungi, &c.—The best writers consider the ravages of insects as at most but a predisposing cause, rendering the potato plant more liable to disease by enfeebling the plant. By many writers insects are considered as remotely affecting the potato; by others as having no effect at all. The fungus on potatoes is not the cause of the rot. It finds the potato previously diseased, a fit subject for its operation.

The general conclusions to which the facts presented in these various communications seem to lead us, are:

1. That the disease has a striking resemblance to the cholera, and probably exists in the atmosphere.

2. That it is doubtful whether any specific cure has been, or ever will be discovered; but

3. As in cholera, certain preventives are well ascertained, by the application of which, the liabilities to disease may be greatly lessened.

4. That by obtaining the soundest seed, by planting in the most favourable soils, and by using the most suitable manures, we may have a good degree of confidence in the successful cultivation of this useful vegetable.

THE DEMANDS OF THE REAPING MACHINE.

The first demand of the reaping machine in harvest is level land, free from deep furrows, high ridges, and other unevennesses presenting obstacles to its successful working—such as inequality of draught to the horses; different lengths of crop, and hence its being laid in different directions by bad weather; and unequal resistance to the cutting apparatus, leaving a haggled stubble of unequal lengths.

If the horse draws at varying angles, the machine can never work well, even waiving the question of draught. On the other hand the least waste of moving power, or the application of the horse power in the most profitable manner, is certainly not the least interesting view of the question, since the severity of horse-labour is generally complained of. It is true that the construction of the machine is here involved; but whatever may be its construction, whether moved before the horses or behind them, borne on two wheels, as the American, or three as in the case of Mr. Mann's, going over furrows and ridges not only increases the amount of horse-labour, but otherwise tends to injure its working.

The second obstacle arises from a difference in the quality of the straw and its consequences. Generally, the crop is shorter in the furrow immediately on either side than at the middle of the ridge. In the furrow this generally arises from a less depth of soil; at the centre of the ridge as often from improper manuring as an extra depth of soil; for in laying out the ridge, an open furrow is left into which twice the quantity of manure is turned. There is also generally a finer mould at the middle than half-way from it to the furrow; hence, a finer and closer braid. Now, the effect of all this at harvest is obvious; for at this period we see in all the furrows, it may be, standing corn, while along the centre of the ridge it is completely laid; or if the whole ridge is laid, then how often do we find the corn parting from the middle of the ridge to the furrows, like the hair on one's head, from the crown to either side; a state of things principally resulting from improper culture, and presenting obstacles to the reaping machine almost insurmountable.

It is very obvious, therefore, that to prepare the ground for the working of the reaping machine in the most successful manner, furrow draining or under draining must be carried out to a greater degree of perfection than has yet been attained generally speaking; for without this a perfectly level surface, or surface in one plain, is impracticable, and unless we have such a surface, uniformity of tilth, of fertility, of quality of the crop, and of exposure to the influence of the weather, cannot be obtained. If we could suppose these conditions obtained, then the whole of the crop if laid at all, would be laid in one direction; and being laid thus, it would not be that complete obstacle to the reaping machine which is now found in every instance of laid corn.

The ingenuity of our implement makers has gone far already to remove the third obstacle from before the reaping machine; but in crossing furrows obliquely it cannot be wholly overcome. The sounder view of the question obviously is to do away with open furrows, instead of making machinery to cut the corn imperfectly out of them.

The reaping machine also demands large open fields, with low fences of equal height; for when fields are small they occasion a greater waste of horse-labour in turning, besides less or more damage to the crop, while the crop is more liable to be irregularly laid and twisted about in bad weather than in large open fields; and this latter result will be increased by trees standing in fields or hedge-rows, by over-grown hedges, low at one place and high at another, with gaps at every short interval, for such give rise to eddies with all their consequences. In many wooded districts it would no doubt be difficult to comply with this request, owing to their subdivision. But, at all events, if we cannot make things better than they naturally would be, we certainly ought not to make them worse, which we do by making high ridges, deep furrows, improper fences, and by unequal manuring, &c., as has already been shown.

The next demand of the reaping machine brings us to the harvest field, where special hands will always be required to work it, as is the case with sowing, threshing, and chaff-cutting machines; and where the different manipulations are equally difficult to learn, and hence will require similar attention. For instance, he who can manage the rake of Hussey's machine may never become a good driver, the latter requiring a control over horses which very few of our ordinary ploughmen exhibit, besides a knowledge of the state of the crop, and of the action of themachine under different circumstances. The idea of driving the horses at an equal pace, or even of taking an equal breadth of the crop, without regard to the state of the crop, and the ability of the man at the rake, is just as absurd as it would be for a mower to talk of going over the ground in the same manner with his scythe; and to take due notice of all these particulars is not so easy a task as many, we fear, have imagined during the bygone harvest, although it is one which must be performed before success can be aproximated.

Such is the position of the reaping machine in seed-time and harvest, and it will readily be perceived that the latter must not be lost sight of during the former, and hence our present outlook in preparing the ground for seed.—*Agricultural Gazette.*

Agricultural Census of Canada for 1851.

We are indebted to the Correspondent of the Montreal *Herald* for an abstract of the Agricultural census of Upper Canada for 1851, which we present in the following comparative form, that the Agricultural operations of both Provinces may be more easily considered. The returns have not yet been classified and brought down to the House; but the following statistics may be relied on:—

Comparative Statement of Crops; Occupiers of Land, and Cultivation in Upper and Lower Canada.

	Upper Canada. Quantity. Acres.		Lower Canada. Quantity. Acres.
Lands occupied	9,823,233	....	8,113,915
" Cultivated	3,697,724	....	3,603,317
" Cropped	2,274,586	....	2,072,953
Pasture	1,364,649	....	1,502,355
Gardens	55,489	....	30,209
Wild Lands	6,125,509	....	4,508,398
Acres in Wheat	782,115	....	427,111

OCCUPIERS IN UPPER CANADA.

Total occupiers in U. C.	99,860
Over 200 acres each	3,080
100 to 200 "	18,421
50 to 100 "	48,027
20 to 50 "	18,467
10 to 20 "	1,889
10 and under "	9,976

CROPS IN UPPER CANADA AND LOWER CANADA.

	Acres.		Bushels.	Average.
Wheat U. C.	782,115	..	12,692,852	.. 14.90
" L. C.	427,111	..	3,075,868	.. 7.20
Barley U. C.	29,916	..	625,875	.. 20.98
" L. C.	42,927	..	668,626	.. 15.00
Rye U. C.	38,968	..	479,651	.. 12.34
" L. C.	46,007	..	341,443	.. 7.87
Peas U. C.	192.109	..	2,873,394	.. 14.90
" L. C.	165.192	..	1,182,190	.. 7.16
Oats U. C.	421,684	..	11,193.844	.. 26.54
" L. C.	590,122	..	8,967.594	.. 15.00
Buckwheat. U. C.	44,265	..	639,384	.. 14.51
" L. C.	51,781	..	530,417	.. 10.24
Indian Corn U. C.	70 571	..	1,696,513	.. 24 05
" L. C.	22,669	..	400,287	.. 17.60
Potatoes U. C.	77,672	..	4,981,475	.. 64.00
" L. C.	73,224	..	4,456,111	.. 60.08
Turnips U. C.	17,135	..	3,644 942	..212.00
" L. C.	3,897	..	369,909	.. 95.00

The following is returned as the gross produce in all other crops:—

		Upper Canada.		*Lower Canada.*
Grass Seeds	Bush.	42,460	....	18,921
Carrots	"	174,895	....	82,338
Mangel Wurtzel	"	54,226	....	103,999
Beans	"	18,109	....	26,302
Hay	Tons	681,782	....	965,653
Butter	Lbs.	15,976,315	....	9 637,152
Hops	"	113,064	....	111,158
Cheese	"	2,226,776	....	511 054
Flax and Hemp	"	50,651	....	1,867,016
Tobacco	"	764,476	....	488,652
Wool	"	2,699,964	....	1,430,976
Maple Sugar	"	3,581,505	....	6,190,694

MANUFACTURES.

Fulled Cloth	Y'ds	527,466	....	780,891
Linen	"	14,955	....	889,528
Flannel	"	1,169,301	....	860,850

CATTLE AND NEAT STOCK.

Bulls, &c	Head	193,982	....	111,819
Milch Cows	"	296 924	....	294,514
Calves and Heifers	"	254,988	....	180,317
Horses	"	203,300	....	236,827
Sheep	"	968,022	....	629,827
Pigs	"	569,237	....	256,219

It must be remembered that throughout the greater part of Lower Canada, the acres are arpents, and the bushels minots. An *arpent* is about one-seventh less than an acre; and a *minot* about one-eighth more than a bushel. The County which possesses the largest number of occupied acres is York, with 390,525; the same County has likewise the largest number of acres in wheat, viz. 50.147, producing 991,608 bushels. The smallest number of acres in wheat is in the County of Bruce, where only 489 acres are cultivated for this crop; but as these acres produce 9,496 bushels, or an average of 20 30-100 bushels per acre, Bruce has the honour of being by a trifle the most fertile wheat county in the Province. York comes next, with an average of 19 71-100 bushels per acre; and Brant, Durham, Halton, Huron, Oxford, Stormont and Wentworth, all show a product within a fraction more or less of nineteen bushels to the acre. The County which exhibits the smallest average per acre is Lennox, with 5,646 acres producing 30,281 bushels—little more than 6 bushels to the acre. The average for the whole of Upper Canada is 14 90-100 bushels per acre.

The County in L. C. which possesses the largest quantity of cultivated land is Dorchester, with 479,712 acres; and that with the greatest quantity in wheat is Huntingdon, with 40,229 acres, and 231,171 bushels. The smallest number of cultivated acres are in Gaspe, viz:—92,210; producing also the smallest quantity of wheat, or 641 acres, and 3,418 bushels. Stanstead grows most wheat to the acre of any County of Lower Canada, having 4,851 acres in wheat, and 62,882 bushels—12.96-100 bushels per acre. The County producing the smallest quantity per acre is L'Islet, from which the return is 15,531 acres—67,912 bushels, or 4 38-100 bushels per acre. After Stanstead, Missisquoi and Sherbrooke, are the most fertile counties in wheat; both producing more than 12 50-100 bushels per acre.

It will thus be seen that the difference between Upper and Lower Canada, as regards the growth of wheat, in the two best wheat counties, is as 20 to 13: and in the counties having the lowest average, as 6 to 4.

THE NAMING OF CATTLE.

To the Editor of the Canadian Agriculturist:—

Dear Sir,—As a difference of opinion exists as to what is the true meaning of "A Heifer," I am instructed to request that you will notice the subject in your next number of the *Canadian Agriculturist.*

At the Show held on the 12th inst., at Thorold, one of our Vice-Presidents entered, under the head "Two year old Heifers," an animal on that Class with a calf at her heels, and the Judges would have given her the First Prize, with the reservation whether the rules of the Society

would admit her (having had a calf,) under that head. The Officers and Directors in my opinion very properly rejected her, considering her a cow; but, Sir, on my return home I consulted the dictionary, and what do I find there?—"Heifer: [heah-pope, heah-fore—Saxon,] *a young cow.*"—Pope. "Cow: [in the plural, anciently *kine* or *keen*, now commonly *Cows*:—Cu, Saxon,] the female of the bull."—Bacon.

Yours very truly,
JOHN RADCLIFF,
Pres. Agri. Society, United Counties, Lincoln and Welland.

REMARKS.

The term "Heifer" is too indefinite to meet some cases that may arise at Cattle Shows, and the exact age of the animal should, in all cases, be given. In England, Heifers usually bear a calf at about 2½ years old, when they cease to be called by that name, and are denominated cows: but there are exceptions to this, in different parts of the country. *Stephens, in his Book of the Farm,* says in reference to the naming of live stock at different ages:—"The term 'Calf' is applied to all young cattle, until they attain a year old, when they are called *year olds* or *yearlings,* saying *year old bull, year old quey* or *heifer.* In another year they are named *two years old bull, two years old quey or heifer.* In England females are called *stirks* from calves to *two years old,* and the males *steers.* The next year they are called *three years old bulls;* females, in England, from two to three years old, *heifers;* in Scotland *three years old queys;* and when they are kept for breeding, and bear a calf at that age, they get the name of *cows,* the same as in England, and the males *three years old stuts* or *steers.* Next year the *bulls* are *aged,* the *cows* retain that name ever after, and the *stuts* or *steers* are *oxen,* which they continue to be to any age they are kept."

In the case mentioned by our correspondent, the animal in question, having a calf by her side, would be considered a *cow,* in the common parlance of the country.

IMPROVEMENT IN SHINGLE MAHINES.

Simon Ingersoll, of New York city, has taken measures to secure a patent for an improvement in shingle machines. The shingles are cut from the blocks and they receive the requisite bevel at one operation. There is a frame which has a rectilinear motion, and has a knife on its upper board which cuts or splits a strip *from the under surface of the block; the said* strip, after being cut from the block, is thrown by means of a clasp acted upon by a spring, on the lower board of the frame; it then passes under a stationary cutter which gives the aforesaid strip the required bevel, forming it into a shingle.—*Scientific American.*

POPULATION OF UPPER AND LOWER CANADA ACCORDING TO RETURNS.

UPPER CANADA.

Counties, Towns and Villages.	Population.	Total.
Addington—County	14465	
Bath—Village, about	700	
		15165
Brant—County	19659	
Brantford—Town	3877	
Paris—Village	1890	
		25426
Bruce—County		2837
Carleton—"	23202	
Bytown—Town	7760	
Richmond—Village	434	
		31397
Dundas—County		13311
Durham—County	28256	
Port Hope	2476	
		30732
Elgin—County	24144	
St. Thomas	1274	
		25418
Essex—County		
Sandwich—Town	14973	
Amhertsburgh—Town	1880	
		16817
Frontenac—County	19150	
Kingston—City	11585	
		30735
Grey—County		13217
Glengary—County,		17596
Grenville—"	18551	
Prescott—Town	2156	
		20707
Haldimand—County		18788
Halton—County		18322
Hastings	27408	
Belleville—Town	4569	
		31977
Huron—County	17869	
Goderich—Town	1329	
		19198
Kent—County	15399	
Chatham—Town	2070	
		17469
Lambton—County		10815
Lanark—County	25491	
Perth—Town	1916	
		27317
Leeds—County	27034	
Brockville—Town	3246	
		30208
Lennox—County		7955
Lincoln—County	16160	
Niagara—Town	3340	
St. Catharines	4368	
		23868
Middlesex—County	32864	
London—Town	7035	
		39899
Northumberland—County	27358	
Cobourg—Town	3871	
		31229
Norfolk—County	19829	
Simcoe—Town	1452	
		21281

Ontario—County	29434	
Oshawa—Village	1141	
		30576
Oxford—County	29336	
Woodstock—Town	2112	
Ingersol—Village	1190	
		32638
Peel—County		24816
Perth—County		15545
Peterboro—County	17046	
Peterboro—Town	2191	
		152[illegible]8
Prescott—County		10487
Prince Edward—County	17318	
Picton—Town	1569	
		18887
Renfrew—County		9415
Russell—County		2870
Simcoe—County	26158	
Barrie—Town	1007	
		27165
Stormont—County	12997	
Cornwall—Town	1646	
		14643
Victoria—County		11657
Waterloo—County	23109	
Preston—Village	1180	
Galt—Village	2248	
		26537
Wellington—County	24936	
Guelph—Town	1860	
		26796
Welland—County	17857	
Chippawa—Village	1193	
Thorold—Village	1091	
		2 014
Wentworth—County	24990	
Hamilton—City	14112	
Dundas—Town	3517	
		42619
York—County	48944	
Toronto—City	30775	
		79719
		952004

LOWER CANADA.

Counties, Towns and Villages.	Population	Total.
Beauharnois—County,	38660	
Huntingdon—Village,	679	
Beauharnois— "	874	
		40213
Bellechasse—County,	17732	
Berthier en bas—Village, about	250	
		17982
Berthier—County,	33008	
Berthier en haut—Village, about,	1600	
		34608
Bonaventure—County,		10844
Carleton—Village,		
New Carlisle— "		
New Richmond—Village		
Chambly—County,	14981	
Chambly,	884	
Longueuil,	1496	
St. Johns,	3215	
		20576
Champlain—County,	13146	
Batiscan—Village, about	750	
		13896
Dorchester—County		43105
Drummond,		16562
Drummondville—Village		
Durham,		
Kingsey,		
Gaspe—County,		10904
Huntingdon—County,	38888	
Laprairie—Village,	1757	
		40645
Kamouraska—County,		20396
Leinster— "	28606	
L'Assomption,	1084	
		29690
L'Islet—County,	18420	
Montmagny—Village,	1221	
		19641
Lotbiniere—County,		16567
Megantic— "		13835
Mississquoi— "	13015	
Phillipsburg—Village,	469	
		13484
Montmorenci—County		9598
Montreal—County,	17596	
Montreal—City	57715	
Lachine—Village,	1075	
Cote St. Louis—Village	995	
		77381
Nicolet—County,		19657
Nicolet—Village,		
Ottawa—County,	21734	
Aylmer—Village	1169	
Hull— "		22903
Portneuf—County,		19366
Quebec— "	19474	
Quebec—City,	42052	
		61526
Richelieu—County,	21720	
St. Ours—Village,	542	
Sorel,	3424	
		25686
Rouville—County,		27031
Rimouski— "	25887	
Fraserville—Village,	995	
		26882
Saguenay—County,		20783
St. Maurice— "	22626	
Three Rivers—Town,	4936	
		27562
St. Hyacinthe—County,	27310	
St. Hyacinthe—Town,	3313	
		30623
Sherbrooke—County,	17016	
Sherbrooke—Town,	2998	
		20014
Shefford—County,		16482
Stanstead— "		13898
Terrebonne— "	25662	
St. Therese—Village	1129	
		26791
Two Mountains—County,	29686	
St. Eustache—Village,	784	
		3470
Vaudreuil—County,	20986	
Vaudreuil—Village,	443	
		21429
Vercheres—County,		14393
Yamaska—County,		14748
		890261

Origins.		Lower Canada.	Upper Canada.	Total.
Natives of	England and Wales,	11230	82699	93929
	Scotland,	14565	75811	90376
	Ireland,	51499	176267	227766
	Canada, French origin	569528	26417	595945
	" not of French origin	125580	526093	651673
	United States,	12482	43732	56214
	Nova Scotia and P. E.,	474	3785	4259
	New Brunswick	480	2634	3114
	Newfoundland	51	79	130
	West Indies	47	345	392
	East Indies	4	106	110
	Germany and Holland,	159	9957	10116
	France and Belgium	359	1007	1366
	Italy and Greece	28	15	43
	Spain and Portugal	18	57	75
	Sweden and Norway	12	29	41
	Russia, Poland & Prussia,	8	188	196
	Switzerland	38	209	247
	Austria and Hungary	2	11	13
	Guernsey	118	24	142
	Jersey and other British Islands	293	131	424
	Other places	830	1351	2181
Born at Sea		10	168	178
Birth place not known		2446	889	3335
Total Population		890261	952004	1842265

Religions.	Lower Canada.	Upper Canada	Total.
Church of England	45402	223190	268592
" Scotland	4047	57542	61589
" Rome	747866	167695	914561
Free Presbyterian Church	267	65807	66074
Other Presbyterians	29221	80799	110020
Wesleyan Methodists	5799	96640	102439
Episcopal "	7	43884	43891
New Connexion "	3442	7547	10989
Other "	11935	59585	71520
Baptists	4493	45353	49846
Lutherans	18	12089	12107
Congregationalists	3927	7747	11674
Quakers	163	746	7423
Bible Christians	16	5726	5742
Christian Church	10	4093	4103
Second Adventists	1369	663	2032
Protestants	10475	1733	12208
Disciples	.....	2064	2064
Jews	348	103	351
Menonists and Tunkers	.....	8230	8230
Universalists	5450	2684	6134
Unitarians	349	834	1183
Mormons	12	247	
Creed not known	390	6744	842265
No Creed given	4521	35740	40261
All other Creeds not classed	13834	7805	21639
Total population	890261	951004	404163

MISCELLANY.

THE BRANCH OF WILD HOPS THAT GREW OVER THE STREAM.

I love the bright tints of the rich summer rose
As it spreads unfold to the sun,
What flower yet a fragrance so sweet can disclose,
As that of this loveliest one!
The lily and cowslip were friends of my youth,
And daisies—a glittering store—
They taught lessons of purity, sweetness, and truth,
And I feel that I love them the more:
But the fairest of all in my memory's dream,
Is the branch of wild hops that grew over the stream

I remember the time, it is long since gone by,
When I sought out the shadiest spot,
The beauties of summer were faded, and I
Was sad—for the blue-bells were not;
And I longed for a wreath to entwine in my hair,
But no favourite bud could I see,
Till my eye caught a branch that was streaming in air
From the stem of the sycamore tree,
And my garland was formed of its pale yellow beam—
'Twas the branch of wild hops that grew over the stream.

Since then I have wandered by streamlet and fell,
And scenes that were lovely and new,
With friends that I love and who love me as well;
But they're not so dear to my view
As my own native Kent with its turf growing wild
The home of the blue-fly and tree,
Where gaily I romped, a mirth-loving child,
In the shade of my favourite tree;
And I long to be twining its beautiful frame
With the branch of wild hops that grows over the stream.

A VOICE FROM HAMPSHIRE.

ANASTATIC PRINTING.

Considerable interest was manifested in London a few years ago by the discovery of a process of multiplying or reproducing indefinitely, fac-similes of documents or engravings however, elaborate, and likely from its cheapness entirely to supersede lithography. The discovery was made by Mr. Rudolph Appel, a native of Silesia, eight or nine years ago, and termed by him Anastatic Printing. Mr. Appel went to England to push his fortune, but not having patented his invention it soon became public property. Some slight failures in the process, perhaps from this very cause, that the parties who had appropriated the invention had not learned all the secret, caused the discovery to be looked upon as a little theoretical. At the Great Exhibition in 1851, however, a prize was awarded to the Inventor, and since then public attention has again been drawn to the process; not only on account of its merits; but also on account of its dangerous nature, if not strictly guarded against. Copies of cheques and Bank notes may be taken by this invention so correctly as to defy the closest scrutiny, and bankers have been decived again and again, when examining notes and cheques forged by this resurrection process. Messrs. Glynn and Appel have, however, manufactured and patented a paper for preventing forgery by the Anastatic Press. In order that some idea may be formed of the difficulty to be overcome, we will subjoin from the *Art Journal* a very comprehensive account of the actual operation of Anastatic printing:

"The print of which an Anastatic copy is required is first moistened with very dilute nitric acid—one part of acid to seven of water—and then being placed between bibulous paper, all superabundance of moisture is removed. You will easily understand that the acid being an aqueous solution will not have attached itself to the ink on the paper; printer's ink being of an oily nature, and if the paper thus prepared be placed on a polished sheet of zinc and subjected to pressure, two results will follow.

In the first place the printed portion will leave a set off or impression on the zinc, and secondly the nitric acid attached to the non-printed parts of the paper will eat away and corrode the zinc, converting the whole, in fact, into a very shallow stereotype. The original being removed—perfectly uninjured—the whole zinc plate should next be smeared with gum water, which of course will not stick to the printed or oily part, but will attach itself to every other portion of the plate.

A charge of Printers' ink being now applied, this in its turn only attaches itself to the set off obtained from the print.

The final process, consists in pouring over the plate a solution of phosphatic acid which acts on the non-printed portion of the zinc, and produces a surface to which printers' ink will not attach. The process is now complete and from such a prepared zinc plate any number of impressions may be struck off.

The uses to which this ingenious invention may be applied are various, for instance, copies of rare prints may be obtained without the aid of an Engraver. Reproductions of books, or works out of print, may be had without setting up the type; authors may illustrate their own works and fac similes of pen-and-ink sketches may be had at very inconsiderable expense."

It may be seen from this description that without some safe guard, forgery upon a large scale could be easily effected. The antidote is offered by the patent paper invented by Messrs. Glynn & Appel. It is as beautiful from its simplicity, as it is efficacious in its operation. It consists merely in impregnating or dying the pulp of which the paper is made with an insoluble salt of copper. After a series of experiments, the patentees preferred phosphate of copper to any other salt, and for this purpose sulphate of copper, and phosphate of soda are successively mixed with the pulp, which produce an insoluble salt, the phosphate of copper. Besides this a very small portion of a peculiar oily and non-drying soap is introduced, which affords a double protection.

The result of the copper being introduced into the paper is, that should a forger attempt to submit a note or cheque printed on this patent paper to the Anastatic process, wetting it, as previously described, with dilute nitric acid, and subjecting it to pressure on a zinc plate, a film of metallic copper is immediately deposited between the cheque and the zinc, not only preventing the set-off, or transfer of the impression, but cementing the paper so firmly to the zinc that it can only be separated by being destroyed.—Thus the forger is punished by losing his note, the public is protected, and the banker benefitted. Hitherto the safety of the banker has been in the elaborate engraving of the notes used, so that no one except a skilful engraver, could give a correct fac-simile, and such an engraver is not likely to attempt a forgery for the sake of the money to be derived from his labours, so that the work is entrusted to reckless but it may be expert hands, and this leads to the detection of the offence. It is different, however, with the Anastatic process, for any one who understands lithographic printing, may with the aid of a zinc plate, a little nitric acid, and a press, produce so perfect fac-similes of notes and cheques as to defy scrutiny.—*Family Herald.*

The web of life in order to produce good measure should be woven in the loom of virtue.

The publishers of a paper in Iowa give as an excuse for want of reading matter, that one of the editors got whipped at a horse-race, and the other was on a spree.

THE EMPIRE OF JAPAN.

When Paul stood in the midst of the Court of the Areopagus he said, "God hath made of one blood all nations of men to dwell on all the face of the earth," but how very impure must that blood, in the lapse of ages have become, that the varied impulses which are warmed by its radiant circulation are so diametrically opposed to each other, that the most transient approximation produces only jarring and strife. Not only has mankind lost all ties of family relationship and of a community of interest; but feelings the most rancorous, passions the most destructive, have supplied their place. The fact is that humanity manifests itself in so many varied aspects that we are frequently tempted to imagine that mankind cannot have sprung from one common stock, or that our great progenitor listened in lonely majesty to the minstrelsy of paradise, or was cheered and refreshed by the ambrosial fruit which clustered so profusely on the heavy laden boughs. Yet as we can in some measure account for, and reconcile with, this standard, the diversities which exist among ourselves, we are satisfied that if we had the means and appliances to enable us to enquire narrowly into the discrepancies that exist in more remote circles of life, we would find that they were all brought about by the recurrence of events set in motion by the pride or the covetousness of man. We need not wander far for an abundance of illustrations to shew the correctness of these remarks, but in obedience to the ideas which suggested them, we will turn our steps to the Empire of Japan.—Here we have humanity in its two aspects,—the natural and the unnatural—as fully developed as it can be, by the wildest and most barbarous Indian tribe that may be encountered. At the present moment the laws of that empire are so cruel, "that no Japanese ship or boat, or any native of Japan, shall presume to quit the country under pain of forfeiture and death; that any Japanese returning from a foreign country shall be put to death; that whosoever presumes to intercede for offenders shall be put to death;" and these barbarous laws have been in existence since 1637. The insular Empire of Japan is about 1200 miles in breadth containing a population estimated at 30,000,000. On the North it has the sea of Ochotsk, on the east and south the Pacific ocean, and on the west the sea of Japan.

The illustrious Venetian traveller Marco Polo thus describes it under a Chinese name:—"Zipangu" he says, "is an island in the Eastern Ocean situated at the distance of about fifteen hundred miles from the main land or coast of Manji. It is of considerable size; its inhabitants have fair complexions, are well made, and are civilized in their manners. Their religion is the worship of idols. They are independent of every foreign power, and governed only by their kings. They have gold in the greatest abundance, its sources being inexhaustible. To this circumstance we are to attribute the extraordinary richness of the sovereign's palace, according to what we are told by those who have had access to the place. The entire roof is covered with a plating of gold in the same manner as we cover houses, or more properly churches with lead. The ceilings of the halls are of the same precious metal, and many of the apartments have small tables of pure gold considerably thick; and the windows also have golden ornaments." Such is the account given by Marco Polo, but the empire consists of an unknown number of Islands, all clustered together between Corea and Kamschatka, and separated from the continent of Asia by the sea of Japan. Japan proper consists of three large islands, Kioosoo or Kewsew, Sitkokf, and Niphon. Kioosoo the most western is about 200 miles long, with an average breadth of 80 miles. Sitkokf may

be 150 miles long by about 70 miles, and Niphon, the largest and principal island is upwards of 900 miles in length and more than 100 miles of average width. The Empire is guarded by dangerous shores and by stormy seas as well as by the jealousy of its government and the severity of its laws. But it was not always so in Japan. The finer feelings of our nature had at one time free scope there as in other places, and the ear was not always deaf to the cry of distress. With the exception of the mention made of the country by Marco Polo in the end of the thirteenth century the islands of Japan were unknown to the European world till 1542, when a Portuguese ship, bound for Macao in China, was driven from her course and forced by the storm to take shelter in the harbor of one of these islands. The Portuguese were received with courtesy and kindness. The first two of them who set foot on shore on this unknown land were named Antonio Mota, and Francesco Zei moto. The Japanese have preserved portaits of them. From this accidental circumstance, a regular trade was opened up and a Portuguese ship, laden with woollen cloth, furs, manufactured silks, taffetas, and other commodities in request, was sent once a year to the same island. The Portuguese were thus the first Europeans who had any commercial dealings with the Japanese, and about eight years after the discovery, Francesco Xavier joint founder with Loyola of the order of the Jesuits, and some other Jesuit padres embarked for that new territory as missionaries. The faith prevailing at that time was said to be of Brahminical origin. Xavier quitted Japan for China in 1551, and died on the 2nd December of the following year at Shan-Shan on the Canton River, not far from Macao The labors were, however, kept up for many years, until at length the native priests were roused into vigorous opposition, and so prevailed with the Government as to procure a proclamation forbidding under pain of death the practice or profession of the Portuguese religion. As yet no Englishman had set foot on the Japanese soil, but in the years 1591 William Adams, a warm hearted genuine, unsophisticated, Englishman hiredhimself for chief pilot of a fleet of five sail of Hollanders, made ready by the chief of their Indian Company. The fleet set sail from the Texel on the 24th of June, and after serious calamities they reached the Straits of Magellan, where they wintered. Having again set sail, and suffered a variety of encounters, the ships lost sight of each other and never again met. Of the five ships that left Holland only one remained, ye they did not give up to despair, but determined to direct their course for Japan as they had learned from one Dirreck Gerritson, who had been there with the Portugals, that woollen cloth was of great estimation in that island. On the 12th of April, 1600, they came close to Bungo on the island of Kiusoo. Here for the present we will leave the good English pilot having first recorded the account which he gave of himself. "Your Worships shall understand that I am a Kentish man, born in a town called Gillingham, two English miles from Rochester, and one mile from Chatham, where the Queen's ships do lie; and that, from the age of twelve years I was brought up in Limehouse, near London, being 'prentice twelve years to one master, Nicholas Diggins and have served in the place of master and pilot in her Majesty's ships, and about eleven or twelve years served the worshipful company of the Barbary merchants until the Indian traffic from Holland began, in which Indian traffic I was desirous to make a little experience of the small knowledge which God had given me."

Four bags of apples were stolen lately from the orchard of Mr. Toshock of Ramsay. He can do without the apples but he would like the bags back. A word to the wise is enough.

POULTRY REMEDY.—About six weeks ago one of my hens became ill, and lost the use of one of its legs. I was told over laying was the cause of the malady, and was recommended to give her a few pepper-corns and a little bread soaked in ale, which was forced down her throat. In a few hours the bird was walking the yard; however, in a couple of days she had a relapse, when the same dose was administered, and she was separated from her companions for forty-eight hours, when she quite recovered, and has had no return of the complaint, and produces her fair number of eggs per week. This may be a useful hint to amateurs, as I was informed by a poultry-fancier of some experience that my hen would die.

FOR YOUNG CATTLE AND HORSES.—Mix occasionly one part of salt with four parts of wood ashes, and give the mixture to different kinds of stock, summer and winter. It promotes their appetites and tends to keep them in a healthy condition. It is said to be good against botts in horses, murrain in cattle, and rot in sheep

Obituary.

PROFESSOR NORTON.

With the deepest sorrow we announce the decease of this distinguished and promising scientific Agriculturist, who has been, according to human judgment, prematurely cut off in the midst of his usefulness.—In the demise of Norton and Downing this continent has lost two of its most able and successful cultivators of the important and attractive arts of Agriculture and Gardening, whose places will not be readily supplied.

Professor Norton had enjoyed the great advantage of studying under such able chemists as Professor Johnston, in England, with whom he continued on terms of the most friendly intimacy, and Professor Mulder, of Holland; and distinguished himfelf for patient and original research in completing a series of analyses of the Oat. for which, the Highland Society awarded a premium of Fifty Pounds His excellent little treaties on Scientific Agriculture, for which he received a liberal prize from the New York State Agricultural Society, is well know and appreciated; while his Notes to the American Edition of Stephen's great work, the Book of the Farm, or, as it is called on this side the Atlantic, "*The Farmer's Guide*," display an intimate acquaintance with practical as well as Scientific Agriculture that must render that truly able and original work, of still greater usefulness to American farmers. He was likewise a frequent contributor to the Albany *Cultivator*, and occasionally to other periodicals of a similar character. Mr. Norton filled the Chair of Scientific Agriculture in Yale College, and took a warm interest in the establishment of a University in Albany, in which Agriculture should hold its rightful position. Over exertion seems to have developed that insidious destroyer—consumption, which rapidly hurried him to the grave at the early age of 30 years, but not till he had laid a solid foundation of substantial learning, and acquired for his sterling integrity and moral worth, the profound respect of all who knew him.—Truly, the memory of the wise and virtuous is blest.

ROBERT HOPE, ESQUIRE.

Mr. Robert Hope, the Scotch agriculturist, died a short time since at an advanced age. For upwards of half a century he has been tenant of the farm of

Fenton Barns, East-Lothian, and held a prominent position in connection with Scottish agriculture. He succeeded his father in the same farm, and was early noted as a skilful and intelligent cultivator, and as one of the pioneers in those improvements in the agriculture of Scotland, which East-Lothian may be said to have begun first and carried farthest. In early life Mr. Hope was a contributor to "The Farmer's Magazine," and to the works published by Sir John Sinclair. Almost the last article of any length which he wrote was the General Observations on the County of Haddington in the New Statistical Account of Scotland, where he graphically describes the changes witnessed in his life-time. He states that he remembered when the public roads in his neighbourhood, particularly the one along the coast to North Berwick, were without metal, and ploughed up every summer to lessen the inequalities, and to remove the water, the condition of the agricultural districts being at that time as primitive as the roads; and he lived to see the best of roads intersecting a country cultivated like a garden, and a railway passing his own fields, carrying to market in tons, in a few minutes, the produce which he used to see conveyed on horseback or by sea. "Mr. Hope's reputation as an agriculturist, and as a man of general intelligence and probity," says the *Scotsman*, "being more than local, he was one of the Scotch farmers selected to give evidence before the Parliamentary committee on agricultural distress in 1836, and his evidence then given is very remarkable for fulness of information and clearness of statement, not only regarding questions purely agricultural, but on the Scottish system and other topics. In personal qualities—in gentleness, benevolence, kindness, and the strictest and most sensitive integrity—Mr. Hope stood very high and he enjoyed throughout life the respect and affection of his neighbours of all ranks and opinions. As a master, he was remarkable for his careful study not only of the interests and comforts, but of the feelings of those he employed."

EDITOR'S NOTICES.

To our Subscribers.—The delay in the publication of the present number of the *Agriculturist*, has been occasioned by unavoidable circumstances, among them may be mentioned our having to wait for the paper being manufactured.

The Ohio State Agricultural Society held its annual Exhibition at Cleveland, the latter end of September, and was eminently successful The number of visitors was very large, and the whole affair seems to have been strongly impressed with the attribute of *progress*.

The New York State Fair held at Utica, in September, although not quite so numerously attended as on former occasions, went off exceedingly well, affording indisputable evidence of the healthy progress which that Empire State continues to make in the first and most important of all arts. The agriculture of this continent is largely indebted for the impetus that has been given it, to the exertions and example of this enlightened and influential Society.

The Great Exhibition of New Brunswick was held at Fredericton in the middle of October and continued four days. It appears to have been quite a splendid affair, and we heartly congratulate our fellow colonists on the complete success of their patriotic enterprise. An interesting report has been sent us as printed in "The Head Quarters," to which we hope hereafter more specially to refer, than either time or space will at present permit.

Mr. Parsons' Letter, with one or two other communications, to be found in the present number, were unavoidably crowded out of our last, to make room for the report and premium list of the Exhibition.

Transactions of the Wisconsin State Agricultural Society, Vol. 1, 1851.

We are indebted to the courtesy of Mr. Bank, Secretary of the Society, for this interesting octavo volume, consisting of upwards of 300 pages. A document of this sort is highly creditable to the Society from which it emanates, and affords indisputable proof of the rapid progress of civilization in the great West; we will refer more particularly to this publication hereafter.

Journal of the New Brunswick Society for the Encouragement of Agriculture, Home Manufactures, and Commerce, Part 3rd: Fredericton, N. B. 1852.

Dr. Robb, the able Secretary of this Society, will please accept our thanks for the third part of this Journal, which contains several valuable papers and much pleasing information relative to the capabilities and progress of our sister Province. Some of these matters we intend referring to when we have space, in the mean time, we shall feel additionally obliged to the courteous Secretary for parts 1st and 2nd.

Scobie's Canadian Almanac and Repository of Useful Knowledge, for 1853, Toronto: Hugh Scobie.

This valuable publication continues to maintain the high character it has earned in previous years, for accuracy and general usefulness. To the man of business it is essential, and the immense mass of information which it contains entitles it to a place in every family of the Province. Nearly one hundred pages of closely printed matter, most of which must have been collected at great labour and expense, with a neatly engraved map, for the small sum of seven pence half-penny, cannot be otherwise regarded than as a miracle of cheapness, and highly creditable to the enterprising spirit of the indefatigable publisher.

"The Canadian Journal," Monthly.—Toronto: H. Scobie.

This periodical is of a much higher character, both as to matter and "getting up" than anything of the kind heretofore attempted in this Province. It is the authorized organ of a young and already vigorous

society, called the *Canadian Institute*, the main object of which is the cultivation and diffusion of general Science in its various practical applications to the requirements of this young and rising country. We have neither time nor space, at present, to speak of the work in detail, but can conscientiously recommend it to the patronage of all who feel an interest in diffusing sound and practical information among the community at large. The third number will contain a description, with several illustrations, of the late Provincial Exhibition, and the Board of Agriculture have ordered a thousand copies for gratuitious distribution.

ANGLO AMERICAN MAGAZINE, November. Toronto. Thomas Maclear.

This popular Canadian serial continues to improve. The current number contains several well written articles, one on the 'Farming Interest" we specially recommend to the notice of our readers. The illustrations consist of a portrait of Sir Walter Raleigh, accompanied by a memoir; a view of Toronto, and the Fashions for the month. The execution of the engravings is highly creditable to Canadian art, as is also the production of the work as a whole, both in a literary and mechanical point of view, and we trust a discerning public will not be backward in patronizing a publication which is essentially a home production, and well calculated to elevate the character and promote the best interests of the country.

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N. B.—No advertisements inserted excepting those having an especial reference to agriculture.—Matters, however, that possess a general interest to agriculturists, will receive an Editorial Notice upon a personal or written application.