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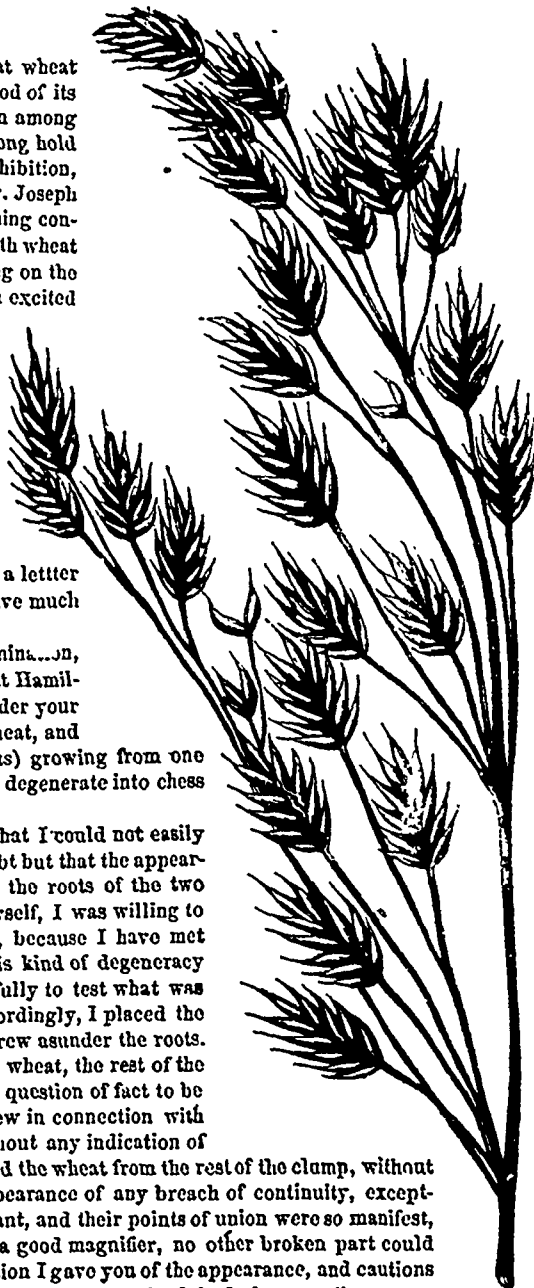
The Field.

Chess or Cheat.

An idea still prevails in many quarters, that wheat sometimes changes into chess during the period of its growth. Scientific agriculturists rank this notion among exploded fallacies; nevertheless, it retains a strong hold on the popular mind. At the recent Provincial Exhibition, in Hamilton, a bunch of plants was shown by Mr. Joseph Lee, of Glandford, which was regarded as furnishing conclusive evidence of the transmutation theory. Both wheat and chess, plainly developed, seemed to be growing on the same stalk; of course, the vegetable phenomenon excited a great deal of attention, and provoked animated discussion. The bunch of plants was certainly a curiosity, and the naked eye could not detect a distinctness between the stalks of wheat and chess. However, at the close of the Exhibition, Mr. J. Fleming of this city, who had superintended the Vegetable and Root department, placed the specimen in the hands of Professor Hincks of University College, that he might bring his botanical skill and experience to bear upon it. The results are embodied in a letter from the Professor to Mr. Fleming, which we have much pleasure in publishing:—

“DEAR SIR,—You placed in my hands for examination, a specimen sent as a curiosity to the Exhibition at Hamilton, and placed in the department which was under your superintendance, of what was supposed to be wheat, and the grass called Chess or Cheat, (*Bromus scodalinus*) growing from one root, and considered as proving that wheat may degenerate into chess in certain circumstances.

When my attention was called to it, I said that I could not easily believe in such a transformation, and had no doubt but that the appearance was produced by a close entanglement of the roots of the two plants. But, although entertaining no doubts myself, I was willing to give my best attention to the specimen exhibited, because I have met with very intelligent farmers who believed in this kind of degeneracy in wheat, and I thought it might be useful carefully to test what was brought forward as a good example of it. Accordingly, I placed the specimen in water, and, when softened, gently drew asunder the roots. There were three much starved stalks of bearded wheat, the rest of the clump consisting of a strong root of chess. The question of fact to be decided was then, whether the wheat stalks grew in connection with the chess root, or would come out separately without any indication of such connection. Now I affirm, that I disentangled the wheat from the rest of the clump, without the use of any violence and without the least appearance of any breach of continuity, excepting that the three wheat stems had formed one plant, and their points of union were so manifest, that they could be reunited, but with the use of a good magnifier, no other broken part could be observed. This case then justifies the explanation I gave you of the appearance, and cautions us not to be hasty in supposing the transformation of any organized body into another essentially distinct from it. That the difference of structure between wheat and chess is essential and important, I need not inform any one who has paid the least attention to the characters of the grass family. It is true, I believe myself, in common probably with most botanists at the present time, that wheat is not a strictly



natural production, but a permanent variety of a grass of a different though closely allied genus, known to botanists as *Aezilops*; but the change here supposed is a comparatively slight and easy one, and was also, according to the experiments upon the report of which our belief is founded, a gradual one, whilst the change of wheat into chess is a very violent one, and supposed to be made at one step.

I have no doubt, that the seed of chess is often carelessly collected with seed wheat, and the plant being a strong-growing one, will sometimes and in some soils and seasons, almost overpower the wheat in parts of a field, but there is really no evidence before us to prove any change of the one into the other. Believe me to be, dear Sir,

Very truly yours,
WILLIAM HINCKS.”

Many persons are not familiar with this plant, and in order to enable our readers to identify it without difficulty, we herewith insert an excellent engraving of a full sized ripe cluster of chess. The open, loose panicle, with its long-stalked, separate heads, has quite a graceful appearance. Before the grains begin to mature, the heads are narrower and more pointed than shown in the cut. The little awn or bristle to the chaff of each grain, varies considerably in length. Chess grows luxuriantly, but is unworthy of cultivation for any useful purpose. It will yield a large quantity of fodder, but there is very little nutriment in it, less than in straw. It should be regarded and treated as a worthless weed.

Experiments and Opinions as to Potato Culture.

For some time past Professor Anderson and other scientific agriculturists in the British isles, have been engaged in patient investigation as to the habits of the potato, more especially with reference to the best methods of warding off the rot and securing good crops of sound healthy tubers. Although the experiments made, are not yet considered complete, they have yielded some results that are worthy of being noted for practical purposes. Thus it appears to have been demonstrated, that manure is chiefly useful in promoting the growth of the potato plant, during the latter part of its existence. The tubers from six unmanured plants, in the middle of their growth weighed 43-700 grains, and when ripe they had only increased to 58-900 grains, or a little more than one third. A like number of plants manured with superphosphato and guano increased from 41-600 grains to 91-700 grains, or considerably more than twice their weight. At the same time it was ascertained, that the potatoes grown without manure contained much less water than those heavily manured. A crop of Regents yielded,

by 25 tons of barn-yard manure, though nearly double the weight of that obtained without any such application, was not materially increased in nutritive value. It has also been pretty clearly shown, that large quantities of manure are inefficacious with this crop. The produce from 35 tons of farm-yard manure, was less than the produce from 25 tons of the same manure. This was demonstrated in two instances, so that it may safely be said that where 35 tons of farm-yard manure were used, 10 of them were absolutely thrown away. Whether these results would occur with all varieties of potatoes, in all seasons, and with all descriptions of soil, are points that only further experiment can decide.

The potato disease, it is thought, is gradually disappearing in most parts of Great Britain. Early planting and early digging are spoken of as the means which have been most successful in bringing about this improvement. Various kinds of manure have been tried with a view of ascertaining if any particular kind secured immunity from disease. An experiment with seven different manures applied to "Walker's early potatoes," gave no very definite results. Rape-cake, 7½ cwt. to the acre, gave the smallest per centage of diseased tubers. A top-dressing is highly recommended in the *Farmers' Magazine*, consisting of 56lbs. sulphate of soda, 56lbs. sulphate of magnesia, and 56lbs. of salt per acre, mixed and sown broadcast as soon as the sets are planted. This application is described as particularly beneficial when the crop is grown on light soils. Dr. J. Lang, in his Prize Essay on the Potato, published in the Journal of the Royal Agricultural Society, declares it to be his opinion, derived from a considerable experience in the moist warm climate of the south of Devon, that the potato disease is of a fungoid nature, increased in virulence by atmospheric causes; that all manures are injurious except lime and salt; that the earliest potatoes in ripening should be exclusively grown; that earthing up repeatedly with fine soil is the only effectual preventive to the ravages of the disease, and that *no potato is diseased which is covered with more than three inches of soil*. The Rev. E. F. Manby, author of another able, well-written essay, also urges early planting and for planting on a limited scale, strongly recommends the use of sprouted seed potatoes. He would especially urge this plan in the case of late potatoes. This method he argues secures rapidity and luxuriance of growth. Moreover, "you ensure a plant, you have no misses, no blind eyes, but up they come, regular and equal, like a well-disciplined regiment of soldiers, every one in its place. They will be ready for getting up full a month before others planted in the ordinary way; and when the annual complaint arises that the disease has again appeared, you will have taken up your crop in a good state of preservation." In the *London Field*, of Oct. 8, a letter appears, which details an experiment tried by the writer during the past season as follows:—

"The beginning of March my potatoes were planted in rows three feet apart, and twelve inches between each plant (instead of rather more than two feet between the rows, and ten inches between each plant); and notwithstanding the late dry summer I have the most astonishing crop of every sort planted, to the great surprise and admiration of various gardeners and others who have come to see them, and who assert that their largest potatoes are not larger than the smallest of mine, as in fact there are no small refuse. The pink kidneys are now being dug up, although a week later might be better, as the haulm is still standing three feet long, green and gross, whilst all the haulm in other gardens has nearly disappeared owing to the late drouth. On being asked why this plan was adopted, the reasons were, having always remarked that the outside plant at the end of each row produced a greater crop and finer potatoes than any other, and bearing in mind the Weedon system of planting wheat in three rows three feet apart, I was induced to do so, as by that system also the additional space between the rows there is fresh earth for the next year's crop, where they should be planted, and at the same time expecting a dry summer, it occurred to me that the additional foot of earth when the potatoes were hilled up would prevent the drouth from reaching the plant, which on examination during the

dry weather was the case, and as proof the usual dressing of manure placed in rows with the potato (contrary to custom) has disappeared owing to the moisture. The land planted is not quite a quarter of an acre, light earth, subsoil chalk, and has been planted with potatoes many years; but never produced half so much as at present, or so fine and clear."

A gardener residing at Troyes, states that he has discovered an effectual cure for the potato disease. Having observed that everybody living in the quarter of the town occupied by tanners escaped the cholera, he determined to try the virtue of tan when planting potatoes. For that purpose he placed a shovelful of tan in the trench under the seed in a part of a field, and planted the remainder in the ordinary way. On digging out the potatoes, he found that those which were planted near the tan were perfectly sound, while the others were diseased. He found, further, that potatoes were preserved in the winter by spreading tan on the floor of the storehouse.

The *Farmers' Magazine* recommends taking up the tubers before they have attained a state of maturity, rather than run the risk of obtaining greater weight by allowing them to remain longer in the ground to ripen." That potatoes are often injured by being allowed to remain in the ground too long, there can be no doubt; but it seems to us quite as clear that it is not safe to dig them "before they have attained a state of maturity." The unripe condition is as unfavourable for sound keeping as the over-ripe condition. These experiments, discussions, and opinions respecting our most useful vegetable, cannot fail to do good, and ought to interest everybody who has a square rod of garden ground to dig and plant.

Husbanding of Manures.

Summary of the discussion on the Husbanding of Manures, held at Utica and Albany, by ex-President A. B. Conger.

I. Where sufficient has been reserved for arable lands, barnyard manure may be spread upon pastures and meadows under the following restrictions:

(a) If spread early in the spring on pastures designed for immediate use, it should not be of the droppings of that species of animals intended to be placed in the pastures.

(b) It should never be spread upon meadows in the spring, as the coarser parts will be caught by the hay-rake, and mixed with the hay, imparting to it a musty smell, if not tainting and poisoning it with fungus.

(c) It may be evenly spread on meadows at any time after harvest, and lightly harrowed or bushed, especially if the after-math is heavy, so that the grass may not be smothered.

(d) The weather should indicate the absence of high winds, the approach of moderate rains, or the presence of copious dews, so that the ammoniacal portion of the manure may not be lost.

(e) On rapidly sloping lands a heavier top dressing should be applied near the summit, unless furrows such as are necessary in irrigation are made, so as to prevent the manure being washed with heavy rains to the bottom.

(f) In winter no manure should be spread on either pastures or meadows when hard frozen, even when most of the atmospheric conditions above alluded to are present, unless the surface is or soon will be covered with snow, and then only on ground either level or gently rolling, so that in case of a thaw the melting snows may not render the distribution of the manure comparatively useless.

II. Under a system of rotation of crops, as supposed in the question, the husbanding of manures is indispensable to thrift in farming, and is to be regulated according to the supply of litter and the method of feeding adopted.

III. On farms whose principal staple is grain, the amount of straw is not unfrequently in excess of the feeding material reserved, and in such case it is necessary to spread it profusely over the barnyard, that it may be trodden down by cattle and sheep and mixed with their droppings. In such cases, it is sufficient that the barnyard should be dished or provided with one or more tanks for the holding of the drainage of the mass; that fermentation should be allowed to proceed until the straw is disintegrated sufficiently either to turn the mass into heaps (into which the liquid contents of the tanks are to be conveyed by pumps

and troughs,) or drawn out into the fields for spring and fall crops—of which method as generally in all departments of the farm service, the labor that can be applied is the discriminating test.

IV. Where from the scarcity of straw upon a farm, its high price in neighboring markets, or its being an element of food prepared for stock, it is necessary to economize its use, the system of box or stall feeding is to be resorted to, and the husbanding of manures is determined as the feeding is either of animals to be fattened or reared.

V. In the former case, neat cattle may be placed in boxes not less than eight by ten feet, the bottoms slightly dished with a view to drainage, or being filled with muck or other absorbents, and the animal wintered with slight additions of cut straw as litter, so to prevent the loss of hair and other cutaneous affections, (which proceed from the heating of straw if too liberally supplied,) and the whole mass of droppings, etc., left until removed to the fields.

VI. In the latter case, that of the rearing of young animals a like method may be pursued, but if their value will admit of a greater regard being paid to cleanliness, etc.; the box should have a slatted floor of oak or other durable stripes one and a half inches thick, three inches wide, and half an inch apart, over a paved, clayed, or cemented floor, inclined so as to carry the drainage of the box into gutters leading to a tank, and the manure removed as often at least as once in six weeks, placed under cover of a roof either permanent, or of boards battened, turning on pins and moved by a long lever as in sheds for drying of brick, the liquid manure (if not used separately) being pumped from the tank and conveyed by troughs over the mass so as to prevent fire-lanquing. It used separately, the sheds are to be opened to occasional rains for the same purpose.

VII. The manure from animals stabled in the ordinary way is to be treated as last above described, and it is desirable that the manure shed should be constructed with access to it from a level below that on which the manure is deposited, so that in winter the manure may be carted out upon lands plowed in the fall, the fresh masses placed on top, preserving those underlying from being thoroughly frozen.

VIII. When sheep are alone raised, they should be kept under sheds with small yards connected therewith, and their droppings may be treated either as in the case of fattening or growing animals in the discretion of the owner.

IX. Where no portion of the manure is designed for top dressing of pastures, that of horses and neat cattle may be always advantageously placed under the same cover, their different capacities for developing heat operating favourably against over-heating.

X. As the value of straw as an article of food if cut up, mixed with feed, thoroughly wetted and allowed to stand in mass for a few hours so as to develop heat, or if steamed, is at its lowest price worth at least twice as much for food as for the manure resulting from its use as litter; where beds of muck or peat exist on a farm, these should be ditched and afterwards pared, so that by the use of these materials when dried the straw may be largely used as an article of food; a greater number of animals kept on the farm, and greater masses of manure made, and with material more valuable than straw as an absorbent and fertilizer, and for the preservation of the droppings of cattle, at a more uniform rate of temperature.—*Journal N. Y. Ag. Society*

A few Words about Lime.

LIME is not, as was once supposed, an *element*, but consists of the metal calcium united with the gas oxygen, and is properly an oxide of calcium, just as potash, soda, and magnesia, are oxides of potassium, sodium, magnesium. It is never found pure in nature, except occasionally in the craters of volcanoes, but is usually united with carbonic acid, for which it has a strong attraction. In this state it is neutral and insoluble in pure water. When limestone, or any other form of carbonate of lime, is exposed to a sufficiently high temperature, with access of air or moisture, the carbonic acid gas is driven off, and the lime which remains is called quick or caustic, from its strong alkaline re-action. When such lime is plunged in water for a short time, or water is poured upon it, heat is evolved, the lime swells, cracks, gives off much watery vapour, and finally falls to a powder. This powder, or slaked lime, is a hydrate of lime, water being chemically combined with it. In this state it is still caustic, though somewhat milder than when fresh from the kiln.

The rise of temperature is so great when large heaps of good lime are suddenly slaked, as to inflame gunpowder and scorch wood, it certainly exceeds, according to Pelletier, 500 degrees; and when the

operation is performed in a dark place, light is also evolved. All sorts of imaginary causes have been assigned to account for these phenomena. They are referable, however, to a very simple and universal law. All substances during their change from a gaseous to a liquid, or from a liquid to a solid state, evolve heat, and vice versa. The intense cold produced by liquifying ice or snow by admixture with salt, is a familiar instance of the latter; and the heat evolved in solidifying carbonic acid under intense cold and pressure, is sometimes dangerous evidence of the former—the expansion of air consequent on the sudden liberation of heat from the carbonic acid in the moment of congelation, not unfrequently shattering the vessel to atoms.

Lime in slaking will absorb one-fourth its weight in water; but the slaked lime is not more moist than before. The water unquestionably, therefore, is chemically combined with the lime, and becomes solidified; and it is simply owing to this solidification of the water that heat is evolved.

Caustic lime has a strong affinity for water and carbonic acid. When kept in a dry place it gradually slakes, cracking, splitting and crumbling to powder with the evolution of heat—which, however, is not so perceptible on account of the length of time during which the process is extended—just as though it had been slaked by pouring on water. In this case the lime has obtained the twenty-five per cent. of water it needs to slake it from the atmosphere. There is this difference, however, between air-slaked lime and that which is water-slaked. The former is slaked precisely as the latter by water, but it also absorbs carbonic acid from the air, and instead of being simply a hydrate of lime, as when water-slaked, it is a definite compound of hydrate and carbonate of lime, 42.6 per cent. of the former, and 57.4 of the latter. Air-slaked lime, therefore, is far from being so caustic as water-slaked lime—upwards of one-half of it being reconverted into the same chemical state as it was in before burning.

After the lime has absorbed sufficient water and is completely fallen to pieces, carbonic acid is absorbed much less rapidly, especially in damp situations. In fact, though there is a constant tendency in lime to return to the state of carbonate in which it existed previous to burning, yet, by mere exposure to the air it does not attain this state in any assignable time. In some walls six hundred years old, the lime has been found to have absorbed only one-fourth of the carbonic acid necessary to convert the whole into carbonate; in others, built by the Romans eighteen hundred years ago, the proportion absorbed has not exceeded three-fourths of the quantity contained in natural limestone.

When slaked in the ordinary way, by the application of water, lime falls to pieces with the absorption of but little, if any, carbonic acid. But when slaked and exposed to the air, the absorption of carbonic acid is at first very rapid, but it gradually becomes very slow, and probably the same definite compound of hydrate and carbonate of lime is formed as in the case of air-slaked lime.

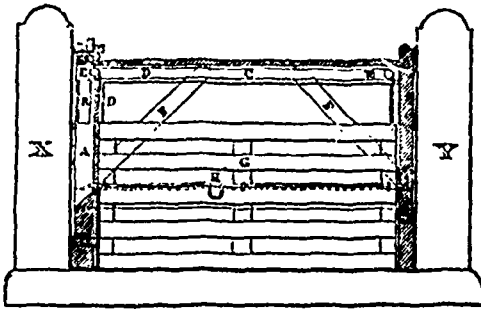
The original limestone, or any other form of carbonate of lime, then, is perfectly mild. By driving off the carbonic acid by heat, we get lime which is very caustic. By slaking this with water, we get a less caustic substance—hydrate of lime. By allowing it to air-slake, we get a still less caustic compound—a definite compound of hydrate and carbonate of lime. And by exposing it to the air for a sufficient length of time, we ultimately get the whole reconverted into its original mild form—carbonate of lime.

The commonly received notion that air-slaked lime is stronger than water-slaked lime, is an error. It is, in fact, not so strong.—*Rural Annual*

Save the Leaves.

THEY have a double value. First, in their natural state, as the best of all mulches. There is no protection against frost, and the effect of winter sunshine, to compare with forest leaves. In the woods they effectually protect tender plants and flowers, which die when subjected to the exposure of the garden. There is no better covering for strawberry beds and choice plants; and, for this purpose, a little brush is needed to keep them from blowing away. Secondly, leaves are a most valuable manure when decomposed. Leaf mould is considered by gardeners one of their most powerful fertilizers. In the compost-heap, the barn yard, the stable, and the pig-stye, they should be freely used. A pile of dry, clean leaves is an excellent resource for bedding animals during the late fall and winter. It greatly promotes the comfort of the animals, and adds not a little to the wealth of the dung heap.

Stovel's Self-Regulating Snow Gate.



THE above is an engraving of a self-regulating gate designed especially as a convenient and safe arrangement for the season of deep snow, when ordinary gates get blocked up, and are very troublesome. It was invented and patented by E. & S. Stovel of Mount Forest, County of Grey, from whom the right of manufacture and use can be obtained, on terms set forth in their advertisement, which appears on the last page of our present issue.

DESCRIPTION OF GATE.

- A. Heel Post on hinge, upon which the gate swings, and in which there is a slot or groove for the balance weight B to work in.
- B. Balance weight helping the upward movement of the gate by being fastened to the cords D to the inner frame of the gate G, thereby allowing it to be moved up or down easily.
- C. Top rail of the gate, on the under side of which the cords run, and pass over the pulleys E at each end of it.
- D. Cords, one end of which are fastened to the inner frame, and the other end to the balance weight.
- F. Outer frame, or body of the gate, forming a box or case for the inner to slide "up or down as required" in.
- H. A spring formed of a bent piece of wood, each end of which is attached to the end of a small rod running along one of the rails of the inner frame of the gate, and going into notches in the outer frame; so keeping the inner frame at any required height from the ground. By grasping the spring in your hand it draws the rods out of the notches, and so allows the gate to move up or down as required.

The advantages of this gate, as claimed by the inventors and patentees, are as follows:—

1. It is a strong, durable gate, that will work with or without snow.
2. Any farmer can make it himself.
3. It can be made cheaper than any other gate of the kind yet invented. The gate can be made for from \$2 to \$3, as there is no iron work required about it.
4. It will work equally well in winter, with two or even three feet of snow on the ground, as in the middle of summer, and will set as close to the snow as to the ground.
5. For side and back gates for farmers, it can be made without the cords and weight, as the inner frame can be raised by hand, it not being more than about 25 lbs. weight.

Cost of Steam Ploughing.

AT the dinner of the Watlington Society, Mr. Taylor begged permission to say a few words as to the cost of working a steam plough. He had taken some little trouble to ascertain the actual cost of working by steam, so that there might be no mistake about the matter. He had no wish either to understate or overstate the cost. It was a very expensive implement, costing with its tackle about £1,000. It was one of Fowler's; and having had it in operation between two and three years, he could now state pretty accurately what was the actual cost. He could scarcely have done this the first year; for he would tell them candidly that its working the first year was by no means satisfactory, there being so many breakages and interruptions, principally from the gross carelessness of the persons in charge of it; so that the expense was very great. He was glad to say, however, that its present working was most satisfactory; the breakages were very few, and the work done was very much greater than in previous years. He would just give the details. He first of all calculated interest on first cost at 5 per cent; then put down for wear and tear 10 per cent—making 15 per cent upon £700; for he did not take the whole £1,000.

the engine being employed three-tenths of its time in threshing, chaff cutting, sawing, grinding, &c., and therefore it was fair to reckon only seven-tenths. Fifteen per cent. on £700 came to £105 a year. That divided by a 100, the average number of days it worked in the year, gave about 22s. a day. For repairs of engine and tackle he put down 7s. 4d. a day; for coal, oil, and tallow, 15s. 6d.; wages 11s.; and water cart, 7s., making a total expense per day of £3 2s. 10d. The daily average number of acres ploughed had been eight, and the cost had therefore been 7s. 10d. per acre. Now he thought those who knew what sort of land it was would know very well that it could not be ploughed with horses in an average season for anything like the same sum. In fact, when he commenced farming he wanted more ploughing than he could manage with his own horses, and therefore applied to a neighbouring farmer for the use of some of his. The farmer at first consented to plough for him at 12s. per acre, but he very soon gave it up, and said he could not do it under 14s., and that he could better afford to have his horses remain idle than take less. Thus, as ploughing on strong land cost 7s. 10d. an acre, and horse ploughing 12s., there was difference in favour of the former of 4s. 2d. He thought that was a fair statement of the case.—*Farmers' Magazine.*

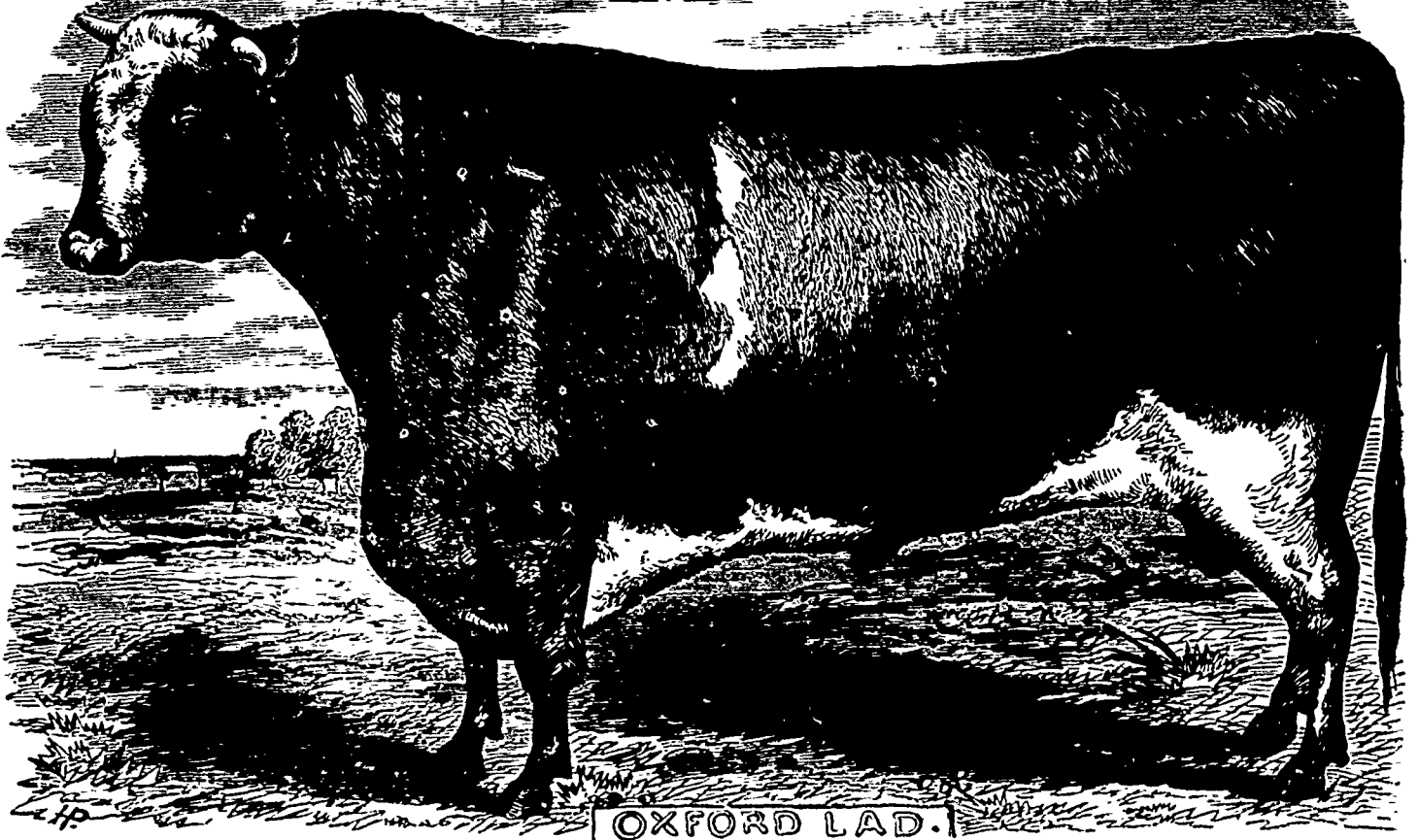
TRENCHING LAND.—We had a piece of garden soil turned up to twice the depth of the spade this spring, and planted thereon sweet corn. Alongside was another piece of ground not trenched, and planted with corn at the same time. The corn on the first piece of ground grew luxuriantly through six weeks of drouth, reaching ten feet in height, and the ears setting very thickly; while the other patch of corn, though highly manured, has not grown more than from five to seven feet in height, and is poorly furnished with ears. Would it not pay at this rate to trench the whole garden, and bring the rich subsoil, now hardened by long cultivation, to the top? We commend this example to all who doubt the benefits, pecuniary and otherwise, of deep ploughing and subsoiling.

USE OF POTATO TOPS.—While talking about potatoes, it may not be amiss to give a suggestion made by a friend the other day riding along the road, in regard to the use to be made of the tops. He recommended to place them around apple trees, where they would act, not only as a mulch at first, but afterwards as they decay, as a fertilizer. We have mentioned this experiment and think well of this use to be made of them. We know by actual analysis, that the potato vine contains a large percentage of potash, and this ingredient alone may be, and undoubtedly is, valuable as a fertilizer for all trees, inasmuch as the wood must be made up in part of this alkali. It is an experiment easily tried, and we hope that the hint may be acted upon and the results on the trees be carefully noted and reported.—*Maine Farmer.*

THE HOP CROP IN ENGLAND.—According to the following extract from the *N. Y. World*, the hop harvest in England has come considerably short the past season:—"The accounts from England, which now extend to very nearly the closing hours of the harvest, point to a deficiency of at least 40,000 bales, which is likely to reach 45,000—and may possibly extend to even 50,000 bales. The letter of our English correspondent is very full and satisfactory as to the condition of the crop at the moment of writing. It must always be borne in mind in considering estimates made after the crop has matured, that the estimate represents the maximum, and that, with a plant so exceedingly liable to disease and disaster as the hop, the probability of a variation from week to week is very great, and that this variation must always be in a descending scale."

POTATO JUBILEE.—If the potato-loving people of New England ever had occasion to hold a potato jubilee, they have now. During the severity of the drouth in June and part of July, it seemed that the potato crop would never grow again, and it was the general opinion that what had been planted would not be worth digging. The rains which came so providentially, and followed so timely all along until now, began to revive them, and they pushed along in double quick time—the tops flourishing and the tubers swelling—and now, at digging-time, every one is astonished at the size, fair appearance, and excellent quality of them. It seems like old times to roll out such noble and sound potatoes as are found in almost every field. We have not seen or heard of a rotten one in all our walks. The drouth, probably, used that disease up, and good bye to it. It is thought by some that there will be a million more bushels dug in Maine this fall than there was last year. We do not know how it will be, but this is certain, what have been dug thus far are of the best quality.—*Maine Farmer*

FIRST PRIZE FOUR YEAR OLD SHORT HORN BULL, AT THE PROVINCIAL EXHIBITION, HAMILTON, 1864.



OXFORD LAD.

The Breeder and Grazier.

Flax-Seed for Feeding Purposes.

A RECENT number of the *Irish Farmers' Gazette* contains an article on the above subject, which urges the economy of using the flax plant, i.e., the seed of it, for feeding purposes. Even the chaff of the bolls is said to be valuable as food for stock, while it is evident that if linseed-cake from which the oil has been pressed be so nutritive, the uncrushed seed must be far more so. Nevertheless, it appears that many Irish farmers are in the habit of taking the flax to the steeping-place with its valuable freight of seed unremoved, plunging the sheaves under water, and losing thereby rich feeding materials worth from £1 to £3 per acre. The *Gazette* recommends mixing some of the bolls with the steamed food which is given to cattle, and states that stock so fed soon improve very visibly both in condition and appearance, the smoothness and sleekness of their shining coats testifying to the benefit they receive from this addition to their bill of fare. At the present price of flax-seed in this country, there is little danger, perhaps, of any portion of the crop being allowed to go unripped; but should it get considerably cheaper, economy will dictate its being carefully preserved as winter food for animals.

LIVE STOCK IN FRANCE.—A Paris letter gives the following figures: It appears from official returns that there are in round numbers, 3,000,000 horses in the 89 departments of France, 400,000 asses, 330,000 mules, 10,200,000 horned cattle, of which 300,000 are bulls, 2,000,000 oxen, 5,800,000 cows, 2,100,000 yearlings, 4,000,000 calves; 35,000,000 sheep and lambs, 26,000 of which are merinoes, or half-breed; goats and kids, 1,400,000; hogs above one year old, 1,400,000; sucking pigs, 1,390,000.

Oxford Lad.

WE have much pleasure in presenting our subscribers with the above portrait of the Durham bull which obtained the first prize in the four years old class, at the late Provincial Exhibition in Hamilton. This fine animal was bred by J. O. Sheldon, Esq., of Geneva, N. Y., who possesses one of the best herds of this celebrated breed on this continent. "OXFORD LAD" is now the property of the Hon. David Christie, of the Plains, Brantford, and James Cowan, M. P. P., of Clockmohe, Waterloo. He is an animal of large dimensions, great length, wide-chested, expansive ribs, full, clear eyes, with a powerful, masculine expression. In fineness of symmetry he may not, perhaps, fully come up to the best specimens of the choicest herds of Britain, but take him "all in all," he must be pronounced a very superior animal; an excellent stock getter (as "Butterfly 2nd" on the ground incontestibly showed), and a very valuable acquisition to the Province. He possesses all the marks of a sound and vigorous constitution; qualities of inestimable worth in male animals in particular. The following is his pedigree, as registered in the American and Canadian Herd Books.

PEDIGREE OF OXFORD LAD (A.H.B., 4220)
Red and white; calved June 1st, 1860; bred by J. O. Sheldon, Geneva, N. Y.; got by Duke of Gloucester (E.H.B., 11382); dam, Oxford, by Romeo (13619); g. d., Oxford 5th, by Duke of Northumberland (1940); g. g. d., Oxford 2nd, by Short Tail (2621); Matchem Cow, by Matchem (2281); by Young Wynyard (2659).

A HORSE KILLED BY THE STING OF A WASP.—A few days since a horse belonging to Mr. Aldington, Gortcot Hall, was stung by a wasp, which caused him such violent irritation as to make him roll over and over with the view of relieving himself. At last he rolled into a ditch, and there kept kicking until he killed himself. This is the second horse which Mr. Aldington has lost by the sting of a wasp.—*Bell's Messenger*.

Out-door Feeding of Cattle for the Market.

THE following report of an interesting meeting and debate, in reference to stock-feeding, is from the Dublin correspondence of the *London Times*, dated September 30:—

A meeting of noblemen and gentlemen interested in the establishment of a prize class at agricultural shows for cattle fed partly on grass and partly on artificial food was held yesterday, in the lecture theatre of the Royal Dublin Society.

The Duke of Leinster occupied the chair, and said that, seeing the immense quantity of grass land in Ireland, and the great number of farms without farm buildings, where the tenant cannot stall-feed, it is very important that the grass-fed should be brought to the highest degree of perfection; and he therefore thought that there should be premiums for grass-fed cattle.

Mr. Charles Cannon, one of the originators of the proposed system of stock-feeding, made an explanatory statement. He said.—

"That the object of the promoters of this movement was not to oppose stall-feeding. For himself, he should be excessively sorry if any system were introduced which would interfere with that system, but it appeared strange that while about two-thirds of the animals produced in the country for fattening purposes and made fit for the butcher and for human consumption, were out-fed, there had been up to this day no recognition of their existence, no prize being given at any show for out-fed cattle. Under those circumstances, it had occurred to some gentlemen that, considering the low prices prevailing of late in the corn-market, it would be advisable if the corn grown in the country could be disposed of profitably in the feeding of cattle, out-door as well as in. In

the appropriation of grain or artificial food to cattle within the house they were necessarily limited by the amount of offices they had, and if they wished to extend it, it entailed a very considerable outlay on either landlord or tenant. But, if they fed out of doors, no contingent expense was entailed, and if at any future period the price of corn rose, they could apply some other description of food. When they found meat varying in price from 5s. to 7s. and 8s. per lb., the latter being well finished, they could understand how improved feeding would increase the value of the beast from 5s. to 8s. per cwt. In fact, it might be said that had they gone to market and purchased oilcake, and given it to the animals for which they now got a very low price, they would not alone have increased their value, but improved their land by grazing them upon it. In conclusion, he thought he might fairly add that the Irish exodus was a matter of serious consideration, it was something more than mere emigration; and if they could do something to remove the feeling of depression which was entertained by the lower classes, and arrange for them to obtain rather more continuous employment than they at present received,—good during the harvest, but ceasing during winter,—he thought they would stay emigration to a very great extent."

A long discussion ensued, in which various opinions were expressed as to the merits of the proposed system. The arguments of its opponents are very well stated in the following extract from a letter from Mr. Stephen Bland, of Abbeyleix, which was read at the meeting:—

"I am opposed to the movement—Firstly, as I consider the soil and climate of Ireland better suited to the growth of green crops and horse feeding, rather than (except in very sheltered and grassy localities) to out-door feeding for the meat market, secondly, as I think it a retrograde movement, for, if out-door feeding for winter became general, we should have recourse to the harder and coarser breeds of cattle, and give up the fine short-horns, which come to market much earlier, thirdly, as I view it to be against the principles of improved or high farming, for the calorific generated by the artificial food would be exhausted and lost, while the beast stood shivering under a hedge and all our steddings and comforts for cattle deemed essential for the procreation of meat, would be useless. Nature has provided the sheep with a coat to protect him against the cold, and he loves land rather than house and shelter, so that the above remarks are only intended to apply to neat cattle."

The meeting adjourned, after appointing a committee to report on the subject.

Points of a Short Horn Cow.

WE have been requested by a correspondent to publish the following list of the points considered of importance in judging a Short Horn Cow:

PENICREE.—Showing unbroken descent on both sides, from known animals, derived from herds found in Herd Books, English, American, or Canadian (?) without which an animal cannot compete in classes of thorough-bred cattle.

Points
Maximum

1. **HEAD**—Small, lean and bony, tapering to the muzzle.
2. **FACE**—Somewhat long, the fleshy part of the nose of a light, delicate colour.
2. **EYE**—Of great significance; should be prominent, bright and clear; ("prominent" from an adipose accumulation in the back parts of its socket, which indicates a tendency to lay on fat; "bright," as an evidence of good disposition; "clear," as a guaranty of the animal's health. Sluggish eye belongs to slow feeder.)
1. **HORNS**—Light in substance and waxy in colour; symmetrically set on the head. Ear large, thin, with considerable action.
2. **NECK**—Rather short than long, tapering to the head; clean in the throat and full at its base, thus covering and filling out the shoulders.
1. **CHEST**—Broad from point to point of the shoulders, deep from the anterior dorsal vertebrae to the floor of the sternum, and both round and full just back of the elbows; "thick through the heart." Most important points in the animal.
5. **BUSKET**—Very attractive and selling point; indicates a disposition to lay on fat throughout the frame.
4. **SHOULDER**—Where weight, as in Short Horn, is the object, should be somewhat upright and of good width at the points, with the blade-bone just sufficiently curved to blend its upper portion smoothly with the crops.

8. **CROPS**—Must be full and level with the shoulders and back (most difficult points to breed right in Short Horn.)
 8. **BACK, LOINS AND HIPS**—Should be broad and wide, forming a straight and even line from the neck to the setting on of the tail; hips or hucks round and well covered.
 5. **RUMPS**—Laid up high, with plenty of flesh on extremities.
 2. **PELVIS**—Should be large; indicated by width of hips and the breadth of twists.
 3. **TWISTS**—Should be so well filled out in its "seam" as to form nearly an even and wide plain between the thighs.
 5. **QUARTERS**—Long, straight, and well-developed downwards.
 1. **CARCASS**—Round; ribs nearly circular, extending well back.
 3. **FLANKS**—Deep, wide, and full in proportion to condition.
 2. **LEG**—Short, straight, and standing square with body.
 3. **PLATES**—Of the belly, strong, and thus preserving nearly a straight underline.
 2. **TAIL**—Flat and broad at its root, fine in its cord, and placed high up, and on a level with rumps.
 2. **CARRIAGE** of an animal gives style and beauty; the walk should be square and the step quick; the head up.
 15. **QUALITY**—Very important point, indicating thriftiness, feeding properties, and general value of animal. If "tough" be good, some deficiency of form may be excused; but if it be hard and stiff, nothing can compensate for so unpromising a feature. In raising the skin from the body between the thumb and finger, it should have a soft, flexible, and substantial feel, and when beneath the outspread hand, it should move easily with it and under it, as though resting on a soft, elastic, cellular substance, which, however, becomes firmer as the animal "ripens."
 2. **COAT**—Should be thick, short and mossy, with longer hair in winter, fine, soft and glossy in summer.
 3. **UDDER**—Pliable and thin in its texture, reaching well forward, roomy behind, and teats standing wide apart, and of convenient size.
- 100 points constitute a perfect animal.

Neats-foot Oil.

NEAT'S-FOOT oil is extracted from the foot and bones of the legs of neat cattle. Hence the name which it has received. Neat signifies "cattle of the bovine genus, as oxen, bullocks, and cows." The process of obtaining this kind of oil is very simple, and many farmers often throw away enough of feet annually to furnish oil enough to keep all their harness, shoes, and leather machine belts in the best condition. By breaking the bone of a leg of a fat bullock or cow it will be found full of an oily substance which, often appears as rich and edible as a roll of excellent butter. This is neat's foot oil, and it is sometimes surprising to see how much a single foot and leg will yield when properly treated. In order to extract the oil, wash the hoofs clean, then break up the shin bones, the finer the better, and cut the hoofs and bones of the feet into small pieces. Then put them in a kettle of any kind, and pour in water enough to cover the bones. The kettle should never be filled so full that the water will boil over the top of it. The finer the bones are broken, or cut, or sawed, the sooner the oil will be driven out. Now let the kettle be covered as tightly with a lid as it can be conveniently, and boil the bones thoroughly all day. Of course it will be understood that more water must be poured into the kettle as it evaporates. The object of covering the kettle with a close lid is to retain the heat as much as possible, and thus expel the oil from the bones. The hot water and steam will liquify the oil and expel it from the bones, when it will immediately rise to the surface of the water. Therefore, it is very important that the water should not be allowed to evaporate so low that the oil that has risen to the surface of the water should come in contact with the dry hoofs and bones, as much of it will be absorbed by them and will be lost, unless it be again expelled by boiling. When there appears to be oil enough on the surface of the water, pour in a pailful or two of cold water to stop the boiling, or let the fire burn down. Now dip off the oil into some clean vessel, and boil them again until there is oil enough to be dipped off again. The oil that is obtained by the first boiling is much purer than that which is obtained at the second or third boiling. There will now be some water among the oil, which must be evaporated; therefore, put the oil in a clean kettle and heat it just hot enough to evaporate the water, and the oil will be ready for use. Great care must be exercised in heating the oil so as not to

burn it. As soon as the oil begins to simmer a little the oil may be removed from the fire, as the water has evaporated. Water among oil heated to the boiling point will be converted into steam almost instantaneously, as may be seen by allowing a few drops to fall into boiling oil or hot lard. Let the oil be kept in a jug corked tightly, and it will be ready for use at any time for years to come. In very cold weather, however, it may require a little warming before using it.—*Country Gentleman.*

Hog Feeding in Summer.

To the Editor of THE CANADA FARMER:

SIR,—The various communications which have recently appeared in your paper on the subjects of hog-raising, hog-feeding, and pork-packing, must have met with some attention from your readers, and will, I hope, have a good result in helping to advance a large and prosperous pork trade in Canada.

In this letter I have another word to say about feeding hogs in summer. Within the last few years the English demand has largely increased for summer ice-cured bacon, and old stale parcels of winter cure become almost unsaleable at a reduction of 10s. to 12s. per cwt. under the price of new fresh arrived summer ice-cured bacon, which is often very scarce, and best American was worth, by last advices, 54s. per cwt. Many of our farmers have no doubt been unaware of this feature in the bacon trade; but knowing it will, I feel sure, think it worth some consideration—they would only require to keep over a few bushels of peas for the purpose, and we all know how rapidly hogs will fatten in the warm pleasant weather, and any attention our farmers may give to the improvement of breeding and feeding will no doubt be well rewarded. Let them compare, even to-day, the prices of their pork and beef. Hamilton curers are paying at present 5 cents alive for all the hogs they can get, which are not half a supply. Oxford county alone has contributed nine-tenths of the number, and well pleased the farmers of Oxford express themselves to be with the high price they are getting. If any narrow prejudice ever existed against selling hogs alive instead of dead, it has already been completely removed from that district.

SAMUEL NASH.

Hamilton, 22nd Oct., 1864.

JUMPING CATTLE.—In number sixteen of this journal, p. 244, we inserted an item from the proceedings of the American Institute Farmers' Club, which stated that jumping cattle might be cured of their troublesome propensity by clipping off the eyelashes of the upper eyelids. This prescription was given on the authority of Samuel Thorne, the great breeder, of Dutchess County, N. Y. The *Country Gentleman*, of the 20th ult., states that on further trial the cure has failed. Our contemporary says:—"We learn on enquiry of Mr. Thorne, that although on a first trial this experiment seemed successful, farther experience showed the contrary result. The troublesome oxen referred to were apparently cured by it for a while, but as the repetition of the operation, when they resumed the old habit, was of no avail, he was forced to ascribe their temporary good behaviour before to other causes."

VENTILATING STABLES.—A writer in the *London Times* says that the investigations of the Barrack Improvement Commission, on the management of cavalry horses, have proved, "beyond question, that the best form of building is a one-storied stable and only two rows of horses, the ventilation to be by the roof, and formed by a louvre 16 inches wide, carried from end to end, and giving four square feet of ventilating outlet for each horse. The stables recommended to be built in future would give each horse 100 feet of superficial, and 1605 cubic feet. A course of air-brick would be carried round at the eaves, giving one square foot of inlet to each horse; an air-brick is introduced, about six inches from the ground in every two stalls; there is a swing window for every stall, and spaces are left below the doors. In this way, and by attention to surface drainage and roof lighting, it is anticipated that stables will become perfectly healthy. In old stables, ventilating shafts are to be carried up, and air-bricks introduced. More window space is to be given.

IMPROVED STOCK FOR STORMONT.—The officers of the Stormont Agricultural Association who were present at the Provincial Show, made an important addition to the valuable stock which the Association already owns. The animals now purchased are five magnificent Cotswold rams, from the flock of Mr. Snell, a gentleman whose name has figured honorably for some years past in the list of exhibitors at the Provincial Exhibition. One of the rams is an imported animal the rest have been reared in this country. The President of the County Association, Mr. Ronald G. Macdonald, has also purchased two fine ewes of the same breed. The Stormont Agricultural Association in a very quiet way, is doing a most important work by their policy of introducing good stock; and it would be well if the Directors of other associations would imitate a course which has already done incalculable good in Stormont, and which in each succeeding year will be more productive of advantage to the farmer, and through him to the country at large.—*Cornwall Freeholder.*

CORN AND BARLEY MEAL.—An experienced and skilful fattener of animals recently expressed the opinion, as the result of long trial, that a mixture of equal parts of barley and corn meal was greatly superior to either alone; and that 45 lbs. of corn thus used were more than equal to 60 lbs. of corn used alone. It may not be necessary to mix them in equal proportions, and if, as is now the case, barley should be somewhat higher priced, doubtless one-third would answer an excellent purpose. The subject is commended to the careful attention of farmers, now in the midst of the fattening season, and the results of their experience are requested.—*Country Gentleman.*



The Dairy.

Cheese Factories in Canada.

As our readers are doubtless aware, a beginning has already been made in the establishment of cheese factories in Canada. They have been found to succeed admirably among our American neighbours, and there is no good reason why they should not succeed equally well in this country. The honour of introducing these factories into Canada belongs, we believe, to Mr. A. Smith, of Norwich, who has had one in operation during the past season. A second has also been started by Mr. S. Farrington, formerly of Herkimer County, N. Y. Respecting it, we find the following account in a recent issue of the *Hamilton Spectator*:—

“It is built on the farm of C. V. Delong, Esq., a plain neat-looking wooden building—not costing, we should imagine, over \$100 complete. On the ground floor are large double vats in which the milk is placed. These vats hold some 100 to 500 gallons of milk. The milk is delivered by the farmers in the neighbourhood twice a day in hot weather, and at the present season in the morning only. The outside one is filled with water which is used either hot or cold as required. They have used, during the present season, the milk from 130 to 140 cows. It is bought from the farmers and paid for generally in cheese, at the rate of one pound of cheese for every 10 lbs. of milk less a charge of 2c per lb on the cheese for handages &c. At this rate and placing the cheese at 20c per lb the yield of ten average cows, we were informed, would be about \$12 50 per week. The curing room, which occupies the whole of the second story, is devoted entirely to this purpose, and is arranged with very ingeniously constructed stands for facilitating the turning of the cheese. A cheese of 100 lbs. can be turned by a boy or girl of 11 years. In this room of Mr. Farrington's factory, we found 200 cheeses, weighing about 50 pounds weight each. These are intended for shipment to England. Another very important item about the factory is the whey, which in this establishment has been used, and has fed some fifty hogs during the season, with the addition of a very small quantity of grain. As to the cheese made, we can vouch for its being quite equal to any American cheese we have ever tasted.”

Refractory Butter.

A LADY correspondent of the *Maine Farmer* thus writes to that paper, from her western home in Minnesota:—

“A farmer's daughter in your own State, I used to read three sides of the *Maine Farmer* for myself, and one for my father. A long time has elapsed since I saw a number of your paper; but having wandered away to the West as a teacher, and suddenly been transformed into a housekeeper on the prairies, my hard experience in butter-making, and final victory, dear bought I can assure you, brought you back fresh to my mind.

“We commenced with one cow, and now have three; and for over two years I remember but very few times the butter has come to my satisfaction. At first it readily formed itself into minute globules, which persistently refused to unite, and were only brought into a proper condition by passing them through a flour sieve. Again they were too small for even that operation, and two days churning failed to produce the required adhesiveness. I questioned every one I saw. I tried heat and cold; dash, patent, and thermometer churns; up stairs and down cellar; fast and slow; sour and sweet; with scoldings and tears; with faith and works; and with lame arms and blistered hands.

“This summer the climax came. The only way I could gather my butter was to put my hands in the butter-milk and by continually opening and shutting them, at last bring it together. And all this after some three or four hours churning. At last a neighbour said it acted as if the cows had garget, and said if they had, the milk would appear stringy. This appearance I had noticed some two or three times since I had lived here. She also remarked that often their had been so bad they could not strain it, and that they gave saltpetre for it; and were in the habit of giving it to their cows every month. I immediately tried it. At the next churning I had over four gallons of cream, a part of which was taken from milk given by the cow before she had received her dose. I therefore dissolved a quantity of saltpetre equal to about the size of three common sized peas, and added it to the cream before churning. The effect, to me, was almost miraculous. Had I given vent to my feelings, you might have heard me sing ‘There is rest for the weary,’ all over your ‘pine clad State.’ About a teaspoonful is considered a fair dose for a cow.

“Talking with an old man, a resident of Illinois, he said that saltpetre was an infallible remedy for the milk sickness, of which they have so much in that country, and that if given to cattle every week it was an effectual preventive. Perhaps everybody but me knew all this before, but for fear they did not I thought I would tell you.”

Ten Rules for Making Butter.

In making good butter, there are several nice operations to be gone through with, which require an eye to cleanliness, forethought, and some little experience:—

1. On milking clean, fast, yet gently, regularly twice a day, depends the success of the dairyman. Bad milkers should not be tolerated in a herd; better pay double price for good ones.

2. Straining is quite simple, but it should be borne in mind that two pans about half full each, will produce a greater amount of cream than the same milk in but one pan; the reason of this is the greater surface.

3. Scalding is quite an important feature in the way of making butter in cool weather; the cream rises much quicker, the milk keeps much longer, the butter is of a better colour, and churns in one-half the time.

4. Skimming should always be done before the milk becomes loppered; otherwise much of the cream turns into whey and is lost.

5. Churning, whether by hand or otherwise, should occupy forty or fifty minutes.

6. Washing in cold soft water is one of its preserving qualities, and should be continued until it shows no colour of the milk by the use of the ladle. Very hard water is highly charged with lime, and must in a measure impart to it alkaline properties.

7. Salting is necessarily done with the best kind of ground salt; the quantity varies according to the state it is taken from the churn—if soft, more; if hard, less; always taking the taste as the surest guide.

8. First working, after about twenty-four hours, is for the purpose of giving it greater compactness.

9. Second working takes place at time of packing, and when the butter has dissolved the salt, that the brine may be worked out.

10. Packing is done with the hands or with a butter mull; and when butter is put into wooden vessels, they should be soaked two or three days in strong brine before using. After each packing cover the butter with a wet cloth, and put a layer of salt upon it; in this way the salt can easily be removed at any time by simply taking hold of the edges of the cloth.

Butter made in this way will keep any length of time required.—*Maryland Farmer and Mechanic.*

Churning by Horse-Power.

THE mode of churning in one of the many good dairies in Pennsylvania,—that of Mr. J. Comfort, of Montgomery county,—is as follows: He uses a large barrel-shaped churn, of the size of about two hogsheads, hung on journals supported by a framework in an adjoining building. It is worked by machinery in a rotary motion, by a horse travelling round in a circle. The churning commences about four o'clock in the morning in summer, the cream being poured into the churn and the horse started. When the butter has come, a part of the buttermilk is removed by a vent hole in the churn. Then, without beating the mass together, as is usual, a portion of the butter and its buttermilk is taken out by the spatula and placed in the bottom of a tub, covered with fine salt, and spread out equally to a proper depth; then the surface of this butter is covered with salt, and another portion of butter and buttermilk taken from the churn and spread over the salted surface in the same manner, and salted as before, thus making a succession of layers, till the tub is full. The whole is then covered with a white cloth, and allowed to stand a while. A part of this butter, say eight or ten pounds, is then taken from the tub and laid on a marble table, grooved around the edges, and slightly inclined, with a place in the groove for the buttermilk and whey to escape. It is then worked by a butter-worker or brake, turning on a swivel-joint, which perfectly and completely removes the buttermilk, and flattens out the butter into a thin mass; then the surface is wiped by a cloth laid over it, and the working and wiping repeated till the cloth adheres to the butter, which indicates that the butter is dry enough, when it is separated into pound lumps, weighed and stamped, ready for market. The rest of the butter in the tub is treated in the same way.

It will be seen that this method avoids the ordinary washing with water, not a drop of water being used, from beginning to the end. It avoids also the working by hand, which in warm weather has a tendency to soften the butter. In the space of about an hour a hundred pounds are thus made, and its beautiful color and fragrance preserved. If it happens to come from the churn soft, it hardens by standing a little longer in the brine.—*Clinton's Dairy Farming.*

Cheese per Gallon of Milk.

In family cheese-making there is considerable difference in the quantity of cheese produced by different persons from a given quantity of milk. A skillful manufacturer should, during the season, average a pound of curd cheese from a gallon of milk, beer measure. When at the Rome factory in June, 1862, I was told that 600 cows were then producing daily about 1,450 wine gallons of milk, which turned off 1,250 lbs. of pressed curd. The curd at this factory was pressed into eight cheeses. At another factory, where the milk of 400 cows was used, the produce was 965 gallons, beer measure, making 1,120 lbs. of pressed curd, or about 114 lbs. of curd to 100 gallons of milk. At this factory the curd was pressed up into four cheeses of about 280 lbs. each. Milk varies in quantity at different seasons of the year. In the fall the quantity decreases; it is richer, and some cheese manufacturers deem its condition too thick to be worked with the best advantage into cheese; they therefore thin it down by adding a gallon of water to ten gallons of milk. This dilution, it is claimed, produces a better curd.—*X. A. Willard, in Trans. of N. Y. Agr. Soc.*

A SECRET FOR A FARMER'S WIFE.—While the milking of your cows is going on, let your pans be placed on a kettle of boiling water. Turn the milk into one of the pans taken from the kettle of boiling water, and cover the same with another of the hot pans, and proceed in the same manner with the whole mess of milk, and you will find that you have double the quantity of sweet and delicious butter.—*London Journal.*



The Apiary.

Dr. Cumming on Bees, Bee-hives, and Bee-Masters.

We observe in a recent English paper a report of the inaugural lecture of the tenth session of the Liverpool Young Men's Christian Association, which was delivered recently in the hall of the Collegiate Institution, by the Rev. Dr. Cumming, on the subject of "Bees, Beehives, and Bee-masters." The Rev. R. W. Forrest occupied the chair, and there was a large audience. The Rev. Mr. Forrest having opened the meeting with prayer, the Chairman briefly introduced the lecturer, referring to the high estimation in which Dr. Cumming was held as a public lecturer, and his versatile talent, as shown by the widely different subjects upon which he lectured. The lecturer commenced by explaining why he had chosen this subject and how he had acquired his information. He was in the habit, with his wife and children, of going down to a cottage in Kent in the summer months, and, as had been wisely said, the bow must not be always bent, he had sought out amusement in hours that he could spare from those duties which devolved on him as a minister and teacher of Christ, so that he had found that amusement in studying the hive and the result of that study was the observations which he would lay before them. At his cottage he had nearly a dozen hives, some of them had glass windows, and some had not. Frequently during the day he sat by these hives, listened to the music of the inhabitants, and watched their habits, and jotted down such observations as occurred to him. It might be thought that the bee was so little that it was not worth studying, but he scarcely knew whether to admire most, God in things magnificently great, or God in things minutely small. Having pointed out that the habits of the bee were closely studied by the ancients, the lecturer proceeded to describe the inhabitants of the hive. There were not three different kinds of bees, but three different species of bees in the same hive—the queen bee, the working bee, and the drone bee. There was a division of labour among the working bees. There were the bees that collected the honey, bees that collected bee-bread for the nourishment of the young brood, bees appointed to shape the cells, others to guard the hive; and, lastly, bees to ventilate the hive. It was a curious fact that the honey bee did not go from flower to flower, but selected one flower, upon which it settled, and labored at that single flower. He could take any of his bees in his hand without any fear of their stinging him; but, if a stranger went near, the guards at once suspected him, and immediately flew at him. The sentinels relieved each other at intervals, mounting guard three or four at a time. If a hive were watched, it would be found that those who were appointed as ventilators, came to the mouth of the hive four or five at a time, and, using their wings as fans, kept up a current of air, so that the other workers labored in a moderate temperature. It was a curious fact, and well worthy of notice, that a bee-master, in order to ventilate the hive, made a hole in the top, the bees immediately closed it up. From this it would seem that the bees knew that fresh air was essential to healthy life, but that draught was pernicious. In describing the queen bee, and the great deference and attention paid it by the other bees, the reverend doctor said that he had observed the bees were very fond of strong drink, and especially of rum sweetened with sugar. On one occasion he found the bees in one of his hives declining, and he gave them some rum to revive them. Instead, however, of using it as a medicine, they drank to excess; for, on looking into the hive subsequently, he found the ladies in waiting, instead of behaving themselves in their usual decorous manner, tumbling about, and the queen herself very tottering. In fact they had got so drunk that, though it was November, they thought it was swarming time, and rushed out of the hive, but the frosty air soon sent them back to their hive and to their sober senses. Of drones, or male bees, there were from 1,500 to 2,000 in a hive. It might be asked what was the use of 2,000 drone bees in a hive, since the queen only selected one as her husband, and if the

husband died never married another but remained a widow. Well this was a puzzling question. He had made a discovery, which led him to adopt a theory which he must acknowledge had been opposed by certain able apiarians. During the breeding time, when the young bees were developing in the cells appointed for that purpose, the temperature was never less than 80 or 90 degrees. During the cool of the morning, until twelve at noon, the drones remained in the hive. At twelve they went out for an hour or so, and then returned to the hive, remaining until the evening. He noticed that the time of their absence was just when the sun was the hottest, and the drones being fat, he believed they remained in the hive to keep up the heat. The drones were drunken, lazy fellows. As soon as the queen had selected her husband the other males began to sip the honey, never doing anything to keep up the stores of the hive. The other bees must have learned somewhere the maxim that if any man will not work neither shall he eat, for as soon as they began to fill the hive with honey, they garroted the drones and cast them out of the hive. The lecturer then pointed out the folly and wickedness of those who, using the common straw hives, burnt the bees to get the honey. There were three different kinds of hives by which this might be avoided—the storey, the collateral, and the nadir hives. By these methods the bee-master saved his bees, and obtained honey greater in quantity and purer in quality. He thought that any one living in the country might make £8 or £10 a year by keeping 1 es, so that a cottager might thus pay his rent. Having described bee swarming, the lecturer enumerated the enemies of the bee—the wasp, the spider, the tomtit, the snail, and the death-head-moth. The greatest enemy of all, however, was man, when he obtained the honey by using sulphur. In speaking of the excellent memory of the bee and its affectionate nature, the lecturer said that he might in the summer time be frequently found covered with his bees, who all knew him and therefore would not sting him. The reverend doctor concluded by pointing out the lessons to be learnt from the habits of the bee. Throughout he never lost an opportunity of pointing a moral, nor indeed of making a hit at any form of error, whether in the secular or theological government. The lecture was interspersed with illustrative anecdotes, and altogether was listened to with much interest and attention.

Veterinary Department.

Leaping the Horse.

Now let us have a jump. On Manhattan island town lots are more abundant than ten-acre fields, and brick fronts more numerous than stone walls and rail fences; for all of that to him who feels inclined, the opportunities for a dash at a fence are not entirely wanting—he who seeks will find many a good field that has not been partitioned off into lots of twenty-five by a hundred.

A fence being found, how to get over it? Start your horse at a fair gallop, and when within a few yards of the obstacle, by the firm pressure of the legs give him to understand that you intend he shall go forward and over it, which, when the moment arrives, he will do, and as he comes to the ground on the other side, sustain him lightly in the mouth. Is this all? asks the reader. This is nearly about all. If you only try it you will find it so easy, that you will be surprised that you should have done it, or rather, that you should have had so little to do in the matter. I have purposely put it thus simply, for the reason that the only danger of not succeeding in the leap is that the rider may overdo his part of the business. Nearly all that you have heard about lifting the horse to the leap, rising as he rises and throwing yourself back as he falls, is twaddle. Should a novice try to conform to all this stuff he will find himself on one side of the fence and his horse on the other. It is an error to lift the horse to the leap, because as you are about to call on him to make an extraordinary exertion, he needs all his natural powers unrestrained for the effort; any interference with his mouth at that moment will only embarrass him. But, say some, how is the horse to know when to rise? The answer is plain: the animal's instinctive knowledge of his own power is, to him, a better guide than the fallible judgment of the rider; the horse knows best at what moment and at what distance from the obstacle to rise; any interference with him at so critical a time would only mislead him. So, as he nears the obstacle, do nothing more than to make him understand that he must jump.

As to rising with the horse and throwing yourself back as he falls, the chances are, should you attempt it, you will so derange your seat and disturb your perpendicular, that you will either slip, over his

croup or go over his head. These motions may be necessary to those who hog their backs and round their shoulders, but the pupils of a more enlightened school of horsemanship have only to keep in mind those principles of the art applicable, not only to the gait, but also to the motions and actions of the horse. Their only care should be, to keep a firm knee-hold, the small of the back well in, the loins supple; these will maintain the body in its perpendicular, you will become a part of the horse, his movements will adjust your position, and together you will go over the obstacle. In standing leaps, owing to the suddenness of the motion, you will have to do more—as in running leaps, keep the small of the back well in, the loins supple, and throw yourself a little forward, not by leaning forward, hogging the back and rounding the shoulders, (thus throwing the body toward the croup,) but the reverse—by expanding the chest, bringing the body to the new perpendicular and maintaining its weight in the centre of the saddle. A few leaps will make you quite proficient, and you will delight in the exercise. At the start, you should first practice running leaps; they are much the easier, and success will give you the confidence to try those from a halt. Never mind whether or no your horse has been taught to leap, nature has given him the capacity—rush him at it, and although he may blunder a little at first, he will soon come to like it—thus the instruction of the horse and rider will keep equal paces.

I cannot too much impress upon the reader the necessity of leaving his horse's mouth alone when about to leap. Having had some experience kiting about a rough country on horseback, I soon discovered that my horse knew quite as much about jumping as I did, and the less I interfered with him the better he performed.—*Cor. Wilkes' Spirit.*

Contraction of Horses' Feet.

Mr. JENNINGS, late Professor of Anatomy in the Veterinary College of Philadelphia, has written much and well for the different journals on the diseases of animals, and the following article on the contraction of the feet of horses strikes us as a very clear and satisfactory statement of its cause and remedy, and deserving of attention:—

"The tendency of a horse's feet, in a healthy condition, is to expand whenever the weight of the body is thrown upon them. Being a very complicated piece of mechanism, they are very easily disarranged, and once out of order are difficult to repair; hence the necessity of preserving them in a sound condition.

CONTRACTION IS CAUSED—1st. By cutting away the bars of the feet, which are the mainstay for the support of the quarters. 2nd. By opening the heels, (as the smith calls it,) cutting away a portion of the frog, in consequence of which the moisture of the frog becomes absorbed, losing its elasticity, and destroying its function, thus exposing the foot to injury by concussion. 3rd. By standing upon plank floors. 4th. By improper shoeing.

An ordinary observer will, upon an examination of the common shoe, notice that it inclines from without inward at the heels, thus forming a concavity for the foot to rest in; the consequence is a lateral resistance to the expansion of the hoofs, when the weight of the animal is thrown upon them. The effects of this resistance is to force the heels together, creating pressure upon the sensitive parts within the horny case, establishing fever by which the moisture of the hoofs is rapidly absorbed, rendering the hoofs hard, brittle, and liable to crack, and not unfrequently causing corns, navicular joint lameness, bony deposits to be thrown out from the lateral wings or processes of the coffin bones, rendering the animal permanently lame or unsound. These are but few of the bad effects arising from contraction; enough, however, to serve our purpose at present.

REMEDY.—Preserve a level bearing by making the shoes perfectly flat on the quarters, so not to interfere with the expansion of the feet. Should contraction already exist to considerable extent, bevel the shoes slightly outward at the heels, in order to facilitate expansion. Care should be taken not to bevel too much, or bulging at the lower part of the hoofs at the quarters will be the result. The shoes should in all cases be forged and not twisted, as is sometimes done to save trouble by the bungling smith. Proper applications to soften the horny parts and promote elasticity, should also be used. Such preparations are put up in the form of hoof ointment.

KIDNEY-WORMS IN SWINE.—The presence of kidney-worms may generally be known by the animal appearing weak across the loins, and sometimes by a weakness in one or both hind legs. As soon as these symptoms appear, give the animal corn soaked in lye of wood ashes, or strong soap-suds; at the same time rub the loins with spirits of turpentine.—*N. E. Farmer.*

Sheep Husbandry.

Portable Sheep Shed.

A CORRESPONDENT of the *Ohio Farmer* writes to that paper from Huntington Lorain County as follows.

Mr O T Baker of this township has just completed a model of a portable sheep shed, and I believe the invention to be one that will meet with general favour among sheep men. Its advantages are simplicity of structure, cheapness and convenience. Mr. Baker calculates that a shed sufficient in size to conveniently accommodate forty sheep can be built with one thousand feet of rough lumber, consisting of a few scantling and inch boards.

The shed is built in two parts, each part complete of itself, if desired, but more convenient when the halves are put together. The shed complete stands upon four sills, four by six in size, and rounded at the lower-end corners so as to form runners. One horse will easily draw one-half of the shed to any desired locality, or a span of horses will move the whole structure. The two parts of the shed are held together by hooks at the top near the ridge, and by the grain troughs at the bottom. The studs, four in number, of each half stand parallel and tight together, forming a row through the centre of the building; the grain troughs slide between the studs, the ends projecting each side half the thickness of the studs, and hold them firmly together.

The troughs are provided with lids hanging on leather hinges so that they may be covered after feeding grain and kept clean while sheep are passing over them from one hay rack to another. The troughs can be easily lifted out and cleaned should they get unclean by neglect. The roof of the shed is made of boards battened or double, one half projecting at the ridge a few inches and the other fitting neatly under. The hay racks are around the wall and so constructed that each sheep has a stall to himself, the racks are filled from the outside. The building is well ventilated by slat windows so made as to keep snow or rain from beating in, and when the doors are closed the sheep are as secure from storms as if in a barn.

Mr. Baker has also provided a portable fence, light but strong, to go with the sheds, so that a yard can be constructed in a few moments of any desired shape or size. Now it appears to me that this invention is going to entirely obviate the difficulty of feeding stock in the open field upon the ground, or of drawing them to the barn or shed. Mr. Baker has applied for a patent, which without doubt he will succeed in obtaining; but if he does not, the benefit of the invention will be freely given to the public.

Peterborough Ram Fair.

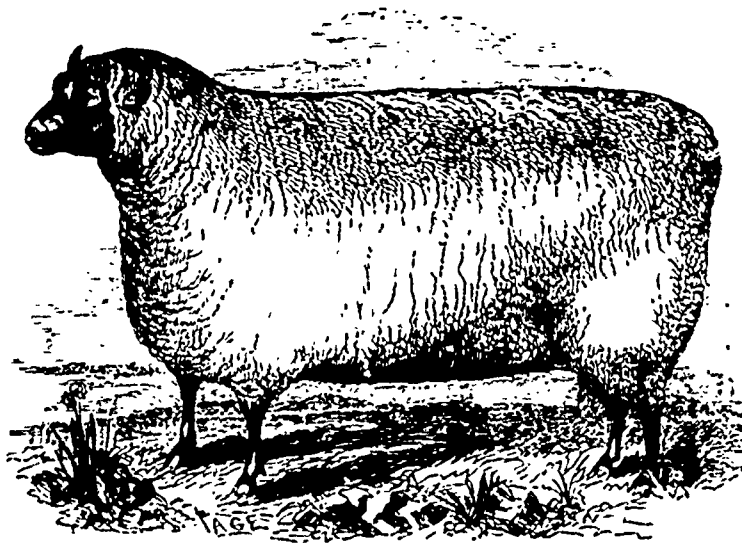
THE ancient market town of Peterborough, England, being now a great centre of railway communication, and therefore well situated for holding any great mart or sale, the sheep-breeders in that region of the country have recently formed an organization, and established a yearly fair for the sale and letting of rams. The first fair was held in September, when the large number of 458 rams were offered for sale, besides a number of sheep and lambs. To show the prices given, we may mention a few of the sales effected. Mr. Kirkham, of Audleby, disposed of 40 rams. The highest price realized was £75 for "a sheep with fine character, and particularly good head, straight legs, and heavy fleece." The sum these 40 sheep made was £801 10s., or an average of £20 3s. 2d. each. Mr. Topham, of Welford, sold 30

rams at an average of £17 15s. 4d. each. Mr. Caswell got for 50 shearling rams £885 10s., or an average of £17 11s. each. Mr. Charles Clarke, of Ashby de la-Laund, realized for 52 sheep, an average of £14 2s. These prices indicate that English farmers are both wide awake to the importance of sheep husbandry, and anxious to keep their flocks in an improving condition. We should like to see more of this spirit in our country. There are evidences of its being at work in various quarters, but sheep-farming is far too much at a discount among us, and too little encouragement is given to those who, by valuable importations and careful breeding, are striving to improve the flocks of Canada.

Southdown Sheep.

THE accompanying illustration represents a very fine two-shear Southdown ram, which obtained the first prize at the late Provincial Show in Hamilton, belonging to F. W. Stone, Esq., Guelph. Mr. Stone's Southdown flock contains many superb animals, derived from importations from Mr. Jonas Webb; and they bear clear evidence of the purity of the Abraham blood.

This breed has for a very long period been the



favourite in the London market, but its true merits as a breed have not been generally understood till within the last quarter of a century. It is not only a good breed of itself, but also for crossing purposes. The downs or chalky hills of Sussex, constitute the principal district in which they were originally bred, and from this they have derived their name. They are without horns, with dark grey heads and legs, fine bone, and short thick fleeces of wool. Formerly their points were very irregular, having low foreheads, and light forequarters, their middles pretty well formed in both ribs and loins; their legs or hams being full and compact. The meat is very fine in the grain, of a bright colour and excellent quality, being full of lean as well as fat, and cutting up into handsome joints. They are also very full of tallow, and feed readily.

Among the foremost improvers of Southdowns during the last quarter of a century, must be included Mr. Jonas Webb, of Babraham, Cambridgeshire, who may safely be said to have surpassed all others in this important department of rural economy. The Babraham flock had long enjoyed a world renowned reputation till its dispersion only a year or two ago. The annual ram lettings and sales called together the most distinguished Southdown breeders, not only from the British Islands, but from the continent of Europe, and also that of America. Mr. Webb's sheep were regarded by the most competent judges as the most improved and perfect type of the Southdown breed, having a distinct character of their own, and embodying in the highest degree all those qualities, which

long experience and observation have determined as essential to the perfection of a breed. The reader will find fuller information respecting this much esteemed breed, on the 196th page of this journal.

Annual Sale and Letting of Southdowns.

ON Tuesday afternoon the annual sale of pure Southdown ewes and letting of rams, by Mr. R. H. Ellman, the well-known breeder of Southdown sheep, took place at his farm at Landport, near Lewes, and was attended by a considerable number of the principal agriculturists of the neighbourhood and agents from distant grazing districts. The flock comprised 200 full-mouthed ewes of the pure Southdown breed, 150 wether lambs, and 16 rams for letting. In consequence of the great difficulty which has been experienced during the past unprecedentedly dry season in procuring sufficient pasturage for sheep, the flock were not in such good condition as usual, and failed to produce prices equal to those obtained in former years. Four pens of fine full-mouthed ewes were first put up, two of which found purchasers at £3 per head. There were 18 pens of ten each, the principal purchaser of which was the agent of Lord Studley, to whom eight lots were knocked down, each at £2 per head, and two others at 36s. per head. The wether lambs were put up in seven lots of a score each, and one of ten. Two score were purchased at 25s. per head, five at 24s., and the remaining ten at 21s. In the letting of rams, with the exception of one animal, there was not much competition. This ram—a four-year-old—after a keen competition between Mr. Rigden, of Hove, and Mr. Boys, of Eastbourne, was knocked down to the latter at 15 guineas. The other prices obtained varied from £10 to 11½ guineas. The first or Great Lewes sheep fair, which is the most important fair of the description held in the region of the Southdowns, took place yesterday on the Spittal Farm, in the outskirts of the town. The number of sheep penned exhibited a falling off as compared with some previous occasions, and the animals themselves were by no

means in such good condition as could have been desired by both seller and purchaser. As a consequence, the business done was much smaller than usual.—*London Times*, Sept. 22.

Correspondence.

CORRECTION.—In No. 17, page 260 of this journal, in an article on "Cuba tobacco grown in Canada," the eighth line from the bottom of the page, for "wetting" read "wilting."

BREMEN GESE WANTED.—"A Constant Reader" wishes to know where he can obtain Bremen Geese.

ANS.—The Prize List, published in our present issue, will probably give the desired information. If our correspondent had sent his name and address, parties having these geese to dispose of, might have written him to that effect.

MANURE PITS UNDER STABLES.—"J. W. Beach," of Oxford Mills, proposes to build a cow stable and wishes to know "if a tank or pit under the floor of the stable which would catch the liquid manure, with a convenient place in the floor for letting down the solid, would be disadvantageous to the health and comfort of the animals?"

ANS. We should think it would, unless dry muck, soil, or some other material were used in sufficiently large quantities to absorb the moisture and fix the gases. We should prefer to place such a tank or pit outside the precincts of the stable, and lead the liquid manure into it by a trough, pipe, or drain.

IMPROVED COW-MILKING MACHINE.—"T. A. Q. M.," of Romney, sends a description and diagrams of improvements in the cow-milking machine, figured in our columns some time since. We would suggest that he get up one embodying his improvements, try it, and let us know how it works. Things that look well on paper, sometimes fail to meet expectations when actually put to the test.

STANDARD WORK ON MARKET GARDENING.—"H. C. B.," of Goderich, writes to know the name of a good work on market gardening, and where it can be had.

ANS.—We believe "Buis's American Kitchen Gardener" is an excellent work of the kind. It can be had of J. Bain or J. Fleming & Co., of this city. There are probably other good books of the same class. Our bookselling friends would do well to advertise their wares.

DIGGING AND COMPOSTING SWAMP MUCK.—Enquiries have come to us from several quarters as to the best mode of preparing muck for use as manure. The object seems to be to find out the quickest way of getting muck into a state fit to put on the land. It is well to throw muck out of the swamp sometime before mixing it with manure in the compost heap. By this means it becomes dry and spongy; the condition in which it will absorb the largest quantity of liquid manure. The usual mode of preparing it for application to the soil, is to mix it in alternate layers with manure. In a few months the mixture makes an excellent compost. It is also a good plan to place it where it will get the drainings of the horse and cow stable. The action of frost upon muck is very beneficial, tending to soften and pulverize it, so that it mixes more readily with the soil.

WATER CRESS.—"W. E. Parker," of Waterville, C. E., enquires:—"Can you inform me how to cultivate water cress (*Sisymbrium Nasturtium*) to advantage, and if that delicious and wholesome herb can be grown profitably in Canada?"

ANS.—We have seen water cress growing by the road-side in various places in Canada, and presume that it requires but little if any special culture or attention. There is a large patch of it on the farm of Messrs. T. & S. Hodgskin, near Guelph. No care is taken of it so far as we know. It grows along the margin of a somewhat sluggish creek, and seems to flourish amazingly. Perhaps some of our readers can furnish Mr. Parker with the information he desires.

THE HAMPSHIRE DOWNS AT THE RECENT PROVINCIAL EXHIBITION.—Mr Herbert Spencer, of Brooklyn, informs us that the Hampshire Down sheep we spoke of in our account of the late Provincial Show as having been "much commended by all capable of judging," belonged to him, and not, as we stated, to Mr. George Miller, of Ma-Kham. Mr. Spencer states that he exhibited two South Downs and ten Hampshire Downs, and obtained nine prizes. This was doing remarkably well. Our correspondent further remarks:—"Little breeders should not be overlooked, nor big ones too much puffed"; a sentiment to which we readily subscribe. We have no desire either to "over-look" or "puff" anybody, but rather to render honour to whom honour is justly due.

WARNING TO BEE-KEEPERS.—"A Subscriber" writes as follows:—"On the morning of Wednesday, Oct. 12th, a party of thieves (five in number,) came to the house of Mr. Alexander Lawson, Lot 30, in the 2nd Concession, Township of Adjala, lifted two bee-hives, (one a large patent one, and the other a common hive,) and were making off with them and their contents, when, on the dogs making an unusual noise, Mr. Lawson sprang from his bed, took down his gun, and having discovered that two hives were missing, followed after the dog, who was on the track of the thieves. So prompt was his pursuit that they abandoned the hives. He was so close to them that he could hear them breaking the brush with their feet, but could not see them. On returning, Mr. Lawson found the patent hive tied up in a quilt; he also found a bag which the thieves left behind them in their haste to escape. This is not the only case of bee-hive stealing in this region, many persons having lost hives last fall and at other times. There seems to be a regularly organized party who follow the practice. Mr. Lawson has a pretty strong conjecture who the thieves are who were taking his hives, and thinks himself to be borne out in his conjecture from the quilt he found with the hive."

CIDER THAT WILL KEEP.—A correspondent wishes information "how cider can be made to keep good during the next seven months?"

ANS.—Cider, properly made, will keep good a long time; and we cannot better reply to the above

question than by giving some condensed directions about the entire process,—the substance of an article which recently appeared in an exchange paper.

"1st. Always choose perfectly ripe and sound fruit. 2nd. Pick the apples from the tree by hand. Apples that have been on the ground any length of time, contract an earthy flavor, which will always be found in the cider. 3rd. After sweating, and before being ground, wipe them dry; and, if any are found bruised or rotten, put them in a heap by themselves, from which to make an imperfect cider for vinegar. 4th. As fast as the apples are ground, the pomace should be placed in a previously-prepared open vat, of suitable size, and with a false bottom, strainer, or clean straw about it. Let the pomace remain about one day, then draw off, return the first, and continue to do so until it runs clear. Let the juice percolate or filter for one or more days. The cider thus extracted will compare closely with any clear, rich sirap, and which is only deserving the name of temperance cider, and may be drunk, or used for any purpose, as a choice and superior article. In this way about one-half of the cider will separate; the remainder may then be expressed for the use of the press. 5th. To press out the juice, use a clean strainer cloth inside the curb, with some clean straw intermixed in thin layers, with the pomace, and apply the power moderately. 6th. As the cider runs from the vat or press, place it in a clean, sweet cask or open tub, which should be closely watched; and, as soon as the little bubbles commence to rise at the bung-hole or top, it should be racked off by a spigot or faucet, placed about two inches from the bottom, so that the lees or sediment may be left quietly behind. 7th. The vinous fermentation will begin sooner or later, depending chiefly upon the temperature of the apartment where the cider is kept; in most cases during the first three or four days. If the fermentation begins early and proceeds rapidly, the liquor must be racked or drawn off and put into fresh casks, in one or two days; but if this does not take place at an early period, but proceeds slowly, three or four days may elapse before it is racked. In general, it is necessary to rack the liquor at least twice. If, notwithstanding, the fermentation proceeds briskly, the racking must be repeated, otherwise the vinous fermentation, by proceeding too far, may terminate in acetous fermentation, when vinegar will be the result. In racking off the liquor, it is necessary to keep it free from sediments, and the scum or yeast produced by the fermentation. When the fermentation is completely at an end, fill up the cask with cider in all respects like that contained in it, and bung it up tight, previous to which a tumbler of sweet oil may be poured into the bung-hole, which will exclude the oxygen and prevent the oxydation of the surface of the cider."

The Canada Farmer.

TORONTO, UPPER CANADA, NOV. 1, 1864.

Pine Forest Products.

Tar, pitch, resin, and turpentine have been high in price and hard to get for some time past in consequence of the American war. Formerly commerce was plentifully supplied with these articles from North Carolina and other Southern States. This source of supply failing, much inconvenience has been felt. Spirits of turpentine used to be largely employed by painters in mixing their colours, but a substitute that answers well for all common purposes, has been found in petroleum naphtha, which is abundant and cheap. The deficiency of the other pine products is not so easily supplied, and as the failure of the supply of cotton, usually furnished by the Southern States, has led to the production of that staple elsewhere, so many are asking whether the pine forests of other regions cannot be made available for the products so largely needed in the arts. In this country the demand for them is considerable. The trade returns for the Province of Canada, show that in 1859, there were imported for home consumption, resin to the value of \$15,571; pitch and tar, \$7,670; and turpentine, \$34,518; the total of these three items amounting to \$57,759. In addition, a large quantity of these articles finds its way hither in manufactured varnishes and other forms. There is then a good market for these products at our doors,

besides which, as will be seen by some tables which appear in another column, there is a very large call for them in Great Britain, which Canadians might as well respond to as any body else, provided their production and manufacture are feasible here.

The peculiar species of pines which grow in the Southern States are not found in our Northern latitudes. They are the Long-leaved or Yellow pine, (*Pinus palustris*.) and the Loblolly or Old-field pine, (*Pinus taeda*.) Our common pine, (*Pinus strobus*.) the timber of which is so valuable, has little resin or turpentine in it. The Red pine, (*Pinus resinosa*.) and the Pitch pine, (*Pinus rigida*.) both of which are abundant in some parts of Canada, are resinous woods, but in what degree, we do not know. Gray, an American author, in his manual of Botany, speaks of Pitch pine as being "saturated with resin," and says that the Red pine is usually less resinous than the Pitch pine. The Larch or Tamarack, and the Balsam fir, are also resinous trees. Whether the extraction and manufacture of the products in question from our northern pines be practicable, and can profitably be carried on, is a question we confess our inability to answer. We shall be glad to receive communications on the subject from practical men who may have given some attention to the matter. In the meantime, to satisfy in some degree the curiosity which may be awakened, we give the following brief outline of the way the articles under consideration are produced in the South. It is extracted from the *American Agriculturist* :—

"The trees are 'boxed,' as it is called, i.e., a cavity is made in the trunk near the ground, sufficiently large to hold about three pints, from one to three boxes being made in each tree according to its size. The resinous juice of the tree collects in these boxes, from which it is removed by means of a wooden scoop, and transferred to casks. It is a white semi-fluid, having more or less consistence according to the season, and the length of time it has been exposed to the air. It is known as turpentine and white turpentine. The flow begins in warm spring weather, and continues until checked by the cool weather of autumn. Two hundred and fifty boxes are said to yield a barrel of Turpentine. This natural product consists of a volatile oil and a solid resin. When put into a still and heat is applied, the volatile oil is separated and collected as Spirits of Turpentine, while the solid portion remains in the still—the Resin of trade. Tar is obtained from the trunks and roots of old, and frequently, dead trees, by means of heat. The wood is cut in short pieces, split and stacked up, much as in burning charcoal. The kiln is covered securely with clay so that the combustion shall go on very slowly—the sap of the wood is "tried out" by the heat and runs out from the bottom of the kiln, through a channel provided for the purpose, in the form of Tar. When Tar has its liquid parts evaporated by boiling it down to about one half its bulk, that which is left is Pitch."

The "Harvest-Home" in England.

THE *Farmers' Magazine* for October notes with pleasure a gratifying improvement in the method of celebrating this time-honoured festival in many parts of the old country. Instead of an orgy, like that described in Bloomfield's "Suffolk Horkey," "wherein every line smacks of beer and tobacco," and at which a man "hardly admitted that he had enjoyed himself without he had got drunk, while most probably a fight or two by the roadside," or a long drinking bout at the village inn was the "happy conclusion" usually arrived at:—instead of that sort of thing, a day of religious thanksgiving, social intercourse, and innocent recreation is spent by the farmers and those in their employ. By way of example, the journal above-named furnishes a detailed account of some instances of the "better observance" of this festival the present year. We give the substance

its report of "the great united harvest-home festival for Bushley, Longdon, Queenhill, and Holdfast," which was celebrated on Tuesday, August 30. The day proved auspicious, and at an early hour the villagers were astir, making a lively scene, attired in their holiday clothes. The churches were decorated for the occasion by the ladies of the parish. The ornamentation and service in Bushley church may be taken as representative of all. Small sheaves of wheat and bunches of grapes rested on the communion-table, and were surrounded with a "glory" and the sacred monogram, "I.H.S." An inscription—

"O God of life, from day to day,
Be thou our comfort, guide and stay"—

very beautifully wrought in leaves, was fixed on either side of the table. Over the eastern window were representations of the sun and stars, and around the window, in leaves, the text, "The harvest is the end of the world, and the reapers are the angels." The windows of the church were garlanded with leaves, flowers, and grain, and along the string courses were lines of decoration composed of fern leaves, ears of wheat and barley, blossoms of the scarlet geranium, and corn flowers. The chancel gates were clustered with sheaves of wheat, and festooned with hops, and the pulpit and reading-desk were very chastely ornamented with hop flowers and ears of wheat. The corona were also richly decorated with flowers, evergreens, and grasses.

A full choral service was performed by the choir, an admirable sermon preached by the lord bishop of the diocese, and at the close of public worship, the congregation walked in procession to Pull Court, where the congregations from the churches of the other parishes above-named joined the Bushley people, and at half-past one the united company sat down to dinner in a large marquee. The tent was profusely decorated with flags, evergreens, and flowers. Banners, with such mottoes as "God speed the plough," "God be praised for a bountiful harvest," were suspended from the tent poles. A hymn by the choir, commencing, "Praise the Lord, ye heavens adore him," preceded dinner. The repast over, another appropriate hymn was sung by the whole company,—

"O gracious hand that freely gives
The fruits of earth our toil to bless;
O love by which the sinner lives,
Lift up our tongues thy praise confess!"

Loyal toasts were then proposed, healths drunk, and speeches made by the squires, the bishop, and others. Another harvest hymn having been sung, a sort of "free and easy" ensued. Some strolled about the beautifully-laid-out grounds surrounding the mansion, others resorted to their pipes and social chat, while the sprightlier ones betook themselves to various games. Thus passed a day of much interest, pleasure and profit, darkened by no cause for self-reproach, and marred by no degrading excess. Such an occasion would pleasantly vary the routine of country life, be remembered with agreeable thoughts, and anticipated when the season for it arrived again with eager delight. Old and young, children and grown-up people, rich and poor, would be the better for it physically, socially, morally.

The "Country Gentleman" on the recent Provincial Exhibition.

It is sometimes useful to "see ourselves as others see us," even when we do not get a very flattering view by that means. On the other hand, commendation, when just, is encouraging, especially if it come from a source entitled to respect. The *Country Gentleman* of the 6th ult. contained a highly complimentary account of the late Provincial Exhibition, and as it gives the result of the editor's own observations, the article is especially worthy of notice. We make a few extracts, not doubting that they will be read with interest and pleasure by the farmers of Canada:—

"We had entertained high anticipations as to the character of the Show, and they were not disappointed

in the result. In its extent, in some classes at least, the display has been rarely equalled here, and perhaps never exceeded. Its strong points were the classes of cattle and long-woolled sheep, and, as compared with the exhibition of our State in grains and roots. The show of horses was large, but, with the exception possibly of those for draught, from our limited observation we should scarcely rank it as superior. Implements and machinery were well represented. The attendance on Wednesday, which was a fine day, was very good, but on Thursday, unfortunately, there came up a driving storm, which for several hours rendered the open field almost a sheet of water, and the only tenable place then was the admirable Exhibition building—a structure of large size, accommodating all the in-door departments, such as flowers and fruits, household goods, musical instruments, seeds, etc., and proving of great value in unfavourable weather, as it is an ornament to the grounds and a most commodious receptacle for fragile articles at any time. The season for fruit has not been a good one, and making due allowance on this score, the turn-out was very creditable to the nurserymen and orchardists of the Province.

"SHORT-HORN CATTLE.—In the display of Short-Horns, of course the great feature was the last importation of Hon David Christie, Brantford, from the herd of Mr. Douglass, Athelstaneford. The stalls of the three cows, "The Queen" and "The Pride of Athelstane," and "Placida," were constantly crowded, and when they came out before the judges there was a hum of admiration around the ring of spectators. "Aw, did ye ever see the like o' that, noo?" and "What do you think of old England—we can't get our stock up like that here," were samples of the remarks of a pair of burly, well-to-do farmers at our side, as they were led into view; and no wonder, for the getting up of animals for show is something never attempted on this side the water on the scale common among English breeders, and even at home Mr. Douglass has few rivals in this respect. Beyond their very high condition, however, they must be an addition of great value to the stock of this continent; and in one respect, particularly, they were in contrast to some of the Short-Horns often exhibited,—carrying their broad, deep, compact and symmetrical frames within a short distance of the ground, and, so long as the breed was not instituted for racing purposes, one never cares to see too high a sky-line between the legs. As we hope to give hereafter a portrait of the "Queen of Athelstane," which led off in her class, with the "Pride" as second, we defer farther remark for the present. "Placida" came into the next class (three-year-olds), and it would require a closer examination than ours to determine whether she might not challenge the laurels of the "Queen" herself with fair prospect of success.

"SHEEP.—It must be candidly owned that in no part of the Exhibition could so unfavourable comparisons be drawn as regards our own at Rochester, the previous week, as in that of mutton-producing sheep. What South Downs were exhibited at our State Fair certainly need shrink from no challenge; but in extent there was nothing like the turn-out at Hamilton, and of Leicesters, Cotswolds, etc., we hardly had proof that such breeds were among us. It is true that our show of fine-woolled sheep was much the better of the two, but it scarcely speaks well for the condition of our agriculture or the enterprise of our farmers, that mutton sheep are neglected here as they are. The difference in value, between coarse or "middle" and fine wool, was never proportionately as small as at the present time, and allowing to the Merinoes all the superiority they undoubtedly possess for certain localities, we cannot but think many parts of our State quite as well suited to the long and middle-woolled breeds as Canada West. It seemed really a disgrace to be obliged to confess, in the presence of four or five hundred head of long-woolled sheep alone at Hamilton, that we might have counted on our fingers all that the State of New

York could muster to send to Rochester; and with the great encouragement that now exists for breeding them and the Downs, we sincerely trust that our farmers may take a lesson from their Canada brethren as regards both, and that our State Exhibitions may hereafter afford evidence of a general awakening on what must be considered a most important branch of good farming in any country."

SCOPE OF COMPETITION.—On this point our respected contemporary is somewhat in error. He says: "We may mention, in passing, that our Canada friends do not yet adopt the system which our State Society has now been following for several years, of opening competition to all exhibitors, wherever their residence."

The fact is, that our Provincial Exhibitions are open to all comers, except in the departments of fruit, arts and manufactures. The two latter embrace chiefly domestic and fine arts and manufactures. They do not include agricultural implements, tools, and machinery. In the exclusive departments, foreign articles are admitted for exhibition only, and certificates are awarded to anything of special merit. Our contemporary will please make the necessary correction relative to this matter, in order that our neighbours on the other side of the lines may not be deterred from competing at future Exhibitions.

Township versus County Fairs.

Our own observation, and the opinions of intelligent farmers in various parts of the country, incline us to urge very strongly the wisdom of making the County Show the grand local exhibition of the season, and doing away with Township Shows. As it is, we have too many exhibitions. It is not possible for them all to be effective. They take too much time, and involve a large amount of trouble and expense. In fact, they do not pay. The premiums are necessarily small, and the Shows are so limited that admission fees are grudged, and can hardly be exacted. It would, in our view, be much better every way to concentrate effort on the County Show and abolish the smaller ones. A more extensive prize-list could then be issued, with a more liberal scale of premiums, and the Show would be worth going and paying to see. Another important matter is the desirableness of good buildings and commodious grounds. It is out of the question to expect that these can be provided in every township. There is, however, nothing unreasonable in the expectation that each county should be well provided in these respects. Generally speaking, the Township Societies lessen both the interest and resources of the County Societies. The best Shows the present season have been where eligible grounds and convenient buildings have been found. These and other considerations indicate the true line of policy to be adopted; and we hope that, during the coming winter, this subject will be thoroughly discussed, so that when arrangements are made for next year's Exhibitions, the small fry will be swept away, and preparations gone into on a grand scale for a respectable, well-sustained Show, in every county throughout our land.

SAMPLE OF SORGHUM.—Mr. D. C. Yale has brought to our office a Sorghum plant grown in Toronto the present year. It was planted June 16, and measures about nine feet in height. Judging by sorghum plantations we saw in Illinois a few weeks ago, the specimen appears to be a good one, and establishes the feasibility of growing this plant in Canada. The next thing to be desired is that some one should try the experiment of converting the juice into syrup and sugar. We have no doubt a syrup useful and valuable for "family sweetening," as the Americans phrase it, can be made from Canada-grown sorghum. Whether it will granulate into sugar is another question and one we should like to have decided.

Resin and Turpentine Imported into Britain.

The following letter and tables have been handed to us for publication by Mr. Hugh C. Thomson, Secretary of the Board of Agriculture. They refer to articles which have become scarce and dear in consequence of the American war. Whether their manufacture and export can be profitably carried on in this country, is a question well worthy of being considered. Some remarks on this subject will be found in another column.

BUREAU OF AGRICULTURE AND STATISTICS,
PATENT OFFICE, Quebec, 17th Oct., 1864.

Sir,—I have the honor to transmit herewith copy of a tabular statement received from the Imperial authorities, through His Excellency the Governor-General, on the relative quantity and price of Resin and Turpentine, as shown by the Trade Returns for the years 1859, 1860, 1861, 1862, and 1863

His Excellency the Governor-General is desirous that such information should be sent to proper parties, in view of their diffusion. The object of the Imperial authorities is evidently to foster the production in the colonies and forwarding to the Mother Country of the two articles mentioned. You will, therefore, be kind enough to use whatever means are within your reach to comply with the above-explained instructions.

I am, Sir, your obedient servant,
J. C. TACHE,
Deputy Minister of Agriculture.

To the Secretary of the Board of Agriculture, U. C.,
Toronto, C. W.

QUANTITY AND COMPUTED REAL VALUE OF RESIN IMPORTED INTO THE UNITED KINGDOM (1859-1863.)

COUNTRY.	QUANTITIES.					COMPUTED REAL VALUE.				
	1859.	1860.	1861.	1862.	1863.	1859.	1860.	1861.	1862.	1863.
France	Cwt. 4,258	Cwt. 60,790	Cwt. 265,178	Cwt. 335,953	Cwt. 355,953	£ 1,676	£ 58,361	£ 263,223	£ 496,477	£ 496,477
United States..	74 10L	174 6L	104 2L	104 2L	274 6L	339,064	268,126	41,272	3,506	3,506
Hamburg	74 9L	601,546	457,685	47,258	2,389	2,721	28,039	6,844	6,147	6,147
Turkey	6,215	32,403	178 6L	188 6L	222 10 2/3 6L	.....	.....	.....	.....	.....
Greece	88 4L	114 6L	.....	.....	284 6L	.....	.....	.....	.....	.....
Bremen .....	.....	.....	.....	.....	274 10L	.....	.....	.....	.....	.....
Other parts.....	10	11,159	26,594	7,759	274 7L	.....	23,610	6,338	.....	.....
Total.....	74 6L	612,705	14,807	13,217	3,397	313,468	391,331	330,805	538,015	538,015

QUANTITY AND COMPUTED REAL VALUE OF TURPENTINE-IMPORTED INTO THE UNITED KINGDOM (1859-1863.)

QUANTITY AND COMPUTED REAL VALUE OF RESIN AND TURPENTINE IMPORTED INTO THE UNITED KINGDOM (1859-1863.)

COUNTRY.	QUANTITIES.					COMPUTED REAL VALUE.				
	1859.	1860.	1861.	1862.	1863.	1859.	1860.	1861.	1862.	1863.
France	Cwt. 226,083	Cwt. 185,145	Cwt. 3,745	Cwt. 8,726	Cwt. 11,146	£ 226,083	£ 185,145	£ 3,745	£ 8,726	£ 11,146
U. States.....	95 10L	98 3L	99 277	233 30L	233 7L	.....	.....	.....	.....	.....
Hamburg .....	.....	.....	118 3L	124 11L	.....	.....	.....	.....	.....	.....
Bremen.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greece .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other parts...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	256,663	185,474	112,312	12,722	27,313	256,663	185,474	112,312	12,722	27,313

Toronto Gardeners' Improvement Society.

The regular monthly meeting of this Society took place in the Agricultural Hall, on Monday evening, 19th September, 1864.

Mr. Turner, gardener to Judge Harrison, laid on the table for inspection a superb collection of dahlias, embracing several new varieties; also, a fine collection of pompon, or bouquet dahlias. The pompon dahlia is deserving of a greater share of patronage than it receives at the present time—blooming at a season when flowers suitable for bouquets are scarce, of a perfect form, and sporting every color of the rainbow.

A large collection of roses from the nursery of Mr. J. Gray, jun., was submitted for inspection, among which were many worthy of notice. Some choice roses were also shown by Mr. Turner.

A considerable portion of the evening having been spent in inspecting the above collections and in discussing their merits, the chairman called the meeting to order, and Mr. George Vair read a paper on the cultivation of the Chrysanthemum, when quite a debate took place on the propriety of hybridizing the summer-flowering variety with those flowering in the autumn. It would certainly be a great acquisition to our bedding plants to have such flowers as the Chrysanthemum blooming in our borders during the summer months.

The subject of the cultivation of the Calceolaria was appointed to be taken up at the next monthly meeting.

CHOICE BULBS FOR WINTER FLOWERING.—We have received a few specimens of Dutch bulbous roots from Mr. Robert M. Stark, Seedsman and Florist, of Edinburgh, who is in this country on a visit. The specimens embrace Hyacinths, Tulips, Crocuses, Narcissuses, &c. The bulbs are in excellent condition, and from the names we judge they are choice sorts. Among the tulips is the *Tournefort*, of which an engraving appeared in No. 11, p. 171, of this journal. Mr. Stark had a sale of flowering roots the other day at Wakefield's auction-mart. The demand was not brisk, and prices ruled low. He has a number of his best bulbs still on hand, and may be addressed by parties wishing a supply at Thornhill.

INTERNATIONAL EXHIBITION.—The *Rural New Yorker* and *Country Gentleman* both favour the idea recently thrown out by the *Globe*, viz., that the two Canadas should unite in getting up a Grand Provincial Exhibition, offering \$20,000 in premiums, and inviting the State of New York to enter the lists in friendly competition. The journals named think such a plan would work well, provided a convenient location were chosen.

CANT'S PATENT ROOT CUTTER.—We would invite attention to an advertisement, which appears in our present issue, relative to this useful machine, which is for sale by Mr. James B. Ryan, of this city. It has taken two first prizes at Provincial Exhibitions, and, we understand, is well spoken of by those who have used it. It cuts two sizes, (for sheep and cattle) and costs \$15.

YORK TOWNSHIP AGRICULTURAL SOCIETY'S PLOUGHING MATCH.—We are requested to state that this match will take place on Thursday, the 10th inst, when the handsome sum of \$370 will be distributed in prizes. Our correspondent does not inform us where the match takes place, but adds to the bare intimation given above: "For further particulars see large bills."

AUCTION SALES OF VALUABLE STOCK.—We would direct attention to some sales of desirable, thoroughbred stock, about to take place in the State of New York, under the management of Mr. J. R. Page, of Sennett, N. Y. See advertisement in another column.

SOUTH SIMCOE AGRICULTURAL SOCIETY'S FALL SHOW.—The seventh annual exhibition of the Agricultural Society of the South Riding of Simcoe, took place at Bradford on the 13th inst, and was well attended. — *Barrie Examiner*.

Poultry Ward.

Good Yield of Eggs.

To the Editor of THE CANADA FARMER:

SIR,—I wish to give a statement of my success in poultry keeping, for the last six months, compared with the same last year.

12 hens.	1863	
April, 201, May, 204, June, 136, July, 124, Aug. 102, Sept., 97		
13 hens.	1864.	11 hens.
April, 186, May, 226, June, 192, July, 184, Aug., 189, Sept., 141		

This makes 264 more than last year, in the six months. You will see that I had one hen more than last year for four months, and one less for the last two months, which makes very little difference, as the two were one gold and one silver pheasant which I gave away as not profitable to keep. The reason why I got so many over last year was simply by keeping the hens from sitting, which I did by making fast around the hen's tail a strip of calico about two feet long by 1½ inches wide, which made the hen run about all day; and, when night came she had no notion of sitting. The sport was worth all the trouble. I would advise all to try the experiment. I have got one of the prettiest Brahma cocks I ever saw, and a small stock of Brahma hens with heavy bodies, short legs, small head, and little or no comb, color light grey, and two years old. I have also got one male and two females, of the black Spanish breed, to try the difference.

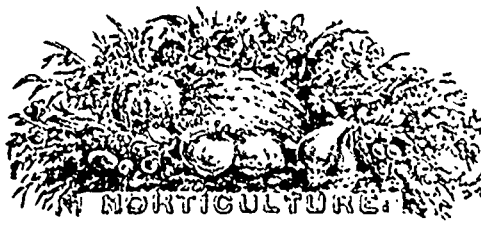
JOHN VEITCH.

Brockville, Oct. 21, 1864.

NOTE BY DR. C. F.—A communication from the above correspondent appeared in No. 7 of THE CANADA FARMER, p. 109. Last year his hens averaged 123 eggs each, for the six best months. The present year they averaged 145. This is certainly a good exhibit and speaks well for the Brahmas. We shall be glad to hear by-and-by what Mr. Veitch thinks of the Spanish as compared with his favourites.

AN INEBRIATED GOOSE.—We must conclude our notabilia with a brief history of "Old Tom," a London goose of "credit and renown." Tom was hatched at Ostend, and having shown extraordinary sagacity at an early age, was trained by M. Blaney, his owner, to act as a decoy goose, and to lead his more simple brethren to the wharf, whence they were shipped for the London market. We are sorry to say then that Tom was a deceitful bird, but he at length got his deserts, for, by some mistake, he was one day shipped off himself, and consigned, with the rest of the flock to the care of Mr. Grover, of Leadenhall-market. Tom no sooner appeared in the market than his extraordinary character became known, and his tricks and comicalities made him a general favourite. He would answer to his name in the goosish dialect, and by a brisk clapping of his wings, and he would follow his friends like a pet dog. On his original master coming to London sometime afterwards, Tom recognized him and M. Blaney was so much delighted to see his old servant that he offered, if Mr. Grover would keep him, to pay all his expenses. An honest biographer should never conceal the faults of his hero, lest he should unwisely set up an example of unattainable perfection; we are, therefore, constrained to say that Tom kept bad company, and fell into tipping habits. He was accustomed to strut with great dignity into the Rose and Crown every morning, and ask, like any other customer, for his dram of mountain dew. By the time he had gone the round of the inns in the neighborhood he would occasionally show himself the worse for his potations, and it was necessary to take him into custody on the police charge of being "drunk and disorderly." This way of life injured Tom's health, and at length he was found dead in his nest, having lived thirty-seven years. His body having been duly embalmed and placed in a deal coffin, lay in state on his master's stall for some days, two favourite geese dressed in crape doing duty as waiters at the door. *Sic transit gloria mundi.*—*Cly Press.*

A GOOD EXAMPLE FOR HENS.—Jas. F. Brainer, of Holliston, has a Brahma pullet who began to lay Nov. 21, 1863. She was then six months old. For her first litter she laid 23 eggs, the second litter 21 eggs, and the third litter 30 eggs, and still laying. The weight of her eggs is 9 pounds 11 ounces. I thought these facts might interest some of the readers of your valuable paper. The weight of this pullet is 8 pounds.—*CACKLE, in N. E. Farmer.*



The Cultivation of Spinach.

This vegetable is extensively grown in England, where they aim to have a supply the whole year round. Even there it is not an easy matter always to have sufficient for winter use, and here the most of us will be obliged to content ourselves with what we can grow while the frost is out of the ground.

For early use the Round-leaved variety is the best. This may be sown as early as the ground can be worked if possible in some sheltered spot where the sun can shine upon the bed, and where the chilly winds cannot strike it. The soil should be deeply worked richly manured, and well drained, so as to be light and friable. After the plants make their appearance they should be kept free from all weeds, and the ground frequently stirred with the hoe. The rows may stand about sixteen inches apart, and the plants should be thinned out to six inches between them.

For summer use the New Zealand spinach is almost indispensable. This variety seems to grow the more luxuriantly in hot and dry weather, yielding an abundant supply in June and September and throughout the fall. It may be sown at any time after the middle of May, and treated much in the same way as the Round-leaved variety.

The prickly variety is the most hardy and best adapted to winter use. It will need to be sown sufficiently early to become well established before cold weather sets in, and then the plants will need to be covered with straw to protect them from severe frosts. In gathering for use the larger leaves should be taken singly, breaking them carefully off by the foot-stalk.

Cheap and Fanciful Methods of In-door Flower Culture.

It may be flowered in-doors by means of several simple contrivances. The following are recommended by Messrs. Barr and Sagden, eminent English florists.

1. Select a moderate-sized and nicely-shaped beet root, cut the lower portion off within six inches of the crown; scoop out the centre, leaving the crown unimpaired; and by means of metallic wire or cord, suspend the root in front of the sitting room window, with the crown-end downwards, and fill the hollow part with water, in which place a hyacinth, with its base just touching the water. The moisture stimulates growth, not only in the hyacinth, but in the beet root; and as the leaves of the latter always grow upward, they will curve round and entirely envelope the root, and give the idea of a hyacinth growing out of a leafy basin.

2. Take a piece of cork, sufficiently large to float a minia are hyacinth, and cut a hole in the centre, so that the bulb may rest in it with its base touching the water; then float the cork, etc., in a tank, aquarium, or basin of water. The bulb will throw its roots down into the water; and if a support for the flower be necessary, a wire inserted in the cork will be found sufficient. Treated in this interesting and novel manner, the hyacinth flowers beautifully. Crocuses and tulips may be similarly treated.

3. Of a few carrots take about half an inch of the crown portions, scoop out the core, and in the centre of the crown make a hole sufficiently large for the shoot of a plant to pass through, then in the cavity made in the carrot, place a crocus or a tulip, and in this position plant them in sand, moss, earth, or water. When growth commences, the beautiful green of the carrot will grow simultaneously with the bulbs, and form a pretty shield for the flowers.

A cheap crocus-holder is suggested in the *Collage Gardener and Journal of Horticulture*. A correspond-

ent of that paper makes a crocus-holder by hollowing out a turnip, leaving about half an inch in thickness all round, and taking care not to injure the base leaves. It is filled with soil, the crocus root is planted, and the turnip suspended by wires. The moist soil starts the leaves of the turnip, which turn upwards, and grow in a short time so as to completely hide the root. It is simple, cheap, and very pretty.

Culture of Cabbage.

ELEVEN thousand heads of cabbage may be raised from an acre. This, sold at five cents, will bring five hundred dollars. It is said by those who have raised cabbage extensively, that it is one of the best crops to feed stock—young stock and cows particular. There is no doubt of it. Cows are fond of it, and give largely of milk. Some object to its acrid taste and pungent flavour, as this is perceptible in the milk. But the objection is obviated in the case of young stock, and cows out of milk.

To raise cabbage, the richest of ground is necessary. We have known cabbage raised for a dozen years in succession on the same spot, and each crop a good one, varying, of course, with the season. But the soil was of the best kind, so that but little manure was needed. But the soil if still better, would have raised better cabbage. Planted in a hog-yard, or where manure has long lain, gives the best of crops—better than any we have ever seen. It is almost impossible to get your ground too rich for cabbage; and it wants depth, as its long roots penetrate.

Cabbage, like berries, and all water-loving plants, dries the soil rapidly, and hence gives it a harsh, sterile appearance, unless very rich and mellow. Irrigation cannot be too largely indulged in with cabbage. A thorough cultivation of the soil, deep tillage, will aid in this respect.—*Valley Farmer.*

How the Chinese Make Dwarf Trees.

We have all known from childhood how the Chinese cram their women's feet, and so manage to make them "keepers at home;" but how they contrive to grow miniature pines and oaks in flower-pots for half a century has always been much of a secret. They aim first and last at the seat of vigorous growth, endeavouring to weaken it as far as may consist with the preservation of life. They begin at the beginning. Taking a young plant—say a seedling or cutting of a cedar—when only two inches high, they cut off its tap-root as soon as it has other rootlets enough to live upon, and replant it in a shallow earthen pot or pan. The end of the tap-root is generally made to rest on the bottom of the pan, or on a flat stone within it. Alluvial clay is then put into the pot, much of it in bits the size of beans, and just enough in kind and quantity to furnish a scanty nourishment to the plant. Water enough is given to keep it in growth, but not enough to excite a vigorous habit. So, likewise, in the application of light and heat.

As the Chinese pride themselves on the shape of their miniature trees, they use strings, wires and pegs, and various other mechanical contrivances to promote symmetry of habit, or to fashion their pets into odd fancy figures. Thus, by the use of very shallow pots, the growth of the tap-roots is out of the question; by the use of poor soil and little of it, and little water, any strong growth is prevented. Then, too, the top and side-roots being within easy reach of the gardener, are shortened by his pruning knife or seared with his hot iron. So the little tree, finding itself headed on every side, gives up the idea of strong growth, asking only for life, and just growth enough to live and look well. Accordingly, each new set of leaves becomes more and more stunted, the buds and rootlets are diminished in proportion, and at length a balance is established between every part of the tree, making it a dwarf in all respects. In some kinds of trees this end is reached in three or four years; in others ten or fifteen years are necessary. Such is fancy horticulture among the Celestials.—*The Technologist.*

LARGE MUSHROOM.—It would seem that the dry season, followed by the immense amount of rain which has recently fallen, has been singularly favorable to the growth of mushrooms in this part of Devonshire, where they have been unusually abundant, and in some cases have reached an enormous size. One, grown in a field on Prescott Farm, in the occupation of Mr. Talley, weighs no less than one pound, and measures ten inches in diameter. This extraordinary production may be seen at our office.—*Tiverton Gazette.*

The Adirondac Grape.

We have been so much pleased with what we have seen of this grape, that we have had an engraving prepared by our artist, to show the general appearance and size of berry and bunch. We are pleased, we say, not because it is any larger than many grapes now in cultivation, nor that we think it any better than the Delaware, or the Rebecca, or Allen's Hybrid, but because it ripens so early, that it can be grown and perfectly ripened anywhere that the Hartford Prolific can ripen, and because it is so much superior to the Hartford Prolific, that we shall not have much further use for that variety if the Adirondac fulfills our expectations.

This grape was found growing in the garden of J. G. Witherbee, Esq., at Port Henry, Essex Co., N.Y. in Lat. 41°. In leaf and wood it very closely resembles the Isabella, but the berries are rounder and lighter in colour. The quality of the fruit is "very good," and the pulp is very tender, separating freely from the seeds. The berries do not drop from the cluster like the Hartford Prolific, but remain firmly attached to the stem.

When the Adirondac was first exhibited in Montreal, on the 18th and 19th September, 1861, the Montreal Agricultural and Horticultural Society awarded to Mr. Bailey a Silver Medal, as promising to be the best out-door variety, suitable for ripening in Northern Latitudes. In the October number of the Horticulturist, just at hand, is a letter from H. S. Sheldon, of Middlebury, Vermont, in which he says, that he has fruited the Adirondac in latitude 41°, that his vine was planted in May, 1861, and that this year it yielded forty bunches of fruit. It ripened *two weeks earlier* than the Delaware, and *four weeks earlier* than Isabella, Diana, Rebecca, &c.

We are not aware that the Adirondac has yet been fruited in Canada. From our own experience with the vine, we are disposed to believe that it is not any more hardy than the Isabella, and consequently;

that in sections where that variety suffers from the winters, this will be found to need protection.—We are informed that the original vine is carefully protected every Autumn. But although it may not be any more hardy than the Isabella, yet that variety is grown very successfully at Owen Sound, and we are encouraged to hope that this new variety will prove of inestimable value to the Canadian grape growers, and grape consumers. It at least deserves a fair trial.

Dwarf Peas.

We have been very much pleased with the Dwarf Peas this season. We planted the Tom Thumb, Bishop's Dwarf, and Bi-hoy's Long Pod, and found them to be prolific, and fine, well-flavoured peas. They grow only from a foot to a foot and a-half high, there is no necessity of providing them with brush or rods to climb upon which is an item of labour and

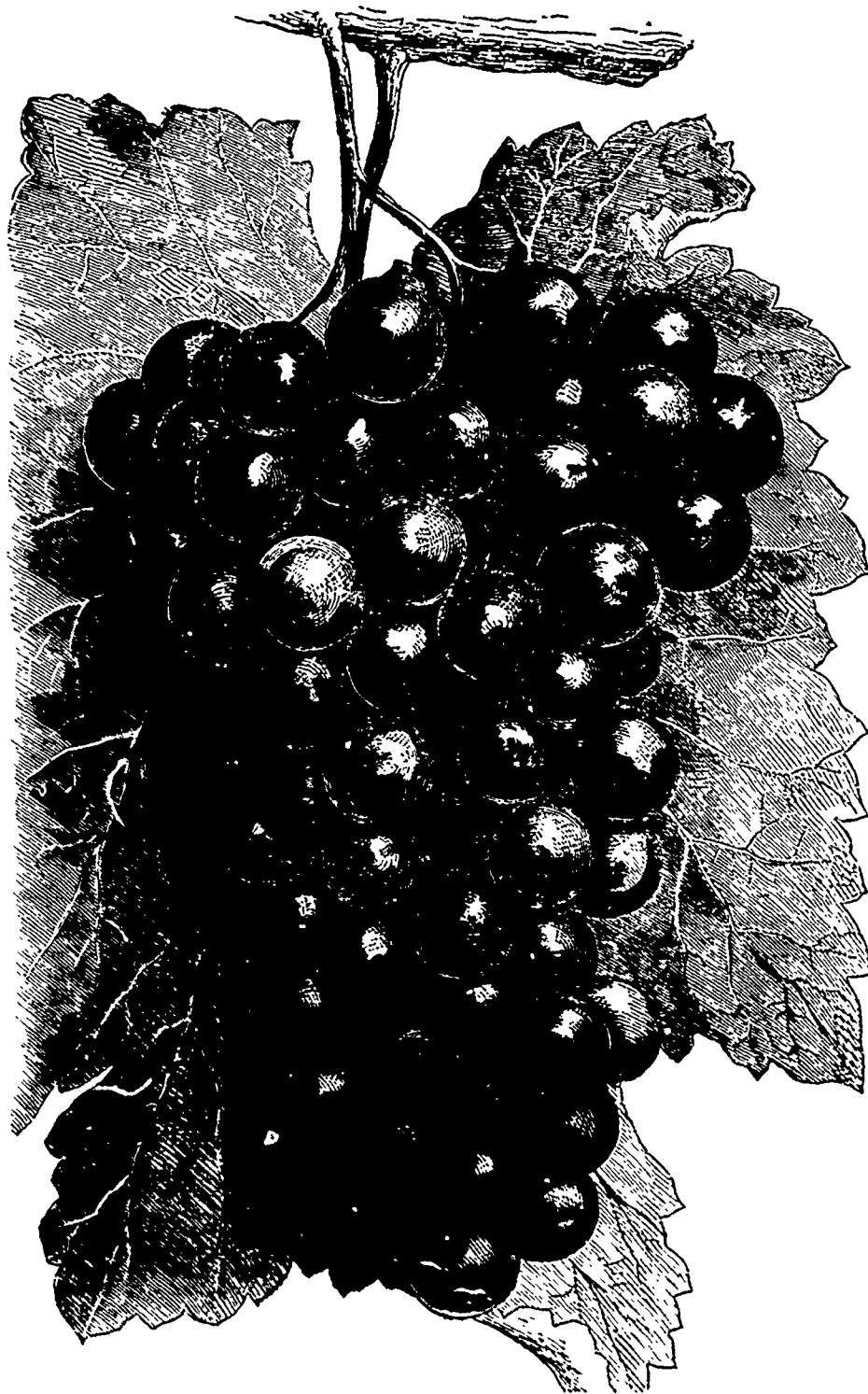
"To Labour and to Wait."

It is hard to wait. We can labour, but we know not how to wait for the fruit. If a proposed enterprise be one requiring considerable lapse of time before the investment can yield returns, it is usually passed by, because it is too long to wait. Yet the ability to wait is a talent of no mean order, and for want of it men often fail of great results.

We have just been reading an account of Mr. Hoyle's perseverance in raising that great Pelargonium, the "Diadem." It is admitted to have been the "crowning beauty of the season of 1863," and is no doubt, to-day, the chief among chieftains in this class of flowers. And this great success was not the result of a chance sowing. He had learned not only to labour, to cross and select, and cross again, but to wait. This "crowning beauty" was not achieved until he had laboured in the selection and raising of seedling Pelargoniums for eighteen years. Yes, for eighteen years he waited, and then this flower for which he had been working and waiting, a flower of "consummate perfection," crowned these long years of expectation. Had he given up discouraged at the end of seventeen years, he would not have achieved the great result which he obtained at last. Fellow toilers, let us think of Hoyle and take courage. Let us learn to wait. Our operations are not many of them such as to require eighteen years of waiting. We underdrain our gardens and the very next year they begin to repay the outlay. We plant vines and trees and long before half eighteen years of waiting have gone by, we reap an ample return. We could name a Canadian who planted an acre with vines of the Concord grape. A part have now been planted four years, the remainder three years. Were those vines all now four years old, he assures us that his crop this season would be ten thousand pounds of Concord grapes. He has sold his crop for one hundred dollars per ton. An acre of Concord

grape vines, according to his statement, when planted four years, will yield a crop that will sell for five hundred dollars. This is only one instance going to show that it is profitable to wait. The cultivation of fruit of all kinds adapted to the climate of Canada, opens a most remunerative field of labour to him who can not only labour, but who can also wait.

There is need, throughout a considerable portion of Canada, that the tillers of the soil turn their atten-



trouble saved. The Tom Thumb is the earliest, and brings its crop to maturity at one time, so that it is necessary to sow it at intervals, in order to keep up a supply, or else to sow some of those which mature later. They should be sown in drills about two feet apart as soon as the ground can be worked in the spring.*

* Tom Moore compared love to a potato, "because it shoots from the eyes," "or, rather," exclaimed Byron, "because it becomes less by paring."

tion to some other branch of agriculture than the mere raising of wheat. Canadian wheat at one time commanded the highest price in the markets of trade. But it is not so now, the sceptre has fallen from our grasp. We must turn our attention to a more general and better studied system of agriculture, one that embraces in its scope some things that farmers had thought quite unworthy their consideration. For those who will study these things there is a rich reward in store. The science of horticulture is one of great promise to the Canadian farmer, but it is one that in the practice requires much patience. He must learn not only to labour but to wait, and he will find in the end that who labour is wisely expended it will pay to wait.

Agricultural Intelligence.

Great Sale of Stock at Moroton Lodge, Guelph.

The sale of imported and pure bred stock, recently advertised in our columns as about to take place on the farm of Mr. F. W. Stone, near Guelph, came off on the 12th ult. There was a large attendance of farmers and breeders, including some from distant parts of the Province, and from the United States. The prices ruled low as a general thing, nevertheless the sale was on the whole more successful than previous ones. For the finer animals, the bidding was quite spirited.

We copy from the *Guelph Herald*, the following list of the sales effected.

DURHAM COWS AND MILKERS.—Isabella, calved July 10th 1878, Thos. McCrea, \$67. Verhona, calved January 3rd, 1860, A. Hogge, \$102. (This cow won the two first prizes in her class at the Provincial Exhibitions in 1862 and 1863.) Cambridge 3rd, calved Jan 20, 1861, A. Hogge, \$57. Sanspareil 7th, calved Jan 27, 1861, Thos. McCrea, \$108. Sanspareil 8th, calved Jan 6th, 1861, Thomas Carter, \$116. Marchioness, 3rd, calved April 2nd, 1861, Mr. Shaw, of Doon, \$58. Sanspareil 9th, calved Oct. 11th, 1862, Mr. Carpenter, \$15. Isabella 9th, calved Nov. 22nd, 1862, Mr. Carpenter, \$71. Sanspareil 11th, calved May 9th, 1863, Mr. Carpenter, \$73. Marchioness of Gloster 3rd, calved June, 1863, Mr. Carpenter, \$93.

DURHAM BULLS.—Prince of Wales, calved Dec. 1st, 1859, Thomas McCrea, \$74. Royal Turk, calved Dec 12th, 1860, Chas. Willoughby, \$75. Royal Dane, calved Sept. 28th, 1863, Geo. Atkinson, \$12. Duke of Clarence, calved Nov. 21th, 1863, Robt. Matthews, \$81. Crown Prince, calved Jan. 27th, 1864, Mr. Carpenter, \$112. Prince Imperial, calved April 10th, 1864, Mr. Snell, Chinguacousy, \$85. Duke of Windsor, calved April 29th, 1864, Mr. Cowan, Galt, \$72. The Yeoman, calved June 5th, 1864, Thos. Arkell, \$61.

HERMION BULLS.—Guelph Baron, calved June 12th, 1863, Henry Haines, \$71. Prince, calved March 18th, 1864, Mr. Clark, Onsego County, N. Y., \$95. Captain, calved July 13th, 1864, Thos. Ashton, Ohio, \$42.

COTSWOLD SHEEP.—One shear ram, David Halton Nelson, \$20; one do. Wm Hood, Guelph, \$26; one do. Arthur Hogge, \$32; one 3-shear, Mr. Shaw, Dover East, \$58; one 4-shear imported ram, John Snell, \$52; one 2-shear ram, J. W. Armstrong, Eramosa \$39; one do. Thos. Arkell, \$40; one do. A. Jeffrey Vaughan, \$36; one do. Thos. Carter \$32; one do. John White, M. P. P., Milton, \$29; one do. Mr. Gardner, Chinguacousy, \$42; one do. Wm McGrath Springfield, Toronto township, \$28; one shear ram Mr. Cadenhead, Fergus, \$30; one do. Hon. Mr. Christie, \$40; one do. Mr. Ashton, Ohio, \$52; one do. Mr. Nicholson Haysville, \$28; one do. John White, \$17; one do. Walter Fulton, Guelph, \$36; one do. A. Anderson, Stratford, \$37; one do. R. S. Charles, York State, \$11; one do. Col. Mitchell, Norval, \$39; one do. R. Reynolds, North Dumfries, \$33; one do. John White, \$35; one do. Mr. Grifford, Cobourg, \$45; one do. Archibald McMillan, Erin, \$12; one ram lamb, Mr. Ashton, \$30; one do. do. \$32; one do. J. T. Nottle, Hamilton, \$30; one do. J. Gilmour, West Flamboro, \$23; one pair Cotswold ewes, J. Armstrong, Yarmouth, \$19; one do. J. Armstrong \$33; one do. Peter Gow, Guelph, \$24; one do. Mr. Weld, Delaware, \$30; one do. Mr. McGrath, \$36; one Cotswold ewe, J. Armstrong, Yarmouth \$12.

SOUTHDOWN.—One 2-shear ram, J. S. Armstrong Eramosa \$22; one do. S. Toms, Ohio \$23; one do. P. Stewart, Puslinch \$17; one do. S. Toms, \$12; one do. S. Toms, \$51; one ram lamb, Mr. Telfer, Paris, \$10. One Leicester two-shear ram was sold to Mr. McTavish, Beckwith, for \$20, and one do. for \$30. The other Southdowns were not put up.

The Weather and Crops.

"I." writes from Hay, Co. Huron, Oct. 21, 1864:—
"The magnificent weather of September ended with the month. October was ushered in with storm and rain, and so far has continued to be very wet and disagreeable. On the 8th we had a fore-taste of winter, in the shape of sleet and hail, and on the morning of the 9th, the earth was covered with a mantle of fleecy snow. Two or three pretty hard nights frost, make up my notes of the weather.

To describe the crops, now, is a comparatively easy task. Where not inundated with water, the fall wheat is doing well enough. The potatoes are being fast gathered up, and transferred to pit and cellar—they are a good crop, and few complaints of disease are heard. Turnips are still growing, but their time is too short, I fear to admit of their turning out much this season. We have nearly all got through threshing wheat and oats. I see no reason to doubt the correctness of the figures which I gave you in my last—spring wheat will not average over 14 bushels to the acre.

Fall ploughing is progressing very slowly; so much wet making it very nasty for man and beast. I have heard of a doctor who was travelling in quest of a suitable locality to commence practice. He alighted on a certain place where there was any amount of rank vegetation, 'this will do' says he, there will be plenty of fever here.' If a tilemaker, in similar circumstances, was to come across this part of Canada, he would see sufficient to satisfy him that he was needed here, and I think would commence his practice. The scant woods, wet fields, and muddy roads of the present, make rather a gloomy season for the farmer, but cheer up! the tinkling of the merry sleigh bell will soon be heard in the land."

"J. F. C." writes from L'Original, under date of Oct. 14, 1864, in reference to the weather, crop prospects, &c., in the Ottawa valley:—

"It has rained almost every day for two or three weeks past. The amount of rain in the aggregate may not be remarkable, yet its almost uninterrupted continuance is worthy of notice. It came down in the shape of snow on the 8th and 10th, which, of course, disappeared almost as quick as does the rain. The dryness of the soil, caused by the previous drouth, was remarkable. In digging a few days since, a close soil beneath a young Northern Spy apple tree, some portions were found to be as dry as powder. By the way, we have a tree of this valuable variety of apples, which fruited the season of planting, and has done so ever since. This speaks well of the manner they pack trees for transportation, at Rochester. In fact, this tree had blossomed in the box, and looked as fresh and green as though it was still luxuriating in the famed nurseries of its native land. I mention this fact, as it is the usual opinion that the Northern Spy is always late and tardy in bearing.

"This is a very bad season for saving corn-stalks. Their value for feeding purposes will be greatly deteriorated. This, together with the shortness of hay and straw, will probably make all kinds of fodder scarce and dear during the coming winter. I see large quantities of buckwheat are still out, in this vicinity. This grain is getting to be quite a staple in this region. Most of the farmers hereabouts are giving up wheat-growing. They say it grows all to straw; and they cannot get a remunerative crop of grain. They should remember that, if they return nothing but straw to the soil, they must not expect to reap anything else. Too much straw is worked up into manure, in proportion to the grain-producing elements. This is the chief fault of the agriculture of this country. Not enough attention is given by our farmers to clover and the leguminous plants, and to such fertilizers as plaster, lime, and ashes. A little more attention given to the manufacture and husbandry of manure, by the dairy farmers, would not be without value, in the increased productiveness and consequently enhanced value of their farm crops. A farm, devoted to dairying, which is not competent to produce wheat at the rate of thirty bushels per acre, exhibits evidences of a loose system of management. Wheat in this region has been a superior crop, the present season, both as regards quality and quantity. This may be accounted for by the comparative absence of the midge, which seems to be gradually disappearing, and the dryness of the season: the former, perhaps, the result of the latter circumstance. The wheat cultivated in this part of the country is the spring variety, fall wheat being too tender to withstand the rigour of the climate. A considerable quantity of flax has been grown in this vicinity; yet I fear it will never be a paying crop, until we have the advantage of a permanent market, which we have not at present. There are many

other crops which might receive more attention by Canadian farmers, and the growth of which would be, decidedly, a paying investment."

Flax Progress.

We learn, with much pleasure, that the Messrs. Perine are now manufacturing coarse linen bags from flax of Canadian growth, at their mills in Doon, where they have already some eight looms at work. They have also a like number about ready to commence operations, which are adapted to weave the seamless bags so much in use by the farming community. Mr. J. A. Donaldson, Government Emigration agent, of this city, informs us that he has on hand for inspection at his office, on Front Street, samples of cottonized flax from a factory recently started in St. Catharines. This is an important step in flax manufacture, and one whose success is every way desirable. It opens a market for coarse qualities of flax, and converts the tow or refuse that is taken from the flax in the process of scutching, into an article which is in universal and constant requisition. Mr. Donaldson also informs us that he has already received applications for some fifty scutchers, a fact which clearly shows the increasing attention which is being given to this branch of industry. The oil mills recently started in this city, are receiving large quantities of flax seed. Some thirty thousand bushels of this year's growth have already, we understand, found their way thither. Similar mills are projected or in course of erection at Woodstock and Preston. Everything betokens a prosperous future for this branch of agricultural and manufacturing enterprise. We learn that the present season has proved a good one for the flax crop in Ireland. As a sample of the items which are appearing on this subject, we call the following from the correspondence of the *Belfast News Letter*:—

EXTRAORDINARY YIELD OF FLAX.—The expectations of the farmers respecting the produce of the flax crop in the neighbourhood of Ballygawley are likely to be realised this season. As a proof, we may mention the fact that Mr. John Riddle, proprietor of the Stewart's Arms Hotel, Ballygawley, brought down the produce of six-and-a-half pecks of seed to Mr. Geo. V. Stewart's steam scutch mill, which yielded him 61 stone of flax, value for about 9s. 6d. per stone, or equal to upwards of £2 8s. per acre. Another man, named Robert Williamson, a tenant of Mr. Montgomery Moore, in the neighbourhood of Aughnacloy, brought down one-and-a-half pecks to the same mills, which produced him 11½ stone of flax, worth about 9s. per stone, which will be about £48 6s. per Irish acre. The seed was imported by Mr. G. Vesey Stewart, from Messrs. Mees & Morus, Rotterdam.

Etobicoke Fall Show.

The Annual Fall Show of the Etobicoke Agricultural Society was held on Thursday, 27th ult., at the village of Islington. The attendance of sight-seers was very large; in fact, it seemed as if all the township was out-of-doors. The arrangements of the committee were somewhat different from those of last year. The large *marquee* in which the fancy work, fruit and vegetables had been exhibited last year, was not to be seen; but a much more comfortable place, at least for the visitors, was found in the Temperance Hall. Four large tables, extending from north to south, furnished ample accommodation for the fruit and samples of fancy work. The roots and vegetables were at the south end of the room. The display of fruit was very good—equal to that of the Union Show recently held in this city in quality, if not in quantity. There were some very tempting apples and pears, and some luscious grapes, which gave great promise of excellence; and, if the taste was equal to the looks, they were good indeed. The fruit crop, especially apples and pears, has been very good throughout the counties of York and Peel; in fact, it would be difficult to find any superior to those exhibited at Islington, in any section of the Province. The dairy was extremely well represented, and the samples of butter and cheese were equal to any we have seen. The Fine Arts department gave evidence of the excellent taste of the farmers' wives and daughters in the vicinity. The samples of fancy knitting and worsted work were good, both as to design and execution. The ornamental was combined with the useful; and the display of socks, gloves and stockings, was such as to suggest that the winter was not far distant. A large number of quilts, cunningly worked, were suspended in various places,—and these bore evidence of the patience and the good taste of the workers—some of them seemed almost too beautiful for use. Canadian

wool and Canadian cloths—the latter made into pieces of gentlemen's wearing apparel—bore evidence of the advancement of home manufactures. Boots and shoes, fine and coarse, also put in their appearance. The vegetable show was very superior. It was surprising to see the size to which the potato could be got by careful cultivation. There were potatoes on exhibition, at least nine inches in length and five in circumference; there were others somewhat resembling an Armstrong gun ball. Turnips, beets, mangel wurzel and carrots, were not forgotten.

The horse show was not so large as last year, although there were some noble-looking animals.

The show of cattle took place in a field close to the road, and was not so large as last year, although those on the ground were of good quality.

There were very few pigs on the ground. The show of sheep was not large, neither were there any of very superior quality, except those belonging to Mr. Thos. Smith, of Toronto township. The show of implements was very limited.

Vaughan Township Fair.

This Township Fair, which was held in Berwick on the 26th ult., was a great success. The arrangements of the officers were well made and thoroughly acted up to. Everything passed off quite pleasantly. The village of Berwick was well filled with sight-seers, and all seemed to enjoy themselves to the utmost. The domestic manufactures, vegetables and roots were placed on exhibition in the tent, and this, of course, was the great centre of attraction, especially for the ladies, who mustered in great force.

The quantity of vegetables exhibited was not large, but the quality was exceedingly good. The apples and pears were equal to any that were shown either at the Provincial Fair in Hamilton or the Union Show in Toronto. Prizes were offered for home-made bread, and the display would have pleased the eyes of any hungry man. Side by side with the bread was placed a very large assortment of fresh and firkin butter, cheese and honey, all of which were apparently excellent. The department of domestic manufactures was well filled, fancy and useful articles being exposed to view in great profusion. There were quilts, shirts, stockings, socks of most comfortable appearance, and hearth rugs which reminded one of winter and its fireside. After the useful came the ornamental, the quantity of raised Berlin work, fancy sewing and crocheted work was very large, and bore evidence of the good taste and nimble fingers of the ladies who took so much pains in fashioning the pretty things. Flannels, blankets, and cloth of home manufacture presented a strong "front," and the handiwork of the saddle and harness maker was not forgotten.

The show of horses was extremely good, a large number of fine animals being on the ground. Cattle, sheep, and pigs, mustered in good strength, and were well worth seeing. There was a fine show of agricultural implements. Mr. John Abell, of Berwick, exhibited a splendid horse-power threshing machine, made after the latest and most improved plans. The same exhibitor had on the ground two straw-cutters; one of these was made so as to cut feed into three different sizes by the adjustment of cog wheels. The other was more simple and smaller, fitted up with a moveable mouth. There were several seed-drills and wagons, both light and heavy. Mr. J. Abell exhibited a hand roller and clod-crusher combined, which is apparently well suited for the work for which it is constructed. Flax was not forgotten at this show, there being seven entries. Mr. John Clark, of Brampton, took the first prize, as he has done at almost every place where he has exhibited his samples. The weather was everything that could be desired, and the show was said, by competent judges, to be the best which has been held for many years.

SOUTH RIDING OF LANARK AGRICULTURAL SOCIETY.—The Annual Exhibition of this Society came off on Wednesday and Thursday last. It was certainly one of the most successful ever held in Perth, as regards the number and quality of the articles exhibited; but the number of visitors was comparatively small, few people being in from the country. This was entirely owing to the fact that no information whatever was circulated as to the time and place of holding the Exhibition. Even in Perth, very few people were aware of when and where the Exhibition was to take place, until the day of the show. The Directors kept all the information to themselves—a very unwise piece of economy. If proper notice had been given we feel certain great numbers would have been present.—*Perth Expositor*.

NORTH ONTARIO AGRICULTURAL FALL SHOW.—The above show was held in Prince Albert, on Tuesday, the 11th inst. It was numerously attended, and well represented in all the classes.—*Whitby Chronicle*.

DUNDAS COUNTY SHOW.—The directors made every necessary preparation for the annual show in Dundas, the grounds were in excellent order, and the exhibition was good. But the unfavourable weather marred the success.—*Cornwall Freeholder*.

ASPHODEL, BELMONT, AND DUMFRIES AGRICULTURAL SHOW.—The Fall Show of this Society was held in the village of Norwood, on Tuesday the 11th ult. The show was a very successful one, there being four hundred and fifty entries, which is about one hundred more than on any previous year.—*Peterboro' Examiner*.

COUNTY GREY AGRICULTURAL SHOW.—The Grey County Show was held at Durham, on Tuesday, the 11th ult., and was probably the most successful ever held in the County. The weather was all that could have been desired, and the animals and articles on exhibition were of superior quality. In the evening a number of gentlemen belonging to the Society partook of an agricultural dinner at Mr. Midaugl's Hotel.—*Con.*

THE SNOWS.—We have been surrounded by agricultural shows during the past week, whose proceedings it is utterly impossible to chronicle. Brantford was very successful, and South Dumfries took away a great proportion of the prizes. North Waterloo attracted a great company, and made a good show, to which our friends in North Dumfries largely contributed, and were very lucky, some of the best prizes coming amongst them. The Wellington Shows and that of Puslinch have likewise been great successes.—*Galt Reporter*.

DENNISVILLE FALL SHOW.—The Fall Show of the Eastern Branch Agricultural Society took place at Dennisville on Thursday last, and, on the whole, was a pretty good affair. The turn-out of the people was good; but, as in some other parts of the country, the farmers do not take that interest in the matter they should do. The officers did all they could to advance the interests of the Society, but the competition was not what it should have been, although there were some excellent animals and articles shown.—*Grand River Sachem*.

ESSEX COUNTY AGRICULTURAL SHOW.—With the exception of fruit, which has proved rather poor this season, the Show was in every respect fully equal to those of previous years. The live stock exhibited was very creditable to the County, and the samples of grain and roots were very fair, while dairy produce and domestic manufactures occupied their usual share of the space allotted to exhibitors. Some fine specimens of ladies' work, both useful and ornamental, deserve mention as creditable alike to the taste and ingenuity of the fair competitors.—*Essex Record*.

NORTH YORK FALL SHOW.—The Annual Fall Show and Ploughing Match of the above Society took place on Tuesday and Wednesday last, and was decidedly the best ever held by the Association. 931 entries were made in the various classes for competition—equalling, in most respects, if not superior to the Exhibition in the Crystal Palace of Toronto this year. The Ploughing Match on Wednesday was the most successful ever held in the Riding. It was indeed grand and noble to see the spirit manifested by 36 as good hearted and generous fellows as you will generally meet with, contending manfully for the mastery. The work executed was a credit to the Riding and a credit to the Province. Indeed, the crack ploughmen of the country were here; but old North York maintained her proud position. The old men and now the middle-aged men have succeeded in winning the best prizes ever contended for in the county.—*Newmarket Era*.

HALTON COUNTY SHOW.—All fears of the weather proving unfavourable were dispelled by the glorious sunbeams on the morning of the 13th. The weather was all that could be hoped for. The turn out of people was very large, probably in excess of any former year, although the merchants of Milton felt the failure of the crops by the diminished amount of cash exchanged on the show day. We must congratulate the Society on the receipts, which were \$427, of which about \$225 will be given in prizes, leaving a handsome balance, after deducting a small amount for expenses. The show ground presented a fine appearance. Although the crowd was large there was no jamming, owing to the amount of space in the enclosure. The Floral Hall was magnificent. We had no idea that Halton would be so well represented in the fine arts. In the centre of the Hall, on the ground floor, was a beautiful stand, rising tier after tier, covered with flowers and flower-bearing shrubs, somewhat after the style of that at the Provincial Exhibition.—*Canadian Champion*.

LENNOX AGRICULTURAL EXHIBITION.—Our County Show on Thursday, considering the unfavourableness of the weather and the bad state of the roads, was exceedingly gratifying to the friends and directors of the Society. We have not ascertained the number of entries made in the various departments, but do not think it was so large as on some previous occasions, but the quality of the articles exhibited has seldom been better. The attendance was exceedingly large, and the arrangements as satisfactory as circumstances would allow.

A new and interesting feature is likely to be introduced in connection with our County Society. The benefit of Ploughing Matches has been seen in other localities, and it is resolved to introduce them here. We are pleased to learn that through the liberality of W. S. Williams, Esq., Attorney, of this town, a silver medal will be placed at the disposal of the Directors to confer on the best ploughman. This match will take place some time next spring and due notice will be previously given. It would be well to offer premiums on Stallions and Bulls at the same time. This practice is being introduced in several Counties and may be considered an improvement.—*Napanee Standard*.

DURHAM COUNTY FAIR.—The Annual Fall Show in connection with the West Riding of the County of Durham Agricultural Society was held in Bowmanville, on Thursday evening and Friday last, and was, without exception, the most successful fair, in many respects, ever held in the county. Never before did Bowmanville enjoy such a day. The number of visitors was immense—estimated at four or five thousand people—from far and near. The weather was all that could be desired, thus encouraging persons to come out.

The show itself was a grand one, especially in the floral hall, which was open to the public on Thursday evening. On entering the hall a splendid lot of roots and vegetables met the eye. Fruit was not quite so large as we have seen at times before, but this we presume was owing to the smallness of the prize list. In butter there was keen competition, and we fancy the judges must have had considerable difficulty in awarding prizes. There was also a great variety of bread, fit for the table of a king. The show of ladies' work was really splendid, and was well worthy of inspection. In grain and seeds there was considerable competition. In the field there was also a great stir. The show of sheep was particularly fine.—*Bowmanville Statesman*.

WEST RIDING AGRICULTURAL EXHIBITION.—The Annual Exhibition of the West Riding of Northumberland Agricultural Society was held in this town on Tuesday and Wednesday last. The first day was occupied principally in making entries and perfecting arrangements, so that Wednesday was in reality the Exhibition day. The show of Horses was good. The Cattle were all fine animals. In Durhams and Devons, the honors were pretty well divided. In Ayrshires, all the prizes but one were taken by Mr. P. R. Wright and Mr. John Pratt; and, with one exception, all the prizes for Galloways were awarded to the Messrs. Roddick. The entries in Sheep were large, and many fine animals of their respective classes were exhibited. The show of Swine was not so large as usual. The Poultry and Implements were considerably less in number than was anticipated. For some reason there were no premiums offered for Fruit or Flowers, and there were none entered. As might be expected, the samples of grain were nearly all first-class, and the roots and vegetables were very fine. Of butter and cheese there were a good many samples shown, and some very nice looking maple sugar. The display of ladies' work was large and evidenced a great amount of skill and taste. Altogether the Show was a good one and greatly encouraged the Society in the idea of fixing upon Cobourg permanently, as the place for their Exhibitions. The weather was fine and the attendance of farmers and their families very large.—*Cobourg Star*.

Ploughing Matches.

DOWNIE PROGRESS MATCH.—The Ploughing Match for the Township of Downie took place on Tuesday last, on the farm of Mr. Nelson, Lot 9, Con. 6, and was in every respect a most gratifying evidence of the progress of agriculture in this county. The competitors were sixteen in number, fourteen men and two boys; five prizes being offered to the former and two to the latter. The first prize of \$6, for men, was carried off by Thomas Steele; 2nd prize, \$5, James Gloyne; 3rd prize, \$4, William Todd; 4th prize, \$3, Thomas Ballantyne; 5th prize, \$2, William Simpson. James Ballantyne took the 1st prize of \$1 for boys, and James Ballantyne (Langside) the 2nd prize of \$3. A very large number of spectators assembled to witness the match, and the competition was remarkably keen.—*Id.*

NORTH EASTHOPE PLOUGHING MATCH.—As advertised, the Ploughing Match, open to North and South Easthope, took place on the farm of William Crerar, Esq., lot 22, con. 3, on Tuesday last. Twenty competitors entered the field. The following prizes were awarded in the several classes:—**MEN'S CLASS.**—1st, D. Crerar, Easthope, \$6; 2nd, John Smith S. E., \$5; 3rd, Alexander Kippan, sen., N. E., wheelbarrow, value \$1; 4th, Alexander M. Fisher, do., \$3; 5th, Duncan Forbes, do., pair halters, value \$2; 6th, John A. Kippan, do., clothes horse, value \$1. **BOYS' CLASS.**—1st, John Quinlivan, North Easthope; 2nd, John D. Kippan, do.; 3rd, Douglas Fraser, do.; 4th, J. Hamilton, do.; 5th, Thomas Riddell, do.—*ib.*

VICTORIA PLOUGHING MATCH. The County Ploughing Match took place last Friday on Mr. Richard Grimson's farm, township of Mariposa. The day was everything that could be desired—a beautiful, clear Canadian Autumn day—but the number of Ploughs on the ground was far below what we expected. Only seven entered an appearance. Taking the nature of the ground into account, the ploughing was as good on the whole as any ever done in the County. In every case the decision of the Judges was unanimous, and the proceedings altogether were of the most agreeable character. The following were the successful competitors: Iron Ploughs. 1st, George Endicott, Emily; 2nd, Robert Dobson, Mariposa; 3rd, Donald Jackson, Eldon. Wooden Ploughs: 1st, David Taylor, Mariposa; 2nd, David Bateman, Mariposa; 3rd, Henry Lloyd, Mariposa.—*Lindsay Post.*

CHALLENGE PLOUGHING MATCH.—The ploughing match between the Agricultural Society of Otonabee, and the Society of Asphodel, Dummer and Belmont, came off on the 15th inst., on the farm of Hugh Ewing, Esq., in Asphodel. Eighteen ploughmen enrolled themselves, twelve being from Otonabee, four from Asphodel, and two from Dummer.

The list of prize bearers is as follows:—1st prize, Jas. Stewart, of Otonabee; 2nd do. Hugh Christie, of Asphodel; 3rd do. James Smith, of Asphodel; 4th do. Hugh McFee, of Dummer, 5th do. Thos. Blizard, of Otonabee; 6th do. D. Henderson, of Otonabee; 7th do. R. A. Kidd, of Dummer, the close of the proceedings thus leaving the Society of Asphodel, Belmont, and Dummer winners by the odd prize. The winner of the first prize received a beautifully finished Plough, made by Messrs. White & Hamilton, and the winner of the second prize, one of Hill's Patent Ploughs, made by Wm. Helm of Peterboro'. Both of these ploughs were generously presented to the Committee of Management by the makers, as the first and second prizes.

PUSLINCH PLOUGHING MATCH.—The Ploughing Match in connection with the Agricultural Society of the township of Puslinch was held on the farm of Thomas Arkell, Esq., Puslinch Plains, on Tuesday the 15th instant. Ten men and six boys entered the lists for competition. The ploughing on the whole was excellent, and would compete favourably with any work done in the neighbouring townships. An English plough which Mr. Arkell got out last year, attracted considerable attention. It is furnished with two wheels which are intended to gauge the width and depth of the furrow. The holder, Mr. Thomas Arkell, jr., competed this year for the first time in the men's class and took the second prize. The work which took the first prize was performed by one of the ploughs made by Mr. Burrows, of Eden Mills. The following is the prize list:—**MEN'S CLASS.**—1st, Peter Arkell, \$5; 2nd, Thos. Arkell, jr., \$1; 3rd, John Hes, jr., \$3; 4th, John Arkell, \$2; 5th, Charles McIntosh, \$1; 6th, Edmund Wakefield, 50 cents. **BOYS' CLASS.**—1st, Adam McKenzie, \$5; 2nd, Francis Beattie, \$1; 3rd, Donald Grant, \$3; 4th, Adam Cook, \$2; 5th, Adam McRobie, \$1; 6th, Cullen Watt, 50 cents.

GRAND UNION PLOUGHING MATCH.—We learn from the *Guelph Mercury* that the Union Ploughing Match, under the auspices of the South Wellington, Guelph, Eramosa and Puslinch Agricultural Societies, was held on the farm of Mr. Arthur Jones, Four Corners Inn, on the 20th ult. In addition to the large number of prizes given by the Societies, Mr. Joseph Hall, of Oshawa, offered one of his Mowers to the best ploughman. This offer gave additional interest to the match, and brought many from a distance who would not otherwise have competed. The competition for the mower was confined to ploughmen who were members of either the North or South Wellington Agricultural Societies. The cash premiums were open to the Province. The entries numbered in all 51. The men ploughed in one field, the boys in another. It was the opinion of competent judges on the ground that the work, taken altogether, though undoubtedly good, was not equal to what was done at the same place three weeks ago, when the County Ploughing Match was held on the same farm. There were a great many people present, and the weather being pleasant, everything passed off well. The

prizes were awarded as follows:—Mr. Hall's prize of a mowing machine, valued at \$90, John Bolton, Guelph class.

FIRST CLASS.—(Men.)—William Murray, Nichol, \$10; 2nd, Peter Arkell, Puslinch, \$8; 3rd, Wm. Parkin, Nelson, \$6; 4th, William Duff, Nichol, \$4; 5th, John Wilson, \$3; 6th, Charles McIntosh, Puslinch, \$2; 7th, John Richardson, Garafraxa, \$1.

SECOND CLASS.—(Youths from 17 to 21.) 1st, Wm. Armstrong, Eramosa, \$8; 2nd, John Simpson, Nichol, \$6; 3rd, Edward Wakefield, Puslinch, \$5; 4th, Edwin Day, Eramosa, \$3; 5th, Thomas Wood, Eramosa, \$2; 6th, James Wilson, \$1.

THIRD CLASS.—(Boys under 17.) 1st, John Talbot, Eramosa, \$6; 2nd, Walter Day, Eramosa, \$5; 3rd, Geo. Wood, Eramosa, \$1; 4th, Adam McKenzie, Puslinch, \$3; 5th, B. Tolton, Eramosa, \$2; 6th, Alex. Johnstone, \$1.

NORTH DUMRIES PLOUGHING MATCH.—This annual match came off on Wednesday, the 26th ult., on a fine piece of land on the farm of Mr. James Cowan, near Galt. The day being every way favourable, there was a large turn-out of teams and also of visitors, and upwards of eighteen span of horses were speedily at work upon the lea. The opinion of experienced on-lookers was, that with one or two exceptions, the ploughing did not excel that of former years. The judges, Messrs. J. Moore, R. Dickie, and J. Patterson, after a most patient and painstaking investigation, awarded the prizes as follows:—For men—1st, Robt. Cranston, plough, Tait & McHaffie's; 2nd, James Dickie, plough, do; 3rd, Nicholas McGregor; 4th, Andrew Brydon; 5th, John McNab. For best finish—R. Cranston. Best groomed and harnessed horses—1st, W. Moore; 2nd, James Dickie. For youths—1st, Robert Carswell, prize, a plough, (\$12) by Mr. Watson, Ayr; 2nd, Charles Linton; 3rd, Wm. Moore; 4th, James McDonald; 5th, Donald Mackay. For best finish—Charles Linton. It was, on all hands, admitted that the lads acquitted themselves admirably, the two first turning out work little, if at all inferior, to the majority of their more aged and experienced rivals.

PERTH COUNTY PLOUGHING MATCH.—This match took place yesterday (Thursday), on the farm of John Anderson, Esq., Lot No. 31, 1st Concession of the Township of North Easthope. The day was fine, and the number of spectators could not be less than 500. From the number and value of the prizes offered, unusual interest was manifested in the match, and the judgements were such as to cause every ploughman on the ground to put his best foot foremost. There were in all 25 entries—14 in the first men's class, and 6 in the second, and 4 in the boys' class. The following were adjudged the prizes:—**Men.**—1st Class.—Wm. Todd, Downie, a mower, the gift of Joseph Hall, Esq., Oshawa, value \$90; 2nd, Thomas Steele, Downie, iron plough, the donation of R. MacFarlane, Esq., M.P.P., value \$10; 3rd, Jas. Gloyn, Downie, pair of Scotch collars, by E. Leslie, Esq., saddler, Stratford, value \$15. **Men.**—2nd Class.—1st, Andrew Riddle, North Easthope, \$1; 2nd, John McMillan, do., \$5; 3rd, John Gibb, Downie, \$1; 4th, Peter Hay, North Easthope, \$3. **Boys' Class.**—1st, John Quinlivan, North Easthope, cast metal beam, steel mould board plough, donated by R. Thompson, Esq., Mitchell, value \$18; 2nd, James Ballantyne, Downie, \$4; 3rd, John D. Kippan, North Easthope, \$3; 4th, Douglas Fraser, do., \$2.—*Stratford Beacon.*

PLOUGHING MATCH.—The annual ploughing match under the auspices of the Fullarton, Logan, and Hibbert Agricultural Society came off on Wednesday, on the farm of P. Botteral, Esq., Fullarton. The weather was all that could be desired. Eighteen ploughmen entered—13 in the men's class, and 5 in the boys'. The ploughing was decidedly superior to any hitherto done in this section. The sums now given we consider far too small to attract any except ploughmen living in the immediate neighbourhood where the match is held. The following are the names of the judges and successful competitors:—Judges: Mr. Sproat, Tuckersmith, Mr. Salkeld, Downie, and Mr. McMurray, Logan. First class, iron ploughs, 1st, prize, Mr. Gardner, Hibbert, \$1; 2nd do. Alex. Melville, Fullarton, \$3; 3rd do. R. Bell, Fullarton, \$2. Second class, wooden ploughs, 1st prize, R. Barber, Hibbert, \$4; 2nd do. J. Harburn, Hibbert, \$3; 3rd do. Archibald Graham, Hibbert, \$2. Third class, open to young men under 18 years of age, 1st prize, Francis Hamilton, Hibbert, \$1; 2nd do. A. Melville, Fullarton, \$3; 3rd do. — Moore, Fullarton, \$2. The special prize of a splendid new plough presented by Mr. Thompson, Mitchell foundry, was then competed for, and won by Archibald Graham, Hibbert.—*Stratford Beacon.*

NORTH HASTINGS PLOUGHING MATCH.—This much talked-of and long-anticipated match came off on Friday, 21st ult., on the farm of Mr. Geo. Connelly, Lot No. 9, in the 3rd concession of Rawdon. The day was remarkably fine, and the number of specta-

tors unusually large,—the crowd being variously estimated at from 800 to 1,600. There were nine prizes, given by the member for the Ridgug, T. C. Wallbridge, Esq., to be ploughed for by the residents of North Hastings alone,—the person ploughing to use any description of plough, providing he was the owner, or it was in use by his master. To the first prize was added the sum of ten dollars; and, to the second, the sum of five dollars. The nine prizes were composed of the following ploughs:—1 "Excelsior"; 2 "Morley" ploughs; 2 iron beam (double curve) steel mould boards; 1 "Curtis" plough, iron; 1 "Duke of Wellington"; 1 "Peekskill," and 1 "Massachusetts"; the prize-men to have choice of ploughs in accordance to their rank. The Prize List was as follows:—

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|-------------------------|---------------------------|
| John McMillan,.... 1st. | Jas. Hutchinson,.... 2nd. |
| Wm. Hilton,..... 3rd. | Daniel Foster,.... 4th. |
| Wm. Drewry,..... 5th. | Benj. Foster,.... 6th. |
| Thos. McGomery, .. 7th. | Geo. Taylor,.... 8th. |
| Walter Crask,..... 9th. | |
- Hastings Chronicle.*

INNISFIL PLOUGHING MATCH.—A ploughing match took place on Saturday the 15th instant, on the farm of James Reid, Esquire, 5th concession of Innisfil. In the men's class there were four ploughs entered, and in the boys' class there were nine,—making thirteen altogether. Eight prizes were awarded as follows:—

- | | |
|-------------------------|--------------------------|
| MEN'S CLASS. | |
| James Smith,..... 1st. | John Peacock,.... 2nd. |
| Robert Reeves,.... 3rd. | John Patterson,.... 4th. |
| BOYS' CLASS. | |
| John Barclay,.... 1st. | William Greeves, .. 2nd. |
| John Benniman, .. 3rd. | Alexander Ness, .. 4th. |
- Barrie Examiner.*

Poetry.

Flowers for Children.

On, the flow'rets, the bonnie wee flow'rets,
Glinting and smiling, and peeping thr'ugh the grass!
And oh the children, the bonnie little children,
I see them and love them, and bless them as I pass!
I bless them—but I'm sad for them—
I wish I could be glad for them,
For who, alas! can tell me the fate that shall befall?
The flow'rets of the morning,
The greenwood path adorning,
May be scattered ere the noontide by the wild wind's sudden call!
Or plucked because they're beautiful,
By rudest hands, undutiful;
Or trampled underfoot by the cattle of the stall;
And the smiling little children, the bonnie little children,
That sport like happy moths in the sunny summer sheen,
May perish ere the daytime
Of their sweet expected May-time,
And sleep beneath the daisies and the long grass growing green;
Or a worse, worse fate may light on them,
And cast more fatal blight on them.
The bonnie little maiden may be woo'd and cast away,
And the bonnie boy prove ruthless,
Or cowardly or truthless,
Or a gold adoring hypocrite before his head be gray
But oh, ye fairy blossoms! whatever be the future,
I would not, if I might, peer through its awful glass,
Bloom, flow'rets of the wild wood!
Rejoice, oh happy childhood!
I look at you and love you, and bless you as I pass
—*Charles Mackay.*

Whip-poor-will.

BY ALEXANDER M'LAGHLAN.

THERE is a lonely spirit
Which wanders thro' the wood,
And tells its mournful story
In every solitude,
It comes abroad at eventide
And hangs beside the rill,
And murmurs to the ear of night
"Whip-poor-will."

Oh! tis a hapless spirit
In likeness of a bird,
A grief that cannot utter
Another woeful word,
A soul that seeks for sympathy,
A woe that won't be still,
A wandering sorrow murmuring
"Whip-poor-will."

—*Selections from Canadian Poets.*

Miscellaneous.

City and Country—With a Good Word for the City.

A SUPERSTITIOUS belief that the country is the only place in which to enjoy life during the dog-days prevails almost universally among that portion of metropolitan society prevented by circumstances over which it has no control from migrating in summer to the rural districts. The starlings who "can't get out" from exaggerated ideas of the felicity of the birds of passage, who flee away to bucolic regions at the commencement of the heated term. But the stay-at-homes, we take leave to say, have no sound reason to envy the migrants. It is a vulgar error to suppose that, when the quicksilver of the thermometer is on the "rampage," the City can better his condition by heating up the quarters of the Fauns and Dryads. Country roads are dusty, and as a general thing shadeless, and the umbrageous woods are breezeless. No continuous blocks afford miles of shadow to the pedestrian, no brick and mortar air-ducts diverging to all points of the compass break the atmosphere up into currents and whirling eddies into the pastoral and sylvan land. To be sure the country mornings are cool and refreshing in July and August, and mother earth, after being in tears all night, looks quite pretty when the rosy dawn smiles in upon the weeping. But we are not fond of brushing

"— with hasty steps the dew away
To meet the sun upon the upland lawn."

There is a good deal of rheumatism and diphtheria in dew. Its infinitesimal globules are by no means hygienic, but, on the contrary, promotives of "the shakes." It is a glorious thing to see the sun rise, but we are content to receive the fact on trust from the poets, without verifying it by personal observation. The world is good enough for us after breakfast; and we prefer a pavement cooled with sprinkling of the Croton to long grass saturated with insidious moisture that runs into our shoes.

Summer nights in the country are much eulogized of imaginative persons; but we decidedly prefer the urban article. In these delectable farm-houses where you get fresh eggs (boiled to the dyspeptic point of induration) and newly churned butter (so soft that it might not improperly be called cow-oil), they invariably sleep you on feathers. It is a point of conscience with the inhabitants of the yeoman districts to treat their summer guests as if they were suffering from rabies and required to be smothered in feather beds. One of these nuisances contents the farmer and his wife, but out of their exceeding hospitality they generally give a lodger two. They have no idea of curled hair-mattresses, and would consider a bed with spiral springs disreputable. There is also a drawback connected with too many rustic bedsteads which we hesitate to name. Suffice it to say, in the language of the superstitious among the Scottish peasantry, that they are "aye haunted by the brownies." It is a matter of regret—especially with "summer boarders"—that the farming interest is not more insectivorous.

As to the quiet of the country summer night, there is room for two opinions. We are not partial to bull-frog serenades, neither are owl solos agreeable to us. Upon the whole, we would rather hear Patti or even Vestvali. Shakspeare intimates that rustics are

"— hushed by buzzing night flies to their slumber,"

but such music keeps the unaccustomed citizen awake. The rural night flies, as the town reader has no doubt observed, if he has ever trespassed upon their domain, have a special and spiteful antipathy to city persons. They put a double dose of poison into their tubular suckers when they assail the untanned stranger, and make most vituperative and taunting music in his ears. Upon the whole, we prefer the city mosquito to its pastoral brother. It is more respectful in its tones and of less ferocious instincts.

Of rural edibles the less said (and we may add the less eaten) the better. It would be a libel on the India rubber tree to call farm-house beef caoutchouc. And then the gravy! But "no more of that"—there are some things over which it is as well to draw a veil. The veal and lamb are a little better, naturally, than the beef, but the untutored Phyllis of the husbandman's kitchen misuseth them to that degree one wonders where she learned the trick of spoiling the gifts of Providence. Always ask a blessing on country meals. They need it! "But," says some unsophisticated member of the Can't-get-away Club, "the vegetables and fruit are so nice and fresh where they grow—and fruit and vegetables are pretty much all wants in the way of eatables in hot weather." Sir, permit us to say that you labour under a mistake. If you have ever been ten miles beyond the bricks, you ought to know that in farm-houses they always serve

their peas grey. They like their pulse mealy and not succulent. May heaven pardon the perverseness of their taste, for it is more than we can do. *Au contraire*, they despise mealy potatoes and feed the esculent out to you in a sodden state. They call their French beans "string beans," and very properly, for they never peel off the stringy part, so that they stick in your teeth like skeins of thread. Cucumbers, as a rule, they gather at high noon, and serve the warm slices up in warm vinegar. We are not sure that they don't heat the plate they macerate them in. They have a parboiled flavour that we shudder to recall and are very deadly. If you escape with a mild attack of colic after a dose of them, think yourself well off. As to farm fruits, they are almost invariably worthless. No care is bestowed on their culture, and, as the small birds are frightened away from the premises with scarecrows, the insects have it all their own way with the cherries, plums, and peaches. Rusticus insists that the finches and sparrows devour his crops and his fruit, and so he makes war upon the best protectors of both, and thus gives countenance and support to the grubs, bugs and caterpillars. You may think you could teach him better, man of science; but you couldn't. We have tried the experiment, and know whereof we write.

The city market is the place for the kindly fruits of the earth. One gets them there in perfection. The newspapers' promises of delicious fruit and vegetables, made by country folk who advertise for "a few summer boarders," are for the most part a delusion and a snare. If you want your peas green and your peaches plump and sound, stick to the city.

Ice-cold water is a delightful thing when the "Dog-Star" rages; but don't expect it in yeoman dwellings. There that jingle of winter's diamonds—that refreshing mid-summer music that accompanies every city meal—is unknown. The "moss-covered bucket that hangs in the well" will afford you a cool drink if you choose to expend as much fluid in hauling it up as you can imbibe after having performed the task; but, as rustic families usually take their water lukewarm, you will seldom get a cold draught, except at first hand.

We congratulate the caged birds of the metropolis on their inability to escape. Let them not beat their foolish heads impatiently against the wires. They are better off, during the summer solstice, in their own domicils, with all the warm-weather luxuries of the city within their reach, than they could possibly be in the country.

"'Tis distance lends enchantment to the view."

Nature, when you come in contact with her, is rarely all your fancy painted her. She is pleasant "for a day," but not "for all (the summer) time."—*Round Table*.

Farmers and the Paint-Pot.

A GENTLEMAN of great experience, both as a factor and a farmer, has recently brought under our observation the subject, "the paint-pot," or rather what is generally known as black varnish—a most important one in many respects to the farmer. In going over farm steadings and field enclosures there is nothing more common, and nothing, indeed, which looks worse than to see all the woodwork standing just as it was put in; and, if it has been exposed long to the weather, going fast to destruction for want of a little timely attention. Doors and windows, stall and pillar, gate and fence, all crumbling and rotting away without anything being done to arrest the progress of decay. In the engine-house and other places where iron is employed about the farm, as well as the wire-fencing which is now coming so much into use, the same process of decay may frequently be observed. The action of the weather is soon visible on the iron-plating and wire-fencing, and in a short time there are holes in the plates, and the wire snaps through. To show how this can be remedied in a cheap and effectual way is the object of this notice. It is evident that the usual system of painting would be too expensive to be generally taken advantage of. An excellent substitute, however, is found in the black varnish alluded to, and already it is coming into very general use in various localities. Not the least recommendation is its cheapness. For application to wood it can be obtained at 8d., and for iron at 1s. 4d. per gallon. It can also be put on at little or no expense, in the slack season of the year, by supplying the farm-labourers with a brush and a picherful. Being simply laid on, several miles of wire-fencing may be gone over in a day. As it forms a kind of skin, it is of course impervious to the weather, and, we understand, it will last in excellent condition for at least two years. Its great utility in preserving everything to which it is applied, together with its cheapness, will no doubt speedily ensure its almost universal use at every farm-steading. That we have seen was obtained from a Liverpool house, but it will very likely be met with elsewhere.—*British Paper*.

Painting.

OIL is better for being boiled, skimmed, and strained through wire or coarse muslin; and some painters boil a few cents worth of litharge in each gallon of oil, to facilitate the operation of drying. Most colours desired can be had ground in oil, and need but to be thinned with oil to the consistence of cream. However, the last professional painter we employed used spirits of turpentine chiefly for all indoors painting, except hearths, which, like outdoors work, being subject constantly to the action of water, must be mixed with oil. As we have said, most primitive colours can be had ground in oil, and need only to be mixed in white paint to afford any desired shade of colour.

Black.—Ivory black or common lamp-black mixed in oil and strained is used for common painting; does for base boards, mantles, &c.

Lead Colour.—Mix black paint with white until the shade suits you.

Olive.—Mix yellow ochre with lead coloured paint until you are suited in colour.

Buff.—Yellow is the base of buff, into which is mixed cinnabar and white lead.

Green.—Into three quarts of boiling water mix four pounds of Roman vitrol; when dissolved add two pounds of pearl ash; stir with a wooden paddle until effervescence ceases, add a quarter of a pound of pulverized yellow arsenic. Mix thoroughly and give two or three coats. The shade of green will be regulated by the quantity of yellow arsenic used.

Blue.—Indigo ground in oil and mixed in white paint gives several shades of blue, varying in intensity according to the quantity used. Saxon blue, ground in drying oil mixed in white paint, gives the lighter shade of blue.

Venetian Red.—Spanish and the like common paints are simply mixed in oil, and are cheap, and serviceable for garden implements and other purposes, where beauty is not a primary consideration. But a small pecuniary saving should not induce one to paint their out-buildings, gates, &c., with colours which stamp the whole place with unmistakable vulgarity, when sober tints, almost as cheap, or white, do so much to redeem even common surroundings from homeliness.

Cheap White Paint.—Into three pints of sweet skimmed milk or whey mix one quart of oil; then stir in the best and whitest lime to the consistency of cream, and lay on with a brush as many coats as necessary to give a pure colour.

Cheap Drab Paint.—Mix finely sifted hydraulic lime with skim-milk, until it has the usual consistence of paint. Mix but little at a time, and apply with a paint brush.

Now for the process of painting. If your woodwork is new, all nail holes or defects in the wood must be filled so nicely with putty that they cannot be discerned. The wood must be perfectly clean, and rubbed smooth with sand paper. Then the priming, as the first coat is called, must be laid on thin, and is usually white. The successive coats are laid on when the previous coat is dry.

You must take as little paint in your brush as possible; make all the strokes in the same direction, and wherever possible running with the grain of the wood. Rub in the paint well, using a small brush for cracks and crevices, and a large brush for large surfaces. Black panit is usually varnished and will present a fine surface, if after the last coat of paint dries thoroughly, it is rubbed over very smoothly with fine sand paper, and afterwards varnished again. Hearths require several coats of paint, and full time to dry.—*Country Gentleman*.

Gumption.

If there is any one quality which is absolutely necessary to success and happiness, that quality is gumption; and of all unfortunate and to be pitied individuals, are those who lack this inestimable blessing. Not that there is anything very bad about such people. Indeed, they are generally well-meaning, but "they haven't any gumption." That is all one can say about it. No other expression, no elaborate description even, can convey to the mind the precise condition of the class referred to. It would be a hard matter, in fact, to define gumption, yet every one knows just what it means; it would be hard to point out just what is lacking in those who do not possess it, yet every one is aware of the deficiency except the individuals themselves.

If we might venture into the domain of mental science, we would say that gumption is a faculty of the mind somewhat akin to original suggestion; a sort of instinct; sixth sense, it may be, inclining now to fact, now to common sense, according as it is more or less symmetrically developed.

The unfortunate individuals who lack gumption seem to fail chiefly in a due appreciation of the eter-

nal fitness of things. They have no proper sense of where things belong, no idea of the awkward and the ridiculous. They do the right things often enough, but always at the wrong time. They seem to have a genius for getting things by the wrong handle. They will bring you the sheep shears to cut a piece of Florence silk, or a pair of embroidery scissors to cut a hemp rope. Invite them to call and they will be sure to come in the morning—most likely on washing day. If they have an engagement, they will be prompt enough, unless the business is pressing, in which case it is morally certain that they will be late as that the sun will rise to-morrow morning.

But we may as well be patient, and call it an infirmity of poor human nature. It seems to be the province of some people to get things bottom side up, wrong side to, and inside out. They are like a lathe out of order. When the power is applied, no one short of a genuine prophet can tell whether it will turn out a butter bowl or a broom handle. Of one thing, however, you may rest assured. If there is a chance to get out of place, they will find it; if it is possible to make an awkward blunder, they will demonstrate it; and if a thing can be misunderstood, or misrepresented, they are just the ones to do it.—*Rural New Yorker.*

Grape Wine.

The following rules for making wine from grapes are given by M. De Babo, an extensive wine grower at Weinheim, Grand Duchy of Baden:—

1. The grapes should not be gathered until they have arrived at complete maturity, that is to say, when they do not grow sweeter, in a sensible degree. If the weather is good, they may be allowed to hang some time after this, for the purpose of giving the watery parts of the fruit time to evaporate. This increases considerably the strength and sweetness of the wine. Black grapes intended for red wine should not be allowed to get too ripe, as if they do, they injure the colour of the wine.

2. The vessels should be clean, and, above all, should not have contained sour wine. Care should also be taken that nothing should be allowed to fall into the must, which might cause acidity during the fermentation.

3. The white grapes should be put in a tub and pressed as quickly as possible, with the stems on. If obliged to wait before pressing the must, it is best to take out, at least, a portion of the stems which it contains, so that they shall not taste of it. The must of weak and mucilaginous wines ought to be allowed to ferment some days, with the stems, so that the tannin which they contain will assist in the precipitation of the mucilaginous matter. For good wines, the mash, or residuum, of the grape, should never be pressed, as the last juice which comes from the press usually contains a great deal of acid, and but little sugar.

4. For the sharp wines of inferior quality, and for sweet and mucilaginous wines, it is indispensable to put the must into open tubs, and to leave it there for several days. There forms during this time a layer or stratum of a dirty brown colour, which contains a great part of the mucilage, yeast and acid rejected by the must, and which should be taken off with care every time it forms, so as to remove all those substances which affect the taste of the wine, cause fermentation, and do a great deal of mischief.

5. Care should be taken not to put the must into casks which are dirty, or which have been fumed with sulphur. There are some wine-growers who think that the fumes of sulphur applied to casks, preserve the sweetness of wine, and there are ignorant purchasers who permit themselves to be cheated as to the quality of the wine, by the sugar which the unfinished fermentation has left in it without decomposing it. But the following summer these wines are found to be muddy, and ferment often with great force, become sour, and are often completely spoiled. The wine, then, should be placed in casks which have not been fumed, and no obstacle to fermentation should be opposed, nor should it be arrested by the fumes of sulphur. There is no exception to this rule, save for those autumns which are unusually warm, and which cause fears that the fermentation will be too strong. In such a case, the vessels may be fumed with sulphur.

6. The fermentation of red wine should be treated differently from that of white. The must of black grapes may remain open for 24 hours, with the stems mixed with it, so that the tannin contained in them may combine itself with the must. At the end of that time, the stems and the seeds should be separated by means of a sieve, and the must should be put into open vessels, which should be lightly covered during the fermentation. The temperature of the must, during the fermentation, should not be allowed to exceed 15 degs. of Reaumur (65½ degs.

Fahrenheit), in order to prevent the spirit from escaping. Every three or four hours the fermenting mass should be stirred, so as to prevent it from souring.

7. At the end of fifteen or twenty days, when all action has ceased, and the skins have yielded their colouring matter to the must, it should be put under the press and strongly squeezed, so that all the colouring matter shall be extracted. The wine is then placed in casks not fumed; and if it is desired to increase the capacity for tannin, some of the seeds, which should be separated by a sieve from the mash, should be added to it.

8. If the weather is cold, the openings to the cellars should be closed, so that the fermentation may meet with no interruption. Persons should never enter the cellars until they have been tested for carbonic acid by a light. The carbonic acid may be driven from the cellars by opening all the issues, by lighting a fire on the stairway, by throwing hot water into them, and by scattering freshly slaked lime in them. During the fermentation, the bung-hole should only be closed with vine-leaves, or by a little bag filled with sand—the object being to prevent the air from entering at the same time that the carbonic acid is permitted to escape.

9. Towards Christmas the clarification of the wine is about completed, and the yeast, which has become insoluble during the fermentation, is precipitated. Four weeks after the commencement of the fermentation, the casks, which should not be quite filled up at first, become completely full.

10. The racking, or drawing off from the lees at Christmas, is very important and necessary. There always remains in the wine, after the first fermentation, a certain quantity of soluble leaven, and if this is not scattered, and the wine still contains undecomposed sugar, the liquid will become turbid, it will ferment again, and possibly be spoiled. In the first racking, towards the commencement of the year, care should be taken to expose the wine as much as possible to contact with the air, in which case, the oxygen of the atmosphere precipitates the insoluble leaven, and the liquid clarifies completely, so that the second racking may be retarded until the end of April, there being no further fear of fermentation.

11. The following autumn another racking should take place, after which the wine may be considered as completely made. In drawing off, great care should be taken not to mix the portion of the wine at the bottom of the cask, which is still turbid, with the clear part which is above. The turbid part should be placed in a separate vessel, and submitted to a new racking before it is added to the other.

Farmers' Club.

THE Farmers' Club of the American Institute held its regular weekly meeting at its Room at the Cooper Institute, on Tuesday afternoon, Oct. 11, the President, N. C. Ely, in the chair. We make the following selections from the proceedings:—

MULCHING IN DRY WEATHER.

Mr. Robinson read a communication from Alton, Ill., stating that the drouth this year in that vicinity was so severe that the potato crop was a complete failure, except on the farm of William Tucker. He planted his potatoes by laying them on the top of the ground and covering them to a depth of 16 inches with straw, and obtained a good crop.

IVY AND DOGWOOD POISON.

James B. Alcott, of East Greenwich, R. I., wrote a letter on several subjects, and stated, among other things, that if persons coming in contact with poison ivy or dogwood, will wash their hands and faces soon afterwards thoroughly in cold water, they will experience no ill effects from the exposure. The sooner the washing is done the better, but it is sometimes effectual if delayed half a day.

Mr. Quinn:—We have found washing in hot water, soon after exposure, a perfect preventive of the action of the poison.

The President:—It is not understood by all that there are two kinds of ivy, one poisonous and the other harmless. The poisonous variety has three leaves only; the 5-leaved ivy, or Virginia Creeper, may be handled by any one with perfect impunity.

Mr. Robinson:—After the poison has taken effect I think the best remedy is tea of sweet fern taken internally and also applied as a wash.

MULCHING A REMEDY FOR CURCULIO.

Dr. Ward:—I have found that my pears, where the ground was thoroughly mulched with salt hay, are almost entirely free from stings of curculio, and I would suggest that this remedy should receive a trial from our fruit growers.

Mr. Robinson:—I suspect that the effect is to be attributed to the salt in the hay.

Dr. Ward:—That may be. But I think any one who will try the experiment will find good effects from the mulching enough to pay for the trouble and expense, even if it should not prevent the depredations of the curculio. If you cover hard-frodden ground with straw three or four inches deep, and let it lie through the summer, it is surprising how light the soil will become. Then it keeps the ground moist and prevents the growth of weeds. I am satisfied that we do not fully appreciate the beneficial effects of mulching, especially under trees. Efficient mulching requires two or three tons of straw to the acre, and for economy I use the same straw repeatedly. In order to get manure upon the ground in the fall, I rake off the straw; and, to prevent it from rotting during the winter, I put it up in small stacks.

HEDGES OF OSAGE ORANGE.

Mr. Quinn:—I never was more gratified in my life than by a recent visit to the farm of Mr. Bell, in Monmouth county, N. J., in seeing his hedges of Osage orange. He has his farm completely fenced with these hedges, from two to eight years old. All that are five years old and upward are completely impassable by man, beast or bird. I was very much surprised at their success.

Mr. Robinson:—And there is another thing that would surprise Mr. Quinn quite as much. If we should have a cold night, with the thermometer 20 or 30 degrees below zero, these hedges would be utterly destroyed, so that there would not be a vestige remaining. This has been repeatedly experienced on the Western prairies.

Dr. Ward:—I have had hedges of the Osage orange growing since 1850, and have never known them to be injured by cold, except the extreme ends of the limbs. My latitude is about the same as that of Monmouth county—the latitude of this city. I have tried a great many things for hedges, and have come to the conclusion that the best for a fence is the Osage orange, while for ornament I decidedly give the preference to the Norway spruce.

Notes on Sundry Topics.

To the Editor of THE CANADA FARMER.

SM,—I beg to be permitted to make a few remarks in explanation and in continuation of some published heretofore.

HEDGE ROWS.—First, about the white willow, as a fence-plant. The lengthy communication from Ohio confirms my opinion that though this willow may make a hedge, it will hardly make a fence. To make a fence which unruly cattle or pigs cannot push through, requires some plant which throws out thorns or lateral shoots, which, by plashing down occasionally, become the more strong and efficient. I don't believe the willow can be made to do this by any mode of culture; and why should we attempt it here, where, in every "bush," there are plants at hand perfectly suitable? There are thousands of such thorn-plants to be had about the Cemetery and Castle Frank. It is a native thorn, and a hedge made from it can be seen at any time at the residence of Mr. Baldwin, at Mashquotah. Then the buckthorn can easily be had. The hornbeam and the beech make excellent fences. I have seen scores of miles of fence made of those materials in the West of England, which no animal can get through. There are miles and miles of these impervious fences at and near Quebec. But, above all plants we have here, and it thrives here in competent hands, is the hedge-row thorn plant of the old country. In the garden in front of the residence of Mr. Samuel Sherwood are a number of thorn trees covered with the beautiful "hair" so well known to old countrymen. These have grown to a height of 20 feet, but, of course, could have been kept down by proper means. On the Kingston road, just beyond the tollgate, there is, or was some years ago, a beautiful thorn hedge. You have promised to devote some space to hedge-rows, or I would not have said so much. The "ungarmented" truth of the matter is, that our farmers are too lazy and too short-sighted to give this subject the attention it deserves. Probably, in nine cases out of ten, the present generation of farmers have never seen a hedge-row. Let them employ an old country, newly-arrived laborer, and they will soon get instructed.

ENTOMOLOGY.—The Field mentions the recent capture of the larvæ of a very rare insect, the "Acroneuria

atni." Can any of my brethren of the Entomological Society inform me if we have any such insect on this continent?

DOMESTIC RABBITS.—I have been often surprised at seeing so few of the domestic rabbits of the old country bred here. They must of course be bred in butches. Old country people would gladly buy them; indeed they find a ready sale now in our markets at 50c. a couple. It is a singular fact that in Leacenhall Market, while the wild rabbits sell at 8d. to 1s. a couple, the domestic rabbit sells at 1s. to 1s. 10d!!

THE CANADIAN RABBIT.—Much caution must be used as to the season at which this rabbit is eaten. A friend of mine in this city lately had some wild rabbits sent to him. Every member of the family, including a dog, who partook of them, was taken violently ill with purging, vomiting and swollen faces.

FERRETS.—I was glad to see a box of ferrets at the Exhibition. In a country where rats exist by myriads, in town and country, the breeding of these should be encouraged.

THE WATER-WITCH.—I entirely believe in the wonderful property of the hazel-wand as a means for discovering water and minerals. I have seen it used successfully in the West of England, under circumstances which precluded any suspicion of imposture. More hereafter.

NATURAL HISTORY SPECIMENS.—The New Zealand Government has sent home 600 specimens of the natural history of the colony, comprising 130 species of butterflies and moths of exquisite beauty and rarity. Canada could do the same, if properly represented at home. We have butterflies, moths and birds, of equally exquisite beauty, in both Provinces, as yet unknown to English collectors.

PISCICULTURE.—I observe my remarks on the cultivation of Brook Trout have evoked an answer from T. H. L. S., of Saugeen, about salmon breeding in the lower lakes of Upper Canada. I cannot believe that this can succeed, as the salmon must go to the salt water, about 1,000 miles below. The gentry of Scotland let their salmon fisheries at enormous rentals but the full advantage is returned to the public in the shape of cheap and wholesome food.—so much so that the best salmon has been selling in the metropolis of England at three pence per lb. the present year!

H. P. H.

Toronto, Oct. 20, 1864.

Bush Farming on a Small Scale.

The following is an extract from a letter from a settler in the Township of Dysart, to the Secretary of the Canadian Land and Emigration Company, dated Haliburton, Co. Peterboro', October 7, 1864:—

"Let me note a fact that, though personal, may not be uninteresting. My lot consists of 40 acres, costing \$10. I entered on it in May. I contracted to have 2½ acres cleared and fenced, at \$16 per acre. The clearing commenced on May 5, and was finished by June 5; cost \$38. I went to work and got it planted with potatoes, oats, Indian corn, turnips and barley; finished in two weeks. I have to-day gone over my ground, and find the following results:—I have from 100 to 120 bushels potatoes, worth say \$50; 100 bushels turnips (splendid), worth \$12. The oats I have sold standing for \$20 (such a crop has not been seen anywhere in the front—the stalks six feet high.) The barley failed, owing to drought, and a thin, poor crop—just enough to keep my poultry through the winter. The Indian corn very good, worth perhaps \$6. Here then we have

Potatoes.....	\$50	Cost of land.....	\$40
Turnips.....	12	Clearing.....	38
Oats.....	20		
Corn.....	6		
	<hr/>		<hr/>
	\$88		\$78

Thus my crop the first year is more than enough to pay for clearing and the purchase of the freehold of my entire lot. I have likewise raised melons, pumpkins, and have a fine crop of grass growing with the turnips that next year will make excellent pasture. I have likewise kept my house in vegetables since August 1st, and have lots of cabbages and peas for feeding pigs. To-day I have gathered green peas, quite good, and have had them constantly in the house for the last two months. The drought of last summer, which you know has been unparalleled for thirty years, injured my crop in some degree, chiefly by making it very late; but I have every cause to be thankful for so bountiful a harvest, gathered on so small a piece of clearing, for out of the 2½ acres must be taken the space on which my house and outbuildings stand. This will give you some idea of what may be done here. The natural fertility of the soil is alone to have the credit, for I am a very indifferent farmer."

Crops and Prices the Present Season.

BARLEY, in Sept. last, brought an average of 88c. per bushel of 48 lbs., in Toronto, equal to \$1 10 per 60 lbs., whilst the best white wheat only brought 90c. per 60 lbs., showing a difference in favour of barley, weight for weight, of 20c.; and, as compared with spring wheat, the difference was 10c. more. Since that time wheat has risen and barley fallen a little, but the difference still is fully 10c. in favour of barley as compared with fall wheat, and 20c. as compared with spring wheat. This shows a most unusual advantage for the cultivation of barley; but if farmers generally were to sow all barley, and little or no wheat, the relative prices would very probably change.

Now it is estimated by those most conversant with the grain trade that the crop of barley in the two Canadas, this year, is about six millions of bushels, of which five millions will go to the States. This, at the estimated net return of only 80c. in gold, would be a very sensible relief to our mercantile and financial interests.

It will thus be seen that in this year, which is generally deemed a dull one, the barley interest is remarkably prosperous; and we may add, that no other kind of grain is very depressed. Wheat is bringing about an average price. Peas and oats are higher than usual. Wool and butter have brought high prices, and there is no domestic interest suffering severely, except the lumber trade, though this is an important one.

A merchant from the townships informs us that there is a great deal of money coming in there from the States, for butter and other produce, and the crops have been generally good. He sees no cause for complaint this season.

If we turn from home products to the import trade, we find no overstocks of any kind to speak of, except, perhaps, teas and dry goods, and of these, the overstocks are confined to Montreal, and are mostly in hands that will not sacrifice much, being able to hold for another year.—*Montreal Witness.*

"PEOPLE may say what they will about country air being so good for 'em," said Mrs. Partington, "and how they fat up on it; for my part, I think it is owing to the vittles. Air may do for armoniles and other reptiles that live upon it. But I know that men must have something more substantialler."

CAST-IRON SUGAR PANS.—Wm. W. Horton gives in the *Rural New Yorker* the following description of his cast-iron pans for the manufacture of maple sugar:—"My pan is three by six feet square, six inches deep at the edge, and near seven inches in the middle; it will hold forty gallons and boil. Thickness of sides five-sixteenths on top, and one-half an inch at the bottom; bottom five-eighths thick. Think if I were to get any more, would have two; three by four each, and set one higher than the other on the same arch, and let sap run from one into the other while boiling, or of such size as would suit the bush I was fitting up for."

KEEP A NOTE BOOK.—To all our readers we say, keep a note book, and when you visit any gardens where there are collections of choice shrubs, roses, &c., get the true name of any kind which you particularly admire, and desire to procure another season, and write it down in your note book. Write down not only the name as given you, but also the general character of the plant, the colour of flower, &c. Do the same whenever you visit an exhibition of horticultural products; then from your note book you will be enabled, in the fall or next spring, to make an order of purchase knowingly for just such plants and fruits as you want. There will be no trusting to books or nurserymen, for you order what you know you desire.—*Ohio Farmer.*

TO KEEP TIRES ON WHEELS.—Hear what a practical man says on this subject:—"I ironed a waggon some years ago, for my own use, and before putting on the tires I filled the felloes with linseed oil: and the tires have worn out and were never loose. I ironed a buggy for my own use seven years ago, and the tires are now as tight as when put on. My method of filling the felloes with oil is as follows: I use a long cast iron oil heater, made for the purpose; the oil is brought to a boiling heat, the wheel is placed on a stick, so as to hang in the oil, each felloe an hour, for a common sized felloe. The timber should be dry, as green timber will not take oil. Care should be taken that the oil be not made hotter than a boiling heat, in order that the timber be not burnt. Timber filled with oil is not susceptible to water, and the timber is much more durable. I was amused some years ago when I told a blacksmith how to keep tires tight on wheels, by his telling me it was a profitable business to tighten tires, and the waggon maker will say it is profitable to him to make and repair wheels—but what will the farmer, who supports the wheelwright and smith, say?"—*Maine Farmer.*

TAMING FISH.—A little girl residing near a pond in Massachusetts, has succeeded in taming some of the fish, by throwing crumbs of bread, crackers, etc., into the water. The species called perch seem to be most tractable and docile. One of them often takes the end of her finger in his mouth, while another will glide gently into her hand and turn on one side, and so remain, apparently reposing, till raised quite to the surface. The little girl walks out on a plank, sustained a few inches above the water, and before she reaches the end of the plank, the fish may be seen darting rapidly towards their feeding ground. The larger ones, especially, are disposed to drive off the smaller ones, but she keeps order among them by means of a stick with a sewing needle attached to the end of it, and when one picks a quarrel he gets a stab and is off at once.—*Scientific American.*

THE COST OF NEW PLANTS.—It is something fearful to contemplate the price these plants cost. I do not mean the guinea and a-half you gave for that new *Medinilla*, nor even the £20 you gave for that splendid mass of a new orchid; no, I mean the price in men's lives. It is worth while to think, as for the first time you contemplate a plant which has just gained the gold medal, what the man had to go through who sent it home to increase your pleasure and mine. He stood face to face with death for months—for years, perhaps; with death in all its most ferrible forms. He could, it may be, count his attacks of fever by the score like Livingstone, and calmly write home to his friends that he was just recovering from his forty-eighth attack. He may have been in peril from wild beasts of all descriptions, and dependent for the supply of his daily wants upon natives, scarcely, if at all, less ferocious than the wild animals. His home was a hut built with a few branches in the depths of a primeval forest; or he swung his hammock between two trees, and slept there, with the sky for the only roof that covered him. What he found to live upon we had better not inquire. One collector told me he was obliged for weeks to strain every drop of water he drank through the only fragment of a shirt he had left. You may safely set these men down as "total abstainers," if you expand the meaning of the term so as to include not only those who drink no intoxicating beverage, but who also abstain totally from all the so-called comforts of life. Perhaps the greatest comfort one living in a foreign land can enjoy is to receive a letter and a newspaper from home; but Sir Rowland Hill's emissaries do not traverse the districts into which the botanical collector has to penetrate, and so even this pleasure is denied him. Very many botanical collectors have died far away from any civilized spot; a long list of these victims could be given, their only monument being the plants they introduced.—*Hibberd's Gardener's Magazine.*

SALMON BREEDING IN AUSTRALIA.—The Melbourne correspondent of the *Times* writes:—"Our great salmon-hatching experiment is proceeding most prosperously. The bulk of the late consignment of ova, per Norfolk, are forwarded to Tasmania. Breeding ponds according to the newest piscicultural lights, have been there prepared for the precious charge, and, by last advices, many young salmon had burst from the eggs, and many thousand more were expected. The trout ova, also were doing equally well. Small as is our own portion of this enterprise, it is not the less interesting. It is conducted by our Acclimatisation Society, and an ice-making factory at North Melbourne is the scene of operations. A sort of inclined plane of pans, half filled with gravel, is so placed as to allow a continuous stream of water from melting ice to ripple over each pan, in which, spread upon the gravel, lie the ova. These ova are about the size of small peas, and are of a pale rose colour. Some nine or ten of them have died each day, but about ten days ago, among the births appeared the first salmon in Australia. The *Argus* had a leader upon the illustrious young stranger. How he looked, how he struggled and wriggled—not nearly so long as a fingernail, with the adherent torn ovum still hanging about him—and how he went to sleep as deep as he could plunge into the gravel, were all faithfully described. Day by day bulletins issued, announcing how he was getting on, until one irreverent and sceptical fellow ventured to doubt whether he was a salmon at all, impudently insinuating that the proprietor of the ice-works had slipped a tadpole into one of the pans to hoax the President of the Acclimatisation Society, and asserting, that time would yet show the first Australian salmon to have four legs. Since this scandalous assertion, however, some 150 or 160 other metamorphoses from eggs to fish have taken place; all are healthy and strong, and (as is the nature of the creature), are gradually absorbing the appendant ova which once contained them. The first thing a salmon parr does after he breaks from his prison is to eat it."

Address delivered at the late Provincial Exhibition by the retiring President, Col. James Johnson.

It has hitherto been the custom that the President of this Association, at the conclusion of his term of office, should deliver an address. In conformity with this custom, I have prepared a few remarks, although I am fully sensible how imperfect they are likely to prove.

In reviewing his position, the first consideration which presents itself to the notice of the farmer is his crops; and seldom, I believe, has there been a year when they appeared to be in greater jeopardy than during the past summer. The long continuance of hot, dry weather seemed to threaten them with destruction; but we have reason to thank the Almighty Ruler of events that, after all, the yield will be much greater than was anticipated, although, probably, taking all the various productions of the field into account, it is likely to prove somewhat below the average.

When we survey our country, with its population quietly engaged in the cultivation of their lands, or in commercial and manufacturing pursuits—with all their energies occupied in augmenting the material wealth of their country, and undisturbed within its area by the desolation of strife—we have the more reason to return thanks to God that we have been so mercifully spared, while the neighbouring States are afflicted with that most terrible calamity, an intestine war. To the American people, our neighbours, with whom we desire to cultivate friendly relations, we fully extend our sympathy, and hope that the day will soon come when this dark cloud shall have passed away, and Heaven-born Peace resume its sway uninterruptedly over the whole continent.

We often hear and read of a community comprising different interests—thus, the agricultural interest, the manufacturing interest, and the mercantile interest are frequently referred to as being separate, distinct, and even antagonistic; they are, however, in every country, greatly dependent one upon the other. But in no country in the world is it more apparent than in Canada that neither merchant, nor manufacturer, nor professional man, can prosper except the tillers of the soil prosper also. All our wealth must be extracted from the soil, and from the soil alone.

The traveller passing over England or Belgium, or portions of the New England States, and beholding the immensity of the manufacturing and commercial operations of these countries, may be led to suppose that the cultivation of the soil is only a subordinate vocation. But it is impossible to travel through Upper Canada and form this opinion.

If we require another million of dollars to meet increased taxation, or for any other object, from whence can we get it? We may borrow it. We may mortgage our property, and get it by loan. But this is a temporary expedient, for there is but one way in which we can get the money, so as to call it our own, and that is to get it out of the soil. We must gather from old mother earth another million of bushels of wheat, or an equivalent of agricultural productions, or we cannot call the money our own.

We have striven to keep pace with our republican neighbours in the march of internal improvements. We have built extensive canals and long lines of railways. There are some people who think we have been lavish in our expenditure; whether such has been the case or not it is no part of my duty, nor is it my inclination now to inquire. It is sufficient for my purpose that this expenditure has been made, and, as the necessary consequence, a debt incurred which seems to count up to \$60,000,000.

This appears a large sum, and so it is. But when we read of the expenditure of the neighbouring Federal Government, which is probably not less than \$2,000,000 a-day, we perceive that, taking into consideration that the population of the Canadas num-

bers 2,500,000 against their 20,000,000—that is to say, one-eighth part of it—eight months at their rate of expenditure would create to the Canadas a debt of \$60,000,000, being the amount of our debt incurred during a long series of years, and by the construction of all their improvements which have so essentially aided our advance in civilization, national welfare and importance.

I am aware that I am here digressing from the object which I have particularly in view in this address; but having referred to our Provincial debt and its magnitude in proportion to the expenditure of the Federal Government, I would add that this is but a portion of their expenditure, for if \$2,000,000 were spent in digging huge pits in the earth one day and filling them up the next, every one would stand aghast at such a useless expenditure. But that would bear no proportion in point of mischief to the expenditure of the same sum in killing and maiming hundreds of thousands of those who ought to be national producers, and in destroying railroads and canals, and spreading desolation over the land. Such is war. Pardon me for this digression, and allow me to revert to our Provincial debt, to remark that we can only extinguish that debt by extracting from the soil its equivalent in agricultural productions. In fact, our very existence as individuals as well as our national existence depends upon our success in the art of filling the soil.

This is the vocation, then, in which the great mass of our population must necessarily be engaged. We have an extensive country compared with many lands. No portion of it is yet densely populated, much yet is very thinly settled, and over vast portions of it the primeval forest yet remains undisturbed. This, then, is the natural channel into which the chief current of our industry must for many years continue to flow; and if it be true, as one of philosophic mind has remarked, that the man who makes two blades of grass grow where one only had grown before, deserves well of his fellow-men, what scope is there here for honourable repute, in bringing still more extensive regions of the wilderness into subjection for the wants of civilized man, and in introducing a superior system of agriculture! Long may we confine our warfare to the subjugation of the forest, the reclaiming of morasses, and the conquering of the millions of acres which lie before us.

It is obvious that in a new country like Canada, the culture immediately succeeding the clearing of the forest must be very rude. After the axe has done its part, and the timber has been burned, the stumps and roots still remain a serious impediment in the way of good culture for several years to come, as there is little scope for good ploughing, or for the use of superior implements.

Immediately after the disappearance of the forest, we have the rude age of Canadian agriculture; but soon the impediments disappear, and a fair field is presented for the adoption and practice of a better system of tillage, and the farmer, if he desires to be up to the mark, must look well to his ploughing, drainage, and manuring, to a system of rotation of crops, the improvement of his stock, the erection of convenient buildings and the application of an economical system of labour.

It would be very extraordinary, indeed, if the Legislature of Canada had omitted to foster the development of the agricultural art. Accordingly we find that about thirty years ago, aid was given to agricultural societies which were formed first in districts, followed up by county and township societies, and these were the nurseries for the Provincial Association, of which this is our Nineteenth Annual Exhibition.

The benefit of these societies cannot fail to be very great. Take a country exhibition for instance. It brings together the most energetic and intelligent farmers and mechanics. They meet each other in friendly rivalry, and learn wherein they are behind in their vocations, and wherein they are not, and are stimulated to make further progress. But in the Provincial Exhibitions, where the working agriculturists, manufacturers, and mechanics of the Province are congregated, there is, of course, a still larger field for improvement, and by means of this extensive competition and intercommunication, hints are struck out and improvements suggested, which cannot fail to be valuable. It fell to the lot of Hamilton to have the Exhibition this year within its limits, and I am sure all who, like myself, are strangers to that city, will endorse my statement when I say that our best thanks are due to the people of the city and the County of Wentworth for the exertions which they have made

to render the Exhibition successful. With respect to the Exhibition itself, it is, upon the whole, admitted to be one of the best, if not the very best which the Association has ever had.

These Exhibitions eminently serve to assist us in forming an estimate of our own circumstances and conditions in an agricultural point of view, and I have to request your attention while I venture a few remarks on this subject. In the first place, what is the agricultural capacity of Upper Canada? What is she capable of doing? These are questions in which we are all deeply concerned, and they are questions the answers to which may influence many of those who intend to emigrate from the mother country, in selecting Canada as their future home or not. This is not, I conceive, a fit occasion for entering into long statements, and I shall, therefore, endeavour to confine my remarks on this head to a small compass. Referring then to the last census taken in 1861, we find that the average yield of the following articles of produce per acre throughout Upper Canada, was as follows:—

	Acres.	Bushels.	Bus.	Average per acre.
Fall wheat	431,729	7,537,651	17½	
Spring wheat	951,637	17,002,774	17½	
Barley	118,940	2,821,962	23½	
Rye	70,376	973,181	13½	
Pease	460,595	9,601,396	20½	
Oats	678,337	21,220,874	31	
Buckwheat	74,565	1,248,673	16½	
Indian corn	79,918	2,256,290	28	
Potatoes	137,266	15,335,920	111½	
Turnips	73,409	18,206,959	248	
Carrots		1,905,598		
Mangel wurtzel	1,523	546,971	359	
Beans		49,143		
Clover, timothy & other seeds		61,818		
Maple sugar, lbs		6,970,605		
Hay, tons		2,705,2		
Hops, lbs		247,052		
Cider, gallons		1,567,831		
Wool, lbs		3,659,766		
Fulled cloth, yards		497,520		
Flannel, yards		1,595,514		
Flax and hemp, lbs		1,225,934		
Linen, yards		37,055		
Bulls, oxen and steers		99,605		
Milch cows		451,640		
Calves and heifers		461,083	1,015,328	
Horses		277,258		
Colts and fillies		100,423	377,681	
Sheep		1,170,225		
Pigs		776,001	1,916,226	
Value of live stock		\$53,227,486		
Butter, lbs		26,828,264		
Cheese		2,687,172		
Pork in bbls, 200 lbs		336,748		
Beef		67,508		

Those persons desirous to look into the productions and averages of the different counties in Upper Canada, I would refer to an article in THE WEEKLY GLOBE, of the 12th August last, which appears to have been compiled with great care and much labour.

I regret that I am not able to give the average yield of the same description of produce in other British colonies; but I believe Upper Canada in this respect has no need to fear a comparison with any other colony of the Crown.

When a comparison is instituted also between the respective productions of Upper Canada and the neighbouring States, the result is certainly not to our disadvantage; thus the population of the State of Indiana, by the returns of 1860, was almost identical in number with that of Upper Canada, the former containing 1,350,428, and the latter 1,396,031.

Now, the following statement will show the relative produce in the following leading articles:—

	INDIANA.	UPPER CANADA.
	Bushels.	Bushels.
Wheat	15,219,120	Fall 7,537,651 Spring 17,082,774
Rye	400,226	973,181
Indian Corn	69,641,591	2,256,290
Oats	5,028,755	21,220,874
Buckwheat	367,797	1,248,673
Pease and Beans	77,706	9,601,396
Barley	296,374	2,821,962
Potatoes	3,873,130	15,323,920
	94,904,699	78,068,685
	78,068,685	
	16,836,014	

This return shows the aggregate produce of the above articles as follows:—

	Bushels.
Upper Canada	78,068,685
Indiana	94,904,699
Giving a preponderance of 16,836,014 bushels to Indiana.	

But it is to be remembered that Indian corn, in which the produce of Indiana is so much greater in quantity, is much used as food for cattle, while we use large quantities of carrots, mangold, and turnips for that purpose; and from the last census I find that in 1860 we raised in Upper Canada,

	Bushels.
Turnips	18,206,659
Carrots.....	1,505,698
Mangold.....	646,971

Total

20,659,528
Unfortunately I have not the means of knowing what the yield of Indiana was in these roots, but I have reason to believe that the preponderance of Upper Canada in this respect would quite make up the difference. But Indiana is one of the far-famed Western States, confessedly having great advantages over the great majority of the grain-growing States, in soil and climate.

Comparing the productions of Upper Canada with the State of New York, Pennsylvania, Michigan, or Ohio, in proportion to their respective populations, we find the result decidedly in favour of Upper Canada:—

	N. Y.	Penn.	Michigan.	Ohio.
Wheat	8,681,100	13,015,231	8,318,185	14,532,570
Rye	4,786,905	5,474,792	491,197	656,846
Ind corn 20,061,018	28,196,821	12,152,110	70,637,140	
Oats	35,175,188	29,387,119	4,073,038	15,479,133
Barley	1,186,667	570,716	395,914	1,691,082
B. Wheat 5,126,305	5,572,026	603,435	3,527,005	
Peas & Vns 1,609,331	183,101	182,195	105,249	
Potatoes. 26,417,389	11,687,418	5,231,783	8,572,673	

10,073,936 94,077,287 31,355,917 115,291,198

POPULATION.

New York.....	3,860,735
Pennsylvania.....	2,503,115
Michigan.....	719,150
Ohio.....	2,339,511
Upper Canada.....	1,396,091
State of New York.....	27½ bushels per head.
" Pennsylvania.....	32½ " "
" Michigan.....	41½ " "
" Ohio.....	49½ " "
Upper Canada.....	55½ " "

In examining these returns, we find that no State produced as much wheat as Upper Canada; with respect to pease, Upper Canada produced 9,611,396 bushels, being twice or nearly three times the quantity produced in the twenty-one grain-growing States put together. But in the article of Indian corn, Upper Canada is decidedly below any one of these States in production—even the State of Maine, with its rigorous climate and poor soil, compared with its population is far before us in this respect, showing that with respect to the estimation in which pease and Indian corn are held in Upper Canada and in these States, there is a very marked and striking difference; whether we or they are right in this respect may be a subject of controversy. It is, however, well understood in Canada that there is scarcely in the whole catalogue a more valuable article of produce than pease. I make this comparison in no spirit of vain exultation but simply to show that, tried by this test, the agricultural capacity of Upper Canada exhibits a favourable comparison.

The most valuable crop produced in Upper Canada, as shown by the census returns, is undoubtedly wheat. Although it is likely to continue a staple production in Upper Canada, it is doubtful whether we have not sacrificed too much, and are not sacrificing too much, in its production. It is asserted by competent judges that in the State of New York much of the land which formerly yielded good crops of wheat, has, by over-cropping, been rendered incapable of producing it any longer. And this is the invariable result to which the same vicious system, if practiced in Canada, would lead.

It is gratifying to be able to state that the growth of wheat after wheat, or wheat after oats, and so on, is becoming a thing of rare occurrence in Upper Canada, and as intelligence advances and farmers really become aware of what their own interests require, such a practice will become unknown. There are great difficulties in the way of the adoption of the system of rotation of crops practiced in Britain, principally owing to the expense of having the usual proportions of land under drill husbandry. But all are beginning to recognise the necessity of varying according to some system the productions of the field; and it is certainly gratifying to witness the great increase which is rapidly being made in the

growing of turnips, mangel wurtzel, beets, carrots, and other roots. I believe the growth of these roots must form the basis on which a good, sound system of husbandry must stand. For by this means, conjoined with the erection of comfortable buildings for cattle and sheep, the severity of the winters is comparatively little felt by the animals, which are thus kept in good condition, and made to furnish large supplies of valuable manure. Let me look at a farm with substantial comfortable buildings for cattle, where they have their liberal allowance of roots during the winter, and compare the appearance of the stock and the whole aspect of the place with the scene, which yet too commonly appears, when the poor cattle have to struggle through the long severe winter with scarcely any shelter and with little food except straw, and mark the difference. In this first instance, we see the thriving farmer and the thriving cattle, and in the latter, we are almost sure to find a thrifless, impoverished man, and half-starved, miserable cattle. Speaking of buildings, it may not be out of place to remark, that while great improvements in the style and appearance of our farmers' residences are perceptible, yet there are too many instances where neither internal comfort nor the external appearance seems to be regarded. I have heard it remarked that a small house and a large barn denote thrift; and this may be, indeed. My own opinion is, if both cannot be accomplished at once, let the barn, &c., be first erected, and the house and other comforts for the farmer will the sooner follow and make all complete; but without sacrificing too much to the residence, it is not difficult, be it ever so small or so humble, not only to make it comfortable but to give it an appearance of comfort, and to make it a pleasant object in the landscape to look upon. Every one, I think, will acknowledge that a fence or a hedge around the homestead, sufficient to keep off pigs and cattle, with a few trees for shade, and a few shrubs, with a moderate allowance for a few flowers, are things not of difficult attainment, and present a most gratifying appearance. Yet in how many instances in this country have we to regret that a little more pains is not bestowed on this object?

Increased efforts have been made during the past year to extend the culture of flax. There can be no doubt that much of our soil is well fitted for it, and it promises to prove a valuable acquisition to the produce of the field. It may be well, perhaps, to bear in mind that the present high prices are probably attributable to the interruption in the supply of American cotton, and that the same high prices can scarcely be looked for should that supply be resumed. Nevertheless the prices are likely to be sufficiently remunerative to make the culture of flax well worthy the attention of the Canadian farmer. In connection with the introduction of the growth of flax, or any other production, without desiring to cast any aspersions upon the means taken by our Government to introduce the choice varieties of seeds, plants, &c., I will quote from the Report of the Commissioner of Agriculture for the United States, for the year 1863, to show how carefully the agricultural interests are looked after in that country:—

"Pursuing what I regarded as the most judicious and satisfactory course, I imported from England, France, Belgium, Russia, Sweden and other foreign countries, several hundred bushels of choice wheat and other cereal grains, and several thousand dollars' worth of the most valuable seeds for field and grain culture, including a large collection of such flower-seeds as were deemed suitable for our country. These, with an assortment of the choicest varieties of the most desirable grains and vegetables grown in our country, were spread over the country with a lavish hand.

"The whole number of the packages of seeds, cereals, &c., distributed, is about 1,200,000; of these, over half a million were sent or given directly to those applying for them. About 300,000 were distributed to members of Congress, and over 300,000 to Agricultural Societies; about 40,000 were quart packages of wheat and other cereal grains; about 200,000 garden and flower seeds; about 120,000 tobacco seed, and the remainder cotton, flax, &c.

"The anxiety of the people of the country to obtain the seed and the satisfaction manifested at their reception, and the result of the productions, are sufficient attestation that the distribution of valuable seeds by the department is a recognized custom and duty which may not be abandoned, the complaints of captious and interested parties to the contrary notwithstanding. And I hazard nothing in saying that in no department of this Government does the expenditure of a like sum confer upon so large a proportion of the people anything like the same amount of pleasure and substantial enjoyment."

Time will not permit, nor have I the inclination, to attempt a review of the different departments of agriculture. My purpose is simply to offer a few remarks of a general character. I cannot, however,

omit one which is every year coming more prominently before the attention of the Canada farmer—I refer to draining. The spring of this year, at least, in the western portion of Upper Canada, was remarkable for the continuous rains which fell until nearly the last of May, and which was succeeded by the drought which threatened the total destruction of our crops. Those farmers, however, who had their lands drained found the great advantage of being able to get in their crops at a time when the occupants of similar soils, undrained, were not able to work them at all; and it was remarkable how slight the effects of the drought were on the drained land compared to the other. Indeed, the testimony in favour of draining, both in the mother country and elsewhere, is so decisive that scarcely anything can be added to it. Of course, the expense is the great obstacle in the way of its general adoption, and this, it must be admitted, is no trifling impediment.

The best material for permanent draining is undoubtedly stones or tiles; but no farmer should be deterred if such are not within his reach—good substitutes can be found by laying poles or even fence rails in the trenches, and covering over carefully with bark, or with tough green sod; they are said to be effective, and to last for many years. This system is within the reach of all, costing nothing more than the labour.

With respect to the prospects of the farmer, it cannot be denied that the cessation of the market for our live stock which previously existed in the United States has caused a serious loss to us. The cause of this cessation appears to be the disarrangement of the currency consequent upon the value of their inflated paper money as compared to ours. But we have the satisfaction of knowing that sooner or later, but inevitably, their currency must also revert to a metallic basis, when this hindrance to our inter-communication in trade will cease. I heard persons in Canada draw unfavourable comparisons between the United States and Canada, because, as they allege, money was so much more plentiful in the former than in the latter country. But it is to be remembered that we, too, might have money in abundance by issuing paper promises to pay, or that by mortgaging our lands we might live in luxury out of the proceeds of the mortgage so long as this lasted, but the day for payment must come some time.

So far as legislative action is concerned, I have no remarkable expedient to further our agricultural progress. It may, indeed, be efficiently promoted by means for procuring and disbursing the best descriptions of seeds and roots, the dissemination of the best information relative to agricultural improvements, without pressing unfairly upon any other portion of the community, but it is mainly upon our own exertions we must rely. As those amongst us engaged in manufacturing or commercial enterprise must rely upon their skill and industry for success, so must we, who have the soil for a work-shop, mainly rely upon the same qualities; and it is much better to know this and to feel it, than to depend upon assistance which cannot be rendered, and the expectation of which can only cause disappointment. We have a soil which, averaged, will compare with that of most portions of the earth, and in spite of the asperities of the climate, in productions we are not inferior to the most favoured portions of America. Why should we not go on and prosper?

I should ill discharge my duty on this occasion, were I to neglect stating that his Excellency the Governor-General intended to have honoured the Exhibition by his presence, but by a letter which I have received from his Excellency's Secretary, his Excellency regrets that important public business would prevent his attendance. The interest which his Excellency feels in this and similar Exhibitions has already become well known to the public of the Province, and, I believe, duly appreciated.

I desire, also, to tender my best thanks to those gentlemen from the United States and others, for their kindness in visiting our Exhibition, and aiding us with their valuable services as judges in important classes, and otherwise assisting us in carrying out the objects of our Exhibition.

I have only to add, in conclusion, that I desire to express my sense of the kindness and attention which I have experienced from office-bearers, and all with whom I have been brought in contact during my term of office; and my hope is, that the object which the institution has in view, namely, the advancement of the agricultural and manufacturing prosperity of Canada, may every year be more and more promoted.

At the conclusion of the address it was moved by the Hon. Mr. Burnham, seconded by Mr. J. C. Rykert, and

Resolved,—That the thanks of the Association be given to the President, Col. James Johnson, for his very eloquent and able address, and that he be requested to furnish a copy to the Press for publication.

The Prize List.

HORSES.

CLASS I.—BLOOD HORSES.—16 ENTRIES.

JUDGES.—Dr. Morton, Bradford; John Peters, London; Charles DeBlaquiere, Woodstock. Best thorough-bred stallion, Edward Arkland, Oshawa, "Kennett"..... \$10 2nd do, J. and J. White, Palermo. "Touchstone,"..... 25 Best three year old stallion, John Dew, York township, "Whalebone,"..... 22 Best two years old stallion, J. and J. White, Palermo..... 14 Best yearling colt, J. and J. White, Palermo..... 8 Best thorough-bred stallion of any age, E. Arkland, Oshawa, "Kennett,"..... Diploma. Best three years old filly, J. and J. White, Palermo..... 18 2nd do, John Thompson, Mt. Vernon..... 11 Best two years old filly, J. Shedden, Toronto..... 11 Best yearling filly, J. and J. White, Palermo..... 8 2nd do, John Shedden, Toronto..... 6 Best mare and foal, or satisfactory evidence that a foal has been raised this season, J. and J. White, Palermo..... 22 2nd do, John Thompson, Mt. Vernon..... 14

CLASS II.—AGRICULTURAL HORSES.—103 ENTRIES.

JUDGES.—Capt. Tyrwhitt, Bradford; Jacob Young, York. G. R.; William Paulin, Woodstock. Best stallion for agricultural purposes, John Summerfelt, Markham..... \$40 2nd do, Thomas Teasdale, Chinguacousy..... 25 3rd do, Thomas Gowland, York, Co. Haldimand..... 12 Best 3 years old stallion, George S. Alton, Nelson..... 22 2nd do, Robert Gardner, Toronto township..... 14 3rd do, E. Foster, Vaughan..... 7 Best 2 years old stallion, Robert Clarke, York Mills..... 14 2nd do, George Scott, Scarborough..... 10 3rd do, J. Terryberry, Barton..... 5 Best yearling colt, Joseph McBride, Toronto township..... 6 2nd do, William Cleland, Glanford..... 6 3rd do, P. R. Wright, Hamilton township..... 4 Best agricultural stallion, any age, John Summerfelt, Markham..... Diploma. Best 3 years old filly, John Long, East Flamboro..... 18 2nd do, Samuel Smith, Glanford..... 11 Best 2 years old filly, Leonard Salmon, Binbrook..... 11 2nd do, H. Sylvester, Darlington..... 9 3rd do, John Stalker, Clarke..... 5 Best yearling filly, K. McKenzie, Puslinch..... 8 2nd do, J. Terryberry, Barton..... 6 Best brood mare and foal, or evidence that a foal has been raised, Leonard Salmon, Binbrook..... 22 2nd do, John L. Horning, West Flamboro..... 14 3rd do, James H. Preston, Hornby..... 6 Best span matched farm or team geldings or mares, in harness, John Clarke, Chinguacousy..... 20 2nd do, Adam Dodge, West Oxford..... 15 3rd do, Stephen Moffatt, North Dumfries..... 10

CLASS III. ROAD OR CARRIAGE HORSES.—274 ENTRIES.

JUDGES.—James Armstrong, Yarmouth; J. P. Bull, York township; John King, St. Thomas. Best roadster or carriage stallion, 4 years old and upwards, J. Eaton Davis, Richmond Hill..... \$40 2nd do, John Levitt, York township..... 25 3rd do, D. Robertson, Esquesing..... 12 Best do, 3 years old, Hugh Skimin, Brantford..... 22 2nd do, Samuel Fulton, Southwold..... 14 3rd do, Jacob Smuck, Glanford..... 7 Best do, 2 years old, Robert Dochstader, Oneida..... 14 2nd do, James Preston, Hornby..... 10 3rd do, Joseph Paisley, Caledon..... 5 Best yearling colt, J. Fraser, Morven..... 8 2nd do, T. Strip, Belmont..... 6 3rd do, Isaiah Kern, Barton..... 4 Best stallion, of any age, J. Eaton Davis, Richmond Hill..... Diploma. Best French Canadian stallion, Wm. Dogherly, Toronto township..... 30 2nd do, Robert Armstrong, Scarborough..... 20 3rd do, W. Miller, Markham..... 10 Best 3 years old roadster filly, A. Patterson, Paris..... 18 2nd do, Thomas Little, East Flamboro..... 11 3rd do, F. Graham, Thurlow..... 7

Best 2 years old filly, F. Shaw, Ancaster..... 14 2nd do, John Hartley, Nelson..... 9 3rd do, R. Carey, Millgrove..... 5 Best yearling filly, F. Graham, Thurlow..... 8 Best brood mare and foal, or evidence of having raised a foal, do..... 22 2nd do, R. Irwin, Townsend..... 14 3rd do, W. A. Smith, Hamilton..... 6 Best pair of matched carriage horses (geldings or mares), George Campbell, Brantford..... 20 2nd do, D. Lester, Oakland..... 15 3rd do, David Tisdale, Simcoe..... 10 Best single carriage horse (gelding or mare), in harness, John Shedden, Toronto..... 10 2nd do, E. N. Orr, Georgetown..... 8 3rd do, E. F. Long, Simcoe..... 6 Best saddle-horse (gelding or mare), Wm. Hendrie, Hamilton..... 10 2nd do, A. Smith, Toronto..... 8 3rd do, G. Metherell, East Flamboro..... 6 Extra—one pair mule, Wm. Henry, Rockton, Pair of ponies, David Brown, Brantford..... 4

CLASS IV.—HEAVY DRAUGHT HORSES.—(42 ENTRIES.)

JUDGES.—John Hunter, Goderich; Alex. Alcorn, Cobourg; James Laurie, Scarborough. Best heavy draught stallion, Simon Beattie, Markham; imported from England 1864..... \$120 2nd do, Andrew Harvie, Beverley..... 25 3rd do, Robert Copeland, Hamilton township..... 12 Best three-year-old Stallion, Joseph Thompson, Whitty; imported from Scotland, 1861..... 66 Best two-year-old stallion, T. Wilkinson, Glanford..... 14 2nd do, Thos. Herod, Onondaga..... 10 3rd do, Geo. Scott, Scarborough..... 5 Best yearling colt, Wm. Gerrie, Ancaster..... 8 Best draught stallion, any age, Simon Beattie, Markham; imported "Lord Clyde"..... Diploma. Best three-year-old filly, Wm. Thompson, East Whitty..... 18 2nd do, Thomas Blanchard, Nelson..... 11 Best two-year-old filly, Wm. Gerrie, Ancaster..... 14 2nd do, Robert Smith, Glanford..... 9 Best brood mare and foal, or evidence that the foal has been raised, Joseph Johnston, Burford..... 22 2nd do, Augustus Duchanan, South Dumfries..... 14 3rd do, D. McConnachie, Orono..... 6 Best span of draught horses, geldings or mares, John Shedden, Toronto..... 20 2nd do, Robert Smith, Glanford..... 15 3rd do, Alex. Chapman, Ancaster..... 10

EXTRA PRIZE.

Heavy draught mare in foal, P. R. Wright, Cobourg..... 10

CATTLE.

CLASS V.—DEERHAMS.—(145 ENTRIES.)

JUDGES.—James O. Sheldon, N. Y. State; Thomas Richardson, do.; Birdett Loomis, Connecticut; Jno. R. Page, N. Y. State; Thos. A. Milne, Markham. Best bull 4 years old and upwards, Christie & Cowan, Brantford, "Oxford Lad,"..... \$36 2nd do, G. M. Coulter, Ohio, U. S., "Challenger,"..... 24 3rd do, Jas. Vine, St. Catharines, "Canadian Punch,"..... 16 Best 3 years old bull, John Snell, Edmonton, "Baron Solway,"..... 32 2nd do, Stephen Moffatt, Galt, "Nichol,"..... 20 3rd do, L. Linderman, Eramosa, "Friar John 4th,"..... 12 Best 2 years old bull, George Black, Nissouri, "Robin Hood,"..... 24 2nd do, John Mitchell, Stamford, "Grantham,"..... 16 3rd do, T. H. Brettell, Delaware, "Deerfoot,"..... 8 Best 1 year old bull, J. & J. White, Trafalgar, "Butterfly 2nd;" imported from U. S., 1864,..... 40 2nd do, Thomas Stock, E. Flamboro, "Balthayock,"..... 12 3rd do, Joseph Gardner, Toronto township, "Napoleon,"..... 7 Best bull under 1 year, Wm. A. Cooley, Ancaster, "Earnest,"..... 16 2nd do, George Black, Nissouri, "Ottawa,"..... 10 3rd do, F. W. Stone, Guelph, "Crown Prince,"..... 6 Best bull any age, J. & J. White, Milton, "Butterfly 2nd,"..... Diploma. Best Cow, D. Christie, Brantford, "Queen of Athelstane;" imported from Britain 1864..... 40 2nd do, do "Placida,"..... 12 3rd do, Thos. Stock, E. Flamboro, "Lizzie,"..... 8 Best 3 year old cow, D. Christie, Brantford, "Pride of Athelstane;" imported from Britain 1864..... 37 2nd do, F. W. Stone, Guelph, "Maid of Honor,"..... 10 3rd do, Gilbert Davis, Wellington Square, "Phoebe,"..... 6 Best 2 year old heifer, F. W. Stone, Guelph, "Marchioness of Gloster,"..... 12 2nd do, Jesse Sage, Brantford, "Princess Alice,"..... 8 3rd do, A. Hogge, Guelph, "Minnie,"..... 5

Best 1 year old heifer, D. Christie, Brantford, "Princess of Athelstane;" imported from Britain 1864..... 20 2nd do, John Snell, Edmonton, "Mary Gray,"..... 6 3rd do, F. W. Stone, Guelph, "Isabella 10th,"..... 4 Best heifer calf under 1 year, F. W. Stone, Guelph, "Cambridge 4th,"..... 6 2nd do, John Snell, Edmonton, "Alexandra,"..... 4 3rd do, do "Alice,"..... 2 REMARKS BY JUDGES.—In submitting the Report, your Committee would express their high commendation of the entire Short-horn class, the representation throughout being very strong, and affording the most gratifying evidence of the enterprise and judgment with which the management of the herds has been conducted. Your Committee would recommend that animals for exhibition should be halter-broken; also, that the provisions of suitable rings would greatly facilitate their operations. At the New York State Exhibitions it is customary to award the premiums before the animals leave the ground, and that Society find that course gives universal satisfaction.

CLASS VI.—DEVONS.—(152 ENTRIES.)

JUDGES.—John Dew, York township; John P. Wheler, Scarborough; W. Balkwill, London. Best bull 4 years old and upwards, John Pincombe, "Prince of Wales,"..... \$36 2nd do, C. Courtice, Darlington, "Conqueror,"..... 24 3rd do, Geo. Mann, Bowmanville, "Devonian,"..... 10 Best three-year-old bull, John Pincombe, London, "Young Prince,"..... 32 2nd do, Sam. Peters, senr., London..... 20 3rd do, C. Courtice, Darlington, "Garibaldi,"..... 12 Best two-year-old bull, Reuben Spooner, Kingston township, "Governor,"..... 24 2nd do, Wm. Duck, Port Credit, "Wm. Rufus,"..... 16 3rd do, John Pincombe, London, "Young Frank,"..... 8 Best one-year-old bull, Sam. Peters, senr., London, "Havelock,"..... 12 2nd do, John Pincombe, London, "Young Duke,"..... 7 3rd do, J. Moore, Etobicoke, "Young Duke,"..... 7 Best bull under one year, Thomas Guy, Oshawa, "Earl Russell,"..... 16 2nd do, Jno. Pincombe, London, "Thompson,"..... 10 3rd do, Daniel Tye, Wilmot, "Geo. Elgin,"..... 6 Best bull any age, Jno. Pincombe, London, Diploma. Best cow, John Pincombe, London, "Picture,"..... 20 2nd do, C. Courtice, Darlington, "Graceful,"..... 12 3rd do, C. Courtice, Darlington, "Stately,"..... 8 Best three-year-old cow, Jno. Pincombe, London, "Lady Thompson,"..... 16 2nd do, John Pincombe, London, "Cherry,"..... 10 3rd do, John Pincombe, London, "Young Curly,"..... 6 Best two-year-old heifer, Thomas Guy, Oshawa, "Maud,"..... 12 2nd do, Sam. Peters, senr., London..... 8 3rd do, C. Courtice, Darlington, "Florence Nightingale,"..... 5 Best one-year-old heifer, C. Courtice, Darlington, "Queen of Cleverton,"..... 10 2nd do, John Pincombe, London, "Young Dairy Maid,"..... 6 3rd do, C. Courtice, Darlington, "Beauty,"..... 4 Best heifer calf under one year, John Pincombe, London..... 6 2nd do, John Moore, Etobicoke..... 4 3rd do, Reuben Spooner, Kingston township..... 2 The judges report that this was the best show of Devons they have ever seen in Canada.

CLASS VII.—HEREFORDS.—25 ENTRIES.

JUDGES.—Edward Jones, Stamford; George Murton, Guelph; Jas. H. Bessey, St. Catharines; John Salkeld, Goderich. Best bull, four years old and upwards, F. W. Stone, Guelph, "Patriot,"..... \$36 Best three year old bull, F. W. Stone, Guelph, "Sailor,"..... 32 Best two year old bull, do "Guelp"..... 24 Best one year old bull, do "Commodore,"..... 20 2nd do, do "Guelp Baron,"..... 12 Best bull under 1 year, do "Prince,"..... 16 2nd do, do "Canadian Chief,"..... 10 3rd do, do "Captain,"..... 6 Best bull, any age, do "Guelp"..... Diploma. Best cow..... do "Gentle,"..... 22 2nd do..... do "Verberna,"..... 12 3rd do..... do "Hebe,"..... 8 Best 3 years old cow..... do "Graceful,"..... 16 2nd do..... do "Gentle 2nd,"..... 10 3rd do..... do "Peach,"..... 6 Best 2 years old heifer, do "Baroness 2nd,"..... 12 2nd do, do "Necklace,"..... 8 3rd do, do "Gentle 3rd,"..... 3 Best 1 year old heifer, do "Hebe 2nd,"..... 10 2nd do, do "Venus,"..... 6 Best h. calf under 1 yr, do "Vesta 3rd,"..... 6 2nd do..... do "Gentle 4th,"..... 4 3rd do..... do "Graceful 2nd,"..... 2

REMARK.—The Judges in making their report, beg leave to say they consider the animals shown to be of a first class description, but are sorry to see so little competition.

CLASS VIII.—AYRSHIRES.—69 ENTRIES.

Table listing Ayrshire entries with judges' names (Joseph Rowat, Nilestown; Wm. Smith, Frankville; John Crawford, Scarborough) and various prize categories like 'Best bull, four years old and upwards'.

CLASS IX.—GALLOWAYS.—71 ENTRIES.

Table listing Galloway entries with judges' names (William Woods, Hastings; John Dunlop, Woodstock; George Bell, Vaughan) and prize categories like 'Best bull, 4 years old and upwards'.

CLASS X.—ANGUS CATTLE.—12 ENTRIES.

None exhibited.

CLASS XI.—GRADE CATTLE.—54 ENTRIES.

Table listing Grade Cattle entries with judges' names (Andrew Gilmour, Nilestown; Richard Allen, Darlington; Hon. O. Blake, Simcoe, Co. Norfolk) and prize categories like 'Best grade cow, Thomas Stock, East Flamboro'.

Table listing entries for 'Best two years old heifer' and 'Best one year old heifer' with judges' names (Wm. Miller, jun., Pickering; John Smith, W. Flamboro; S. Barber, Guelph).

THE FERGUS CUP.

Best grade heifer, not more than two years old on January 1, 1864, the produce of a pure bred Durham bull, having a recorded pedigree, and a cow of any breed, not more than one remove from thorough-bred. Prize presented by Hon. A. J. Fergusson-Blair. Wm. Miller, jun., Pickering. Silver Cup.

The Judges of this class say: "We are happy to find that the entries in the various sections are far superior to any of previous years."

CLASS XII.—FAT AND WORKING CATTLE, ANY BREED.—29 ENTRIES.

Table listing Fat and Working Cattle entries with judges' names (Philip Armstrong, Toronto; Richard Best, Niagara; Richard Tooley, Belmont) and prize categories like 'Best fat ox or steer'.

SHEEP, LONG-WOOLLED.

CLASS XIII.—LEICESTERS.—241 ENTRIES.

Table listing Leicester entries with judges' names (James B. Ireland, Waterdown; R. A. Hartley, Chingacousy; James Craig, London; A. Sanderson, Grantham) and prize categories like 'Best ram, two shears and over'.

CLASS XIV.—COTSWOLDS.—(99 ENTRIES.)

Table listing Cotswolds entries with judges' names (John Carter, Markham; Thomas Arkell, Puslinch; Jos. Kirby, Esquesing) and prize categories like 'Best ram, two shears and over'.

CLASS XV.—LONG-WOOLLED SHEEP OF OTHER PURE BREEDS NOT LEICESTERS OR COTSWOLDS.—82 ENTRIES.

JUDGES.—John Pety, Kippen, Huron; Henry Jennings, Markham; John Pratt, Cobourg.

Table listing Long-woolled Sheep of other pure breeds entries with prize categories like 'Best ram, two shears and over'.

CLASS XVI.—SOUTH DOWNS.—(115 ENTRIES.)

JUDGES.—Nathan Choate, Port Hope; G. S. Burrell, Cramah; Thos. Allen, Whitby.

Table listing South Downs entries with prize categories like 'Best ram, two shears and over'.

CLASS XVII.—SHROPSHIRE DOWNS.—(18 ENTRIES.)

JUDGES.—The same as for Class 16.

Table listing Shropshire Downs entries with prize categories like 'Best ram, two shears and over'.

REMARKS OF JUDGES.—As this is a comparatively new class, there could not have been expected a large number of entries, but although few, we were much pleased to see such good specimens as those of Mr. G. Miller, more particularly the newly imported stock, which are very superior.

CLASS XVIII.—CHEVIOTS.—29 ENTRIES.

JUDGES.—Henry Wade, Port Hope; W. S. Losce, Norwich; James Cowan, Galt.

Table listing Cheviots entries with prize categories like 'Best ram two shears and over'.

CLASS XIX.—MEDIUM-WOOLLED SHEEP OF OTHER PURE BREEDS, NOT SOUTH DOWNS, SHROPSHIRE OR CHEVIOTS.—25 ENTRIES.

JUDGES.—The same as for Class 18.

Table listing Medium-woolled sheep of other pure breeds entries with prize categories like 'Best ram two shears and over'.

Best ram lamb, A. Spencer, Whitby.....	7
2nd do C. Edmondson, Brantford.....	3
Best two ewes, two shears and over, H. Spencer, Whitby.....	15
2nd do H. Spencer, Whitby.....	7
Best two shearling ewes, Geo. Miller, Markham.....	11
2nd do C. Edmondson, Brantford.....	7
Best two ewe lambs, H. Spencer, Whitby.....	5
2nd do H. Baker, Woodhouse.....	3

SHEEP, FINE-WOOLLED.

CLASS XX.—SPANISH MERINOES.—74 ENTRIES.

JUDGES.—James H. Peck, Ameliasburgh; John Randall, Paris; C. B. Jennings, Niagara Co., N. Y.

Best ram, two shears and over, E. Bevier, Hamilton, imported from U. S., 1864.....	\$30
2nd do L. Lapierre, Paris.....	7
Best shearling ram, L. Lapierre, Paris.....	11
2nd do E. Bevier, Hamilton.....	10
Best ram lamb, L. Lapierre, Paris.....	7
2nd do L. Lapierre, Paris.....	3
Best two ewes, two shears and over, L. Lapierre, Paris.....	15
2nd do L. Lapierre, Paris.....	7
Best two shearling ewes, Edward Arkland, Oshawa.....	11
2nd do L. Lapierre, Paris.....	5
Best two ewe lambs, L. Lapierre, Paris.....	7
2nd do Edward Arkland, Oshawa.....	3

CLASS XXI.—FRENCH MERINOES.—67 ENTRIES.

JUDGES.—The same as for Class 20.

Best ram, two shears and over, Alexander Young, Barton.....	\$15
2nd do L. Lapierre, Paris.....	7
Best shearling ram, Alexander Young, Barton.....	11
2nd do A. Binkley, Glanford.....	5
Best ram lamb, Jacob Rymal, Barton.....	7
2nd do J. Terryberry, Barton.....	3
Best two ewes, two shears and over, Jacob Rymal, Barton.....	15
2nd do Alexander Young, Barton.....	7
Best two shearling ewes, Jacob Rymal, Barton.....	11
2nd do A. Binkley, Glanford.....	5
Best two ewe lambs, Thomas Shaw, junr., Glanford.....	7
2nd do J. Terryberry, Barton.....	3

CLASS XXII.—FINE-WOOLLED SHEEP OF OTHER PURE BREEDS, NOT SPANISH OR FRENCH MERINOES.—18 ENTRIES.

JUDGES.—The same as for Class 20.

Best ram, two shears and over, J. Homeyer, Prussia, Sibbald agent, Brockville.....	15
2nd do J. Homeyer, Prussia.....	7
Best ram lamb, David Messenger, Cooksville.....	7
2nd do David Messenger, Cooksville.....	3
Best two ewes, two shears and over, David Messenger, Cooksville, imported from U. S. since last Show.....	22 50
Best two shearling ewes, David Messenger, Cooksville, imported from U. S. since last Show.....	16 50
Best two ewe lambs, David Messenger, Cooksville.....	7

REMARKS BY JUDGES.—We, the Judges in classes No. 20, 21 and 22, are pleased to notice the rapid improvement made since last Exhibition in the above classes of fine-woolled sheep, and the spirited competition in the different classes, there being no fewer than 74 entries in class 20, 67 entries in class 21, and 18 entries in class 22, many of which were on exhibition, and were of superior quality, which is a convincing proof of how fast fine-woolled are growing into general favour in Canada.

The Judges regret to mention that the exhibitors in class 20 (Spanish merino), in some cases, endeavour to practice deception, by salting, smearing, or blacking, which, in some cases, is so bungled in the operation that the appearance of the wool to a certain extent is destroyed, and they strongly condemn such a practice on the part of the competitors.

The Judges express their approbation of the classification of fine-woolled sheep this year, and cannot too strongly urge upon the Board the necessity of appointing Judges in future of practical experience in fine-woolled sheep, in order that justice may be done to competitors.

CLASS XXIII.—FAT SHEEP.—37 ENTRIES.

JUDGES.—The same as for fat cattle.

Best two fat wethers, F. W. Stone, Guelph.....	\$12
2nd do John Micheltree, London township.....	8
3rd do do do do do do do.....	4
Best two fat ewes, F. W. Stone, Guelph.....	12
2nd do J. Davidson, Paris.....	8
3rd do John Snell, Edmonton.....	4

PIGS—LARGE BREEDS.

CLASS XXIV.—YORKSHIRES.—(27 ENTRIES.)

JUDGES.—W. Kerr, Stamford; W. Unwin, St. Mary's; S. D. Farley, Belleville.

Best boar, one year and over, James Ford, Trafalgar.....	\$15
2nd do John P. Wheeler, Scarborough.....	10
3rd do John Long, East Flamboro.....	6

Best boar under one year, C. A. Jordison, Sidney, imported from England 1864.....	30
2nd do Samuel H. Reeves, Derry West.....	6
3rd do C. A. Jordison, Sidney.....	4
Best breeding sow one year and over, H. Thomas, Brantford.....	10
2nd do John P. Wheeler, Scarborough.....	7
3rd do C. A. Jordison, Sidney.....	4
Best sow under one year old, Samuel H. Reeves, Derry West.....	5
2nd do Samuel H. Reeves, Derry West.....	4
3rd do John P. Wheeler, Scarborough.....	3

CLASS XXV.—LARGE BERSHIRE.—(20 ENTRIES.)

JUDGES.—The same as for Class 24.

Best boar one year and over, A. G. Thompson, Morton.....	\$15
2nd do S. Baker, Woodhouse.....	10
Best boar under one year, A. G. Thompson, Morton.....	10
2nd do S. Baker, Woodhouse.....	6
3rd James Main, Trafalgar.....	4
Best breeding sow one year and over, S. Baker, Woodhouse.....	10
2nd do A. G. Thompson, Morton.....	7
3rd do Peter Grant, Hamilton.....	4
Best sow under one year old, A. G. Thompson, Morton.....	5
2nd do S. Baker, Woodhouse.....	4
3rd do James Main, Trafalgar.....	3

CLASS XXVI.—ALL OTHER LARGE BREEDS.—(15 ENTRIES.)

JUDGES.—The same as for Class 24.

Best boar one year and over, Wm. Henry, Rockton.....	\$15
2nd do Peter Grant, Hamilton.....	10
3rd do N. Bethell, Grantham.....	6
Best boar under one year, Geo. Roach, Hamilton, imported from U. S., 1864.....	20
2nd do N. Bethell, Grantham.....	6
3rd do James Main, Trafalgar.....	4
Best breeding sow one year and over, Jas. Ford, Trafalgar.....	10
2nd do John P. Wheeler, Scarborough.....	7
3rd do Peter Grant, Hamilton.....	4
Best sow under one year old, Geo. Roach, Hamilton; imported from U. S., 1864.....	7 1/2
2nd do James Main, Trafalgar.....	4
3rd do James Ford, Trafalgar.....	3

PIGS—SMALL BREEDS.

CLASS XXVII.—SUFFOLKS.—(14 ENTRIES.)

JUDGES.—John Cullis, Cobourg; Wm. Crowder, Morpeth; Malcolm McArthur, Coldsprings.

Best boar one year and over, J. Zimmerman, Nelson.....	\$15
2nd do D. R. McKenney, Milton.....	10
3rd do Matthew Stewart, Caistor.....	6
Best boar under one year, Jas. Main, Trafalgar.....	10
Best breeding sow one year and over, Jas. Main, Trafalgar.....	10
Best sow under one year old, Jas. Main, Trafalgar.....	5
2nd do do do do do.....	4

CLASS XXVIII.—IMPROVED BERSHIRE.—(47 ENTRIES.)

JUDGES.—The same as for Class 27.

Best boar, one year and over, Hugh Dempsey, Downie.....	\$15
2nd do Thos. Dunbar, Ancaster.....	10
3rd do Richard Vyse, Trafalgar.....	6
Best boar, under one year, Hugh Dempsey, Downie.....	10
2nd do Wm. Eagleson, Hamilton.....	6
3rd do Alex. Gerrie, Ancaster.....	4
Best breeding sow, one year and over, G. Roach, Hamilton.....	10
2nd do A. G. Thompson, Morton.....	7
3rd do Gilbert Davis, Wellington Square.....	4
Best sow, under one year old, Geo. Roach, Hamilton.....	5
2nd do Wm. Eagleson, Hamilton township.....	4
3rd do A. G. Thompson, Morton.....	3

CLASS XXIX.—ALL OTHER SMALL BREEDS.—30 ENTRIES.

JUDGES.—The same as for Class 27.

Best boar one year and over, James Main, Trafalgar.....	\$15
2nd do Thomas McCrae, Guelph.....	10
3rd do Wm. A. Cooley, Ancaster.....	6
Best boar under one year, James Vine, St. Catharines.....	10
2nd do James Main, Trafalgar.....	6
3rd do James Cowan, Waterloo.....	4
Best breeding sow, one year and over, G. Roach, Hamilton, imported from U. S., 1864.....	15
2nd do Thomas McCrae, Guelph.....	7
3rd do Samuel Orr, Hamilton.....	4
Best sow under one year, George Roach, Hamilton, imported from U. S., 1864.....	7 1/2
2nd James Main, Trafalgar.....	4
3rd do George Roach, Hamilton.....	3

CLASS XXX.—POULTRY, &c.—286 ENTRIES.

JUDGES.—R. J. Harding, Kingston; James Vano, Niagara; John Symmonds, London.

Best pair white dorkings, Samuel Peters, London.....	4
2nd do do do do do do do.....	2
Best pair of coloured do, William Cowing, Grantham.....	4
2nd do F. W. Stone, Guelph.....	2
Best pair of black Polands, Charles Lee, Hamilton.....	4
2nd do do John Ker, Stamford.....	2
Best pair of golden Polands, Samuel Peters, London.....	4
2nd do do John Bogue, London.....	2
Best pair of silver Polands, John Bogue, London.....	4
2nd do do John Bogue, London.....	2
Best pair of game fowls, (black breasted and other red,) Wm. Hendrie, Hamilton.....	4
2nd do do Samuel Peters, London.....	2
Best pair of game fowls, any other variety, Sam'l Peters, London.....	4
2nd do do John Riggs, Bronte.....	2
Best pair of Cochins China, or Bramah Pootra fowls, Samuel Peters, London.....	4
2nd do do John Ker, Stamford.....	2
Best pair of Spanish fowls, Samuel Peters, London.....	4
2nd do do John Bogue, London.....	2
Best pair of golden pencilled Hamburgs, W. O. M. King, London.....	4
2nd do do do do do do do.....	2
Best pair of silver pencilled Hamburgs, Samuel Peters, London.....	4
2nd do do do do do do do.....	2
Best pair of silver spangled Hamburgs, S. Peters, London.....	4
2nd do do John Bogue, London.....	2
Best pair of Sebright bantams, Wm. Cowing, Grantham.....	2
2nd do do John Ker, Stamford.....	1
Best pair of white bantams, Wm. Cowing Grantham.....	2
2nd do do John Bogue, London.....	1
Best pair of turkeys, (white), John Bogue, London.....	4
2nd do do John Ker, Stamford.....	2
Best pair of turkeys, (coloured), Samuel Peters, London.....	4
2nd do do do do do do do.....	2
Best pair of wild turkeys, Samuel Peters, London.....	4
2nd do do John Bogue, London.....	2
Best pair of geese, (white), John Cullis, Cambridge.....	4
2nd do do Samuel Peters, London.....	2
Best pair of geese, (coloured,) John Biggar, Palermo.....	4
2nd do do Wm. Nicolls, Hamilton.....	2
Best pair Chinese geese, Samuel Peters, London.....	4
2nd do do Francis Wyatt, East Flamboro.....	2
Best pair of Muscovy ducks, Wm. Cowing, Grantham.....	4
2nd do do John Ker, Stamford.....	2
Best pair of Aylesbury ducks, John Bogue, London.....	4
2nd do do Samuel Peters, London.....	2
Best pair of Rouen ducks, Sam. Peters, London.....	4
2nd do do do do do do do.....	2
Best pair of any other kind of ducks, Samuel Peters, London.....	4
2nd do do John Bogue, London.....	2
Best pair of Guinea fowl, John Ker, Stamford.....	4
2nd do do Wm. Cowing, Grantham.....	2
Best pair of pea fowls, Jeremiah Lyons, West Flamboro.....	4
2nd do do Jeremiah Lyons, W. Flamboro.....	2
Best collection of pigeons, Wm. McDonald, Hamilton.....	4
2nd do do Wm. Riddell, Hamilton.....	2
Best lot of poultry in one pen, and owned by the exhibitor, distinct from other entries, Wm. Cowing, Grantham.....	6
Best pair of rabbits, Alex. Henderson, Hamilton.....	4
2nd do do Henry Ingelhart, Nelson.....	2

CHICKENS OF 1864.

Best pair of dorkings of either variety, F. W. Stone, Guelph.....	4
2nd do Sam. Peters, London.....	2
Best pair of game of any variety, Sam. Peters, London.....	4
2nd do Sam. Peters, London.....	2
Best pair of Spanish, Sam. Peters, London.....	4
2nd do John Bogue, London.....	2
Best pair of Cochins China of any variety, Sam. Peters, London.....	4

AGRICULTURAL PRODUCTIONS.

CLASS XXXI.—GRAINS, SMALL FIELD SEEDS, HOIS, &c.—591 ENTRIES.

JUDGES.—E. A. McNaughton, Newcastle; Alex. Kerr, London; E. C. Fisher, Etobicoke; J. G. Worts, Toronto; Geo. Walker, London.

The Canada Company's prize for the best 25 bushels of fall wheat, the produce of Canada West, being

the growth of the year 1864. Each sample must be of one distinct variety, pure and unmixed, of the best quality for seed, and not to be tested merely by weight. The prize to be awarded to the actual grower only of the wheat, which is to be given up to and become the property of the Association, for distribution to the county societies for seed, J. Hamilton, W. Flamboro' \$100

2nd do by the Association, T. McEvers, Cobourg 40
3rd do Thos. Edgars, N. Dumfries. 20

Best two bushels of white winter wheat, William Hall, N. Dumfries. 10
2nd do J. Hamilton, W. Flamboro' 8
3rd do John H. Rutherford, N. Dumfries. 6
4th do T. McEvers, Cobourg 4

Best two bushels of red winter wheat, I. H. Anderson, W. Flamboro' 10
2nd do D. Lockwood, Sidney. 8
3rd do S. Smith, Glanford. 6
4th do Sam. Stone, Ancaster. 4

Best two bushels of Fife spring wheat, Thomas Guy, Oshawa. 8
2nd do T. McEvers, Cobourg 6
3rd do John Mitchell, Mono. 4
4th John L. Courtice, Pickering. 2

Best two bushels Club spring wheat, T. McEvers, Cobourg. 8
2nd do Thos. Cullis, Hamilton Tp. 6
3rd do John Mitchell, Mono. 4
4th do J. Cullis, Cambourne. 2

Best two bushels of barley, (2 rowed) Thomas Gibson, Milliken. 6
2nd do W. Riddell, Cobourg. 4
3rd do P. R. Wright, Cobourg. 2
4th do Wm. Thompson, Whitby, Volume of Transactions. 2

Best two bushels of barley, (6 rowed) Jas. Gibson, Ancaster. 6
2nd do Thomas Dunbar, Ancaster. 4
3rd do S. Smith, Glanford. 2
4th do Charles Tuck, Nelson, vol. Trans. 2

Best two bushels rye, J. D. Lafferty, West Flamboro' 6
2nd do Israel D. Allen, W. Flamboro' 4
3rd do Alex. Patterson, Paris. 2
4th do J. S. Hopkins, W. Flamboro' Trans.

Best two bushels of oats (white), Isaac H. Anderson, W. Flamboro' 6
2nd do John Mitchell, Mono. 4
3rd do W. Riddell, Cobourg. 2
4th do Wm. Cleland, Glanford. Trans.

Best two bushels oats (black), James Carey, W. Flamboro' 6
2nd do J. Rowat, Nilestown. 4
3rd do Thomas Dunbar, Ancaster. 2
4th do P. Bartholomew, Markham. Trans.

Best two bushels of small field peas, Sam. Wood, Etobicoke. 6
2nd do J. Rowat, Nilestown. 4
3rd do I. H. Anderson, W. Flamboro' 2
4th do J. and R. Hunter, Pilkington. Trans.

Best two bushels of large field peas, John Tuck, Guelph. 6
2nd do John Mitchell, Mono. 4
3rd do J. Cullis, Cambourne. 2
4th do J. R. Foster, E. Flamboro' Trans.

Best bushel of horse or tick beans, W. Riddell, Cobourg 6
2nd do Geo. C. Glover, Saltfleet. 4
3rd do H. J. Brown, Niagara. 2
Best two bushels Indian corn in the ear (white), Henry Lutz, Saltfleet. 6
2nd do H. J. Brown, Niagara. 4
3rd do J. R. Pettit, Grimsby. 2
4th do F. Carrie, Niagara. Trans.

Best two bushels Indian corn in the ear (yellow), H. J. Brown, Niagara 6
2nd do K. McKenzie, Puslinch. 4
3rd do Jas. Harvey, Barton. 2
4th do S. J. J. Brown, Niagara. Trans.

Best bushel of timothy seed, Isaac Mills, Flamboro' West. 6
2nd do Coridon Lewis, Derham. 4
3rd do C. P. Carpenter, Binbrook. 2
4th do F. Teneyek, Binbrook. Trans.

Best bushel clover seed, John Smith, Flamboro' West. 6
2nd do Richard Vyse, Trafalgar. 4
3rd do Adolphus Case, Barton. 2
3rd do S. Baker, Woodhouse. Trans.

Best bushel of Alsike clover seed, Thomas Stock, East Flamboro' 6
Best bushel of hemp seed, Geo. Black, Nissouri. 6
Best bushel of flax seed, John Clarke, Chingaucousy. 6
2nd do P. Bartholomew, Markham. 4
3rd do A. Forrester, Nissouri. 2

Best bushel of mustard seed, H. Girouard, Hamilton. 6
2nd do H. Girouard, Hamilton. 4
3rd do R. C. Gill, Cramahc. 2

Best Swedish turnip seed, from transplanted bulbs, not less than 20 lbs., R. C. Gill, Cramahc. 6
2nd do Thomas Stock, East Flamboro' 4
3rd do N. Bethell, Grantham. 2

Best 11 lbs., white Belgian field carrot seed, R. C. Gill, Cramahc. 6
Best 12 lbs. long red mangel wurzel seed, John Pratt, Cobourg 4
2nd do H. Girouard, Hamilton. 6
3rd do Thomas Harris, Barton 2

Best 12 lbs. yellow globe mangel wurzel seed, R. C. Gill, Cramahc. 6
Best bale of hops, not less than 112 lbs., Alexander Russell, London township. 20
2nd do M. A. Abbey, Preston. 12
3rd do William Belton, London township. 8

Best bushel of tares, John Smith, Flamboro' West. 6
2nd do J. Rymal, Barton. 3
3rd do W. Riddell, Cobourg. Trans.

Best bushel of buckwheat, P. Bartholomew, Markham. 4
2nd do James Bishop, Beverley. 2
3rd do Thomas Cullis, Hamilton township. Trans.

Best bushel of Millet, D. Rymal, Barton. 4
2nd do Jeremiah Bishop, Lynden. 2
3rd do Richard Vyse, Trafalgar. Trans.

Best bushel of Hungarian grass seed, J. Moore, Etobicoke. 4
2nd do John Hamilton, West Flamboro' 2

EXTRA ENTRES.
Two bushels spring rye, J. D. Lafferty, W. Flamboro' \$1

CLASS XXXII.—ROOTS, OTHER HOED FIELD CROPS, FLAX, &c.—398 ENTRIES.

JUDGES.—George Roddick, Cobourg; John A. Donaldson, Weston; Richard Bugler, London; William Ledlie, St. Marys; F. Wedemeyer, Hamilton.

Best bushel of pink-eyed potatoes, Alex. Robertson, West Flamboro. 3
2nd do D. Patterson, Beverley. 2
3rd do J. Boyle, Beverley. 1

Best bushel cup potatoes, John Long, East Flamboro' 3
2nd do Alex. Robertson, West Flamboro' 2
3rd do Alex. Gerrie, Ancaster. 1

Best bushel garnet chilis, A. Bond, Storrington. 3
2nd do James Cowan, Galt. 2
3rd do Alexander Gerrie, Ancaster. 1

Best bushel white potatoes, Jacob H. Rymal, West Flamboro. 3
2nd do John Young, Virgil. 2
3rd do J. McMonies, East Flamboro' Trans.

Best bushel red potatoes, L. Taylor, Barton. 3
2nd do Alex. Gerrie, Ancaster. 2
3rd do P. Armstrong, York township. Trans.

Best bushel blue potatoes, Richard Guthrie, P. L. A., Toronto. 3
2nd do R. L. Denison, Dover Court, York 2
3rd do Alex. Robertson, West Flamboro' Trans.

Best bushel of any other sort of potatoes, Geo. Barnes, Hamilton. 3
2nd do W. & W. Burgess, York township. 2
3rd do Adolphus Case, Barton. Trans.

Best collection of field potatoes, a peck of each sort named, James H. Hanning, Puslinch 4
2nd do Richard Guthrie, P. L. A., Toronto. 3
3rd do A. J. Sweezy, Ancaster. 2

Best eight roots Swede turnips, L. Mullock, East Flamboro' 3
2nd do James Anderson, Guelph. 2
3rd do Wm. Freeman, Scotland. 1

Best eight roots white globe turnips, Robt Mayhew, Glanford. 3
2nd do James Cowan, Galt. 2
3rd do Robt. Mayhew, Glanford. Trans.

Best eight Aberdeen yellow turnips, Alexander Robertson, W. Flamboro' 3
2nd do P. Armstrong, York township. 2
3rd do W. & W. Burgess, York township. Trans.

Best 12 roots red carrots, J. S. Walker, Beamsville. 3
2nd do Jas. King, York township. 2
3rd do Jas. Carey, W. Flamboro' 1

Best twelve roots, white or Belgian carrots, Jas. Carey 3
2nd do T. Lottridge, Barton. 3
3rd do Geo. Barnes, Hamilton. 2

Best eight roots mangel wurzel, (long red), T. Lottridge, Barton. 3
2nd do J. Jardine, Saltfleet. 1
3rd do Sam. Sinfeld, Barton. 1

Best eight roots red globe mangel wurzel, R. C. Gill, Cramahc. 3
2nd do Thos. Harris, Barton. 2
3rd do Wm. Benham, Guelph. Trans.

Best eight roots yellow globo mangel wurzel, James Carey, W. Flamboro' 3
2nd do W. & W. Burgess, York township. 2
3rd do Richard Carey, E. Flamboro' 1

Best eight roots long yellow mangel wurzel, Jas. Carey, W. Flamboro' 3
2nd do Richard Carey, E. Flamboro' 2
3rd do W. & W. Burgess, York township. Trans.

Best eight roots of khol rabi, R. Guthrie, P. L. A. Toronto. 3
2nd do Francis Wyatt, E. Flamboro' 2
3rd do E. Bray, Cobourg. 1

Best eight roots of sugar beet, G. Z. Rykert, St. Catharines. 3
2nd do R. Guthrie, Toronto. 2
3rd do John Pratt, Cobourg. 1

Best twelve roots parsnips, Wm. Benham, Guelph 3
2nd do Jas. King, York township. 2
3rd do W. & W. Burgess, York township. Trans.

Best twelve roots of chicory, George Pears, Toronto. 3
2nd do G. J. Miller, Virgil. 2
3rd do R. C. Gill, Cramahc. Trans.

Best two large squashes for cattle, Wm. Horning, E. Flamboro' 3
2nd do J. H. Rymal, W. Flamboro' 2
3rd do R. L. Denison, Dover Court, York. 1

Best two mammoth field pumpkins, Wm. Horning, E. Flamboro. 3
Best four common yellow field do, D. Vandusen, Grimsby. 3
2nd do Jas. Bishop Beverley. 2
3rd do H. Lutz, Saltfleet. Trans.

Best twenty lbs of tobacco leaf, growth of Canada West, A. Bond, Storrington. 3
2nd do D. Shaver, Ancaster. 2
3rd do R. Guthrie, Toronto. Trans.

Best broom corn brush, 28 lbs, A. Kington 3
2nd do H. Crosthwaite, Barton. 2
3rd do Jas. King, York township. Trans.

THE CANADA COMPANY'S PRIZE FOR FLAX.

Best 112 lbs. of flax, scutched, C. Mitchell, Norval 24
2nd do by the Association, J. Rae, Port Stanley 16

REMARKS OF JUDGES.—It is to be regretted that although there were six entries of flax, there were but two exhibitors. This may be accounted for from the fact that parties fitting up new machinery have not had time to prepare samples, and others are engaged taking off the seed before scutching. Small samples of flax and hemp from the Mills of Messrs. Black & Forrester, St. Marys, were highly commendable. Samples of flax from Ireland, exhibited by Mr. Ledlie, of St. Marys, were well deserving of notice.

HORTICULTURAL PRODUCTS.

CLASS XXXIII.—FRUIT.—491 ENTRIES.

JUDGES.—Thos. Briggs, Kingston; John Gray, Toronto; J. C. Small, Toronto.

Nurserymen and Market Gardeners' List, Canada only. Competitors can receive a premium only in one section of each fruit.

Best 30 varieties apples, correctly named, six of each, Geo. Leslie, Toronto. \$8
2nd do John P. Williams, Hallowell. 6

Best 20 varieties apples, correctly named, six of each, Woolverton & Smith, Grimsby. 5
Best 15 varieties apples, correctly named, six of each, John Freed, Hamilton. 3

Best 20 varieties pears, correctly named, three of each, Bruce & Murray, Hamilton. 8
2nd do Geo. Leslie, Toronto. 6
Commended, D. W. Beadle, St. Catharines.

Best 10 varieties do., correctly named, three of each, John P. Williams, Hallowell. 5
2nd do Woolverton & Smith, Grimsby. 3
Commended, John Freed, Hamilton.

Best collection grapes, grown in open air, two bunches each, named, Chas. Arnold, Paris. 5
2nd do W. H. Read, Port Dalhousie. 4

Best 6 varieties of black grapes, grown in open air, three bunches each, correctly named, W. H. Read, Port Dalhousie. 4
2nd do Bruce & Murray, Hamilton. 3

Best 6 varieties of grapes any other colour, grown in open air, three bunches each, correctly named, Bruce & Murray, Hamilton. 4

Best display of fruit, the growth of exhibitor, distinct from other entries, three specimens of each sort, named, Geo. Leslie, Toronto. 8
2nd do D. W. Beadle, St. Catharines. 6
3rd do C. Arnold, Paris. 4

Farmers' and Amateurs' List, Canada only. Nurserymen and market gardeners excluded. Competitors can receive only one premium in each section.

Best 20 varieties apples, correctly named, six of each, R. B. Werden, Picton. 6
2nd do R. R. Gage, Hamilton. 4
3rd do T. King, Hamilton. 2

Best 10 varieties apples, correctly named, six of each. S. J. J. Brown, Niagara	4
2nd do G. J. Miller, Virgil	3
3rd Wm. Chapman, Barton	2
Best 4 varieties dessert apples, correctly named, six of each. R. Warren, Niagara	3
2nd do W. Nicolls, Hamilton	2
3rd do Wm. Chapman, Barton	Trans
Best 4 varieties cooking apples, correctly named, six of each. Geo. Murray, York	3
2nd do Sam Wood, Islington	2
3rd do Geo. Murray, Yorkville	Trans
Best 21 apples, fall dessert, of one variety, correctly named, G. Z. Rykert, St. Catharines	2
2nd do J. H. Springle, Montreal	1 1/2
3rd do Wm. Chapman, Barton	1
Best 12 apples, fall cooking, of one variety, correctly named, Jas Wildes, Hamilton	2
2nd do Samuel Wood, Etobicoke	1 1/2
3rd do J. H. Springle, Montreal	1
Best 12 apples, winter dessert, of one variety, correctly named, Jno. Wilson, Toronto township	2
2nd do W. Nicolls, Hamilton	1 1/2
3rd James Harvey, Barton	1
Best 12 apples, winter cooking, of one variety, correctly named, James Harvey, Barton	2
2nd do E. C. Fearnside, Hamilton	1 1/2
3rd do H. Smith, E. Flamboro	1
Best 8 varieties pears, correctly named, three of each, Thomas Buchanan, Hamilton	5
2nd do C. Meston, Barton	3
3rd do F. Currie, Niagara	2
Best 4 varieties pears, correctly named, three of each, James Heslop, W. Flamboro	5
2nd do F. Currie, Niagara	3
3rd do C. Meston, Barton	Trans
Best 12 fall pears of one variety, Thos. Buchanan, Hamilton	3
2nd do T. King, Hamilton	2
3rd G. J. Miller, Virgil	Trans
Best 12 winter pears, of one variety, F. Currie, Niagara	3
2nd do J. D. Humphreys, Toronto	2
3rd do J. D. Humphreys, Toronto	1
Best collection plums, named, six of each, Wm. Benham, Guelph, 3rd prize	2
Best 12 dessert plums, one variety, correctly named, Geo. Brown, Hamilton	2
2nd do Ja. Bolon, Eramosa	1 1/2
3rd do Wm. Benham, Guelph	Trans
Best 12 cooking plums, one variety correctly named, Wm. Benham, Guelph	2
2nd do Thos. Lottridge, Barton	1 1/2
Best 12 peaches white flesh, one variety, correctly named, grown in open air, S. J. J. Brown, Niagara	2
2nd do Thos. Buchanan, Hamilton	1 1/2
Best collection grapes, grown in open air, J. C. Kilborn, Beamsville	6
2nd do H. M. Switzer, Palermo	4
Best 6 varieties grapes, grown in open air, J. C. Kilborn, Beamsville	4
2nd do H. M. Switzer, Palermo	3
Best 3 bunches do, one variety, correctly named, Charles Howard, Hamilton	3
2nd do D. Fleming, Beamsville	2
3rd do Wm. P. Moore, Hamilton	Trans
<i>General List of Fruits, Canada, open to all.</i>	
Best 12 quinces, G. Z. Rykert, St. Catharines	2
2nd do Thomas Harper, Hamilton	1
Best collection grapes, grown under glass, one bunch each, correctly named, L. Grace and Murray, Hamilton	6
2nd do T. King, Hamilton	4
3rd do C. Meston, Barton	2
Best two bunches black grapes, grown under glass, correctly named, Thomas Buchanan, Hamilton	4
2nd do Jno. Sacerman, Oakville	3
3rd do C. Meston, Barton	2
Best two bunches white grapes, grown under glass, correctly named, C. Meston, Barton	4
2nd do Bruce & Murray, Hamilton	3
3rd do C. Arnold, Paris	2
Best green flesh melon, G. Z. Rykert, St. Catharines	2
2nd do do do	1
3rd do do do	1
Best red or scarlet flesh melon, D. Ewing, Barton	2
2nd do James King, York	1
3rd do water melon, J. Wildes, Hamilton	2
2nd do Sam. Sinfield, Barton	1
<i>Do. or. Pure Wines.</i>	
Best Isabella wine, John Dr. Lann, Clinton, Diploma and	5 1/2
2nd do Geo. Brown, Hamilton	1
Commended—H. Smith, E. Flamboro	.....
Best native Canadian grape wine, J. C. Kilborn, Beamsville, Diploma and	2
2nd do do do	1
Commended—W. W. Kitchen, Grimsby	.....

Best grape wine from any other sort, W. P. Moore, Hamilton, Diploma and	2
2nd do Jacob Binkley, Ancaster	1
Commended—W. W. Kitchen, Grimsby	.....
EXTRA.—For the greatest and finest variety of wines, (16 sorts,) H. Smith, East Flamboro' Diploma and	6
Do for the next best variety, W. W. Kitchen, Grimsby	4
Best currant wine, H. Smith, East Flamboro'	2
2nd do A. P. Farrell, Cayuga	1
Commended—J. C. Kilborn, Beamsville	.....
Best strawberry wine, H. Smith East Flamboro'	2
Best blackberry wine, Mrs. H. J. Lawry, Hamilton	2
Best cider, Mrs. Jeremiah Lyons, West Flamboro' Diploma	.....

EXTRA ENTRIES.

Raspberry jelly, Mrs. Jeremiah Lyons, West Flamboro'	\$ c.
Two citrons, Adam Book, jr., Ancaster	50
Citrons, K. McKenzie, Pushinch	50
Rhubarb wine, W. W. Kitchen, Grimsby	50
Siberian crabs, Thomas Green, L.L.D. Port Nelson	50
Half-dozen bottles jelly, Nancy Hannon, Hamilton	1 00
Gooseberry wine, Agnew P. Farrell, Cayuga	1 00
Rhubarb wine, Agnew P. Farrell, Cayuga	1 00
Two citron melons, Samuel Sinfield, Barton	50
Black cherry wine, W. W. Kitchen, Grimsby	50
Raspberry shrub and two pots jelly, Mrs. H. J. Lawry, Hamilton	1 00
Three jars preserves, Mrs. H. J. Lawry, Hamilton	1 00
Home-made sherry, Jacob Binkley, Ancaster	1 00
Twelve blood peaches, S. J. J. Brown, Niagara	50

DR. BEADLE'S PRIZES.

Special prizes offered by the late Dr. Beadle, of St. Catharines, and to be given by Mr. D. W. Beadle.

To any person not a professional nurseryman, residing in any part of Upper Canada, who shall exhibit the largest collection of really valuable pears, not more than six specimens of each variety, nor less than three varieties in each collection, each variety named, and shall with the entry make the written statement required below: a premium of thirty-five pear trees of suitable size for planting, grown either upon the pear or quince stock, at the option of the exhibitor, and of such kinds as the exhibitor may select from the list of pear trees cultivated at these nurseries.—R. B. Warden, Picton.

To the exhibitor of the second best collection, upon the same conditions, a premium of fifteen pear trees, with like privilege of choice to exhibitor.—James Heslop, West Flamboro'.

The exhibitor of the third best collection, upon the same conditions and with the same privileges, a premium of five pear trees.—Flint Currie, Niagara.

CLASS XXXIV.—GARDEN VEGETABLES.—165 ENTRIES.

JUDGES.—George Baxter, Kingston; A. Barker, Markham; John S. Walker, Beamsville.

Best twelve roots of sal-ify, Thomas Buchanan, Hamilton	\$2
2nd do William Benham, Guelph	1 1/2
3rd do Thomas Harris, Barton	1
Best 3 heads broccoli, R. Guthrie, Toronto	2
2nd do R. C. Gill, Cramahc	1 1/2
3rd do Samuel Sinfield, Barton	1
Best 3 heads cauliflower, James King, York	2
2nd do John Freed, Hamilton	1 1/2
3rd do James Wildes, Hamilton	1
Best 3 heads cabbage (summer), E. Bray, Cobourg	2
2nd do James King, York	1 1/2
3rd do R. C. Gill, Cramahc	1
Best 3 heads cabbage (winter), Jno. Freed, Hamilton	2
2nd do James King, York	1 1/2
3rd do Rev. Thomas Green, L.L.D., Port Nelson	1
Best 4 sorts winter cabbage, including savoy, 1 of each sort, W. & W. Burgess, York	3
2nd do K. Macaulay, Barton	2
3rd do E. C. Fearnside, Hamilton	1
Best 3 heads red cabbage, James King, York	2
2nd do R. Guthrie, Toronto	1 1/2
3rd do G. Z. Rykert, St. Catharines	1
Best 12 carrots for table, long red, T. M. Munn, Paris	2
2nd do James King, York	1 1/2
3rd do K. Macaulay, Barton	1
Best 12 intermediate, or half-long carrots, James King, York	2
2nd do T. M. Munn, Paris	1 1/2
3rd do R. Guthrie, Toronto	1
Best 12 early horn carrots, James King, York	2
2nd do James Carey, West Flamboro'	1 1/2
3rd do R. Guthrie, Toronto	1

Best 12 table parsnips, A. A. Baker, Guelph	2
2nd do R. Guthrie, Toronto	1 1/2
3rd do Thomas M. Munn, Paris	1
Best 6 roots of white celery, W. & W. Burgess, York	2
2nd do Thomas M. Munn, Paris	1 1/2
3rd do John Freed, Hamilton	1
Best 6 roots of red celery, K. Macaulay, Barton	2
2nd do John Freed, Hamilton	1 1/2
3rd do B. Losee, Cobourg	1
Best dozen capsicums (ripe), G. J. Miller, Virgil	2
2nd do Thomas Harper, Hamilton	1 1/2
3rd do James Wildes, Hamilton	1
Best collection of capsicums (ripe), E. C. Fearnside, Hamilton	3
2nd do R. C. Gill, Cramahc	2
3rd do Thomas Harris, Barton	1
Best 3 egg plant fruit, purple, James Wildes, Hamilton	2
2nd do D. Ewing, Barton	1 1/2
3rd do Thomas Harper, Hamilton	1
Best 12 tomatoes (red), John Sherman, Oakville	2
2nd do G. J. Miller, Virgil	1 1/2
3rd do John Freed, Hamilton	1
Best twelve tomatoes (yellow), Thomas Harris, Barton	2
2nd do E. C. Fearnside, Hamilton	1 1/2
3rd do James Wildes, Hamilton	1
Best assorted collection of tomatoes, E. C. Fearnside, Hamilton	3
2nd do J. D. Humphreys, Toronto	2
3rd do B. Losee, Cobourg	1
Best twelve blood beets, long, J. Young, Virgil	2
2nd do G. J. Miller, Virgil	1 1/2
3rd do Wm. Benham, Guelph	1
Best peck of white onions, John Young, Virgil	2
2nd do A. Case, Barton	1 1/2
3rd do A. A. Baker, Guelph	1
Best peck of yellow onions, Sam. Sinfield, Barton	2
2nd do J. Young, Virgil	1 1/2
3rd do A. Case, Barton	1
Best peck of red onions, G. J. Miller, Virgil	2
2nd do J. Young, Virgil	1 1/2
3rd do R. Simpson, Barton	1
Best two quarts of pickling onions, K. Macaulay, Barton	1 1/2
2nd do Thomas Harris, Barton	1
Best twelve white turnips (table), Sam Sinfield, Barton	2
2nd do R. Pollock, Barton	1 1/2
3rd do Thomas Harris, Barton	1
Best twelve yellow turnips (table), Jas. Wildes, Hamilton	2
2nd do Sam. Sinfield, Barton	1 1/2
3rd do J. Freed, Hamilton	1
Best twelve ears sweet corn, J. Young, Virgil	2
2nd do Sam. Sinfield, Barton	1 1/2
3rd do H. J. Brown, Niagara	1
Best six varieties of potatoes, for garden cultivation, half peck of each sort, named, K. Macaulay, Barton	2
2nd do Samuel Sinfield, Barton	1 1/2
3rd do G. Rykert, St. Catharines	1
Best three squashes (table), John Freed, Hamilton	2
2nd do A. Case, Barton	1 1/2
3rd do James Harvey, Barton	1
Best and greatest variety of vegetable, (distinct from other entries), each kind named, James Wildes, Hamilton	4
2nd do Thomas Harris, Barton	3
3rd do Samuel Sinfield, Barton	2

EXTRA ENTRIES.

Egg plant fruit (white), Thomas Harris, Barton	50c
Leeks, Lima beans, Brussels sprouts, radishes, and Scotch kale, Thomas Harris, Barton	\$2 1/2
Red egg plant fruit, J. D. Humphreys, Toronto	50c
Radishes, cucumbers, beans, &c., D. Ewing, Barton	\$1 1/2
Plate of garlic, E. C. Fearnside, Hamilton	50c
Capsicums and tobacco in pots, E. C. Fearnside, Hamilton	\$1 1/2
One brace of cucumbers, Ford & Hay, Water-down	50c
Collection of radishes, James Wildes, Hamilton	50c
Leeks, radishes, Lima beans, &c., Samuel Sinfield, Barton	\$2

CLASS XXXV.—PLANTS AND FLOWERS.—151 ENTRIES.

JUDGES.—Dr. Cottel, Woodstock; Wm. Grey, Woodstock; Capt. Cadby, Hamilton; Geo. Baxter, Kingston.

Best dozen dahlias, standard varieties, named, George Leslie, Toronto	\$ 2
2nd do John Gray, jun., Toronto	1 1/2
3rd do John Weatherstone, Hamilton	1
Best twelve bouquet dahlias do do	2
Best and largest collection of dahlias, do do	5
2nd do George Leslie, Toronto	4
Best bouquet cut flowers (for table) Thos. Buchanan, Hamilton	2
2nd do John Weatherstone, Hamilton	1 1/2
3rd do W. T. Goldsmith, Grantham	1

Table listing agricultural products and their prices. Includes items like 'Extra do J. S. Hirschfelder, Toronto', 'Best hand bouquet, Thos. Buchanan, Hamilton', 'Best collection of green-house plants', 'Best collection of annuals in bloom', 'Best 12 German asters', 'Best collection of ten weeks' stock', 'Best collection of hybrid perpetual roses', 'Best floral ornament or design', 'Best 12 verbenas', 'Best collection of verbenas', 'Best six petunias', 'Best collection perennial phloxes', 'Best six hardy shrubs', 'Best display of plants in flower', 'Best collection of native plants', 'Basket of exotic leaves', 'Collection of gladiolus', 'Collection of autumn leaves', 'Seedling petunias', 'Six double zinnias', 'Boquet of flowers for winter', 'Bouquet of everlasting flowers', 'Fern case', 'Collection of Noisette, tea and Bourbon roses'.

DAIRY PRODUCE, &c.

Table listing dairy products and their prices. Includes items like 'CLASS XXXVI.—DAIRY PRODUCTS, HONEY, BACON, &c.—160 ENTRIES.', 'JUDGES.—Metcalf Thwaite, Whitby; John B. Smyth, London; W. H. Nicolls, Hamilton.', 'Best firkin of butter, in shipping order, not less than 56 lbs., D. Clark, Puslinch', '2nd do G. Stranger, Nassagaweya', '3rd do John Shearer, Westminster', '4th do John Yassic, Ancaster', 'Best butter, not less than 28 lbs., in firkins, crocks or tubs, D. Clark, Puslinch', '2nd do John Yassic, Ancaster', '3rd do G. Stranger, Nassagaweya', '4th do D. A. McArthur, Lobo', 'Extra, Miss Mary Thomson, York Township', 'Best cheese, not less than 30 lbs., Hiram Ranney, Dereham', '2nd do James Harris, Ingersoll', '3rd do James Cowan, Galt', '4th do P. Hinman, Grafton', 'Best two Stilton cheeses, not less than 12 lbs. each, H. K. Parsons, Guelph', '2nd do do do', '3rd do Hiram Ranney, Dereham', '4th do do do'.

Table listing agricultural products and their prices. Includes items like 'Best honey in the comb, not less than 10 lbs., Hugh McKee, Norwichville', '2nd do John Ramsay, Eden Mills', '3rd do A. Case, Barton', '4th do D. Vandusen, Grimsby', 'Best jar of clear honey, D. Vandusen, Grimsby', '2nd do Jeremiah Lyons, West Flamboro', '3rd do A. Case, Barton', '4th do Alexander Patterson, Paris', 'Best 30 lbs. maple sugar, P. Hinman, Grafton', '2nd do Mrs. C. Miller, Norval', '3rd do P. Howell, Ancaster', 'Best side of cured bacon, John Campbell, Hamilton', '2nd do John Campbell, Hamilton', 'Best ham, cured, do do', '2nd do do do', '3rd do do do', '3rd do do do', 'EXTRA ENTRIES.', 'Pine-apple cheeses, Hiram Ranney, Dereham', 'Pine-apple cheeses, James Harris, Ingersoll', 'Chinese sugar-cane syrup, T. Easterbrook, East Flamboro', 'Spiced bacon, beef and mutton, John Campbell, Hamilton', 'Mutton hams, John Campbell, Hamilton', 'One loaf bread, Mrs. Laury, Hamilton'.

IMPLEMENTS

Table listing agricultural implements and their prices. Includes items like 'CLASS XXXVII.—AGRICULTURAL IMPLEMENTS, WORKED BY HORSE, OR OTHER POWER.—181 ENTRIES.', 'JUDGES.—W. Riddell, Cobourg; M. C. Lutz, Galt; John Renton, Glangford; H. A. Massey, Newcastle; Wm. Walker, London; and Alexander Shaw, Toronto.', 'Best portable steam-engine for agricultural purposes, not less than 6-horse power, to be put in operation on the ground; prize presented by His Royal Highness the Prince of Wales, F. C. Beckett & Co., Hamilton', 'Best iron plough, Adam Condy, Bartonville, Diploma and', '2nd do George Jackson, London', '2nd do Wm. Mahaffy, Brampton', 'Best wooden plough, John Elliott, London, Diploma and', '2nd do R. Runciman, Goderich', '3rd do G. Mahaffy, Brampton', 'Best subsoil plough, George Bryce, Brantford, Diploma and', '2nd do George Morley, Thorold', 'Best double-shear trench plough, R. Hill, Port Hope', '2nd do John Watson, Ayr', '3rd do do do', 'Best double mould plough, Geo. Morley, Thorold', '2nd do C. Lemain, Cobourg', 'Best pair of harrows, A. C. Bruce, Guelph', '2nd do George Bryce, Brantford', '3rd do Wm. Mahaffy, Brampton', 'Best horse-power thresher and separator, Joseph Hall, Oshawa, Diploma and', '2nd do L. & P. Sawyer, Hamilton', '3rd do John Watson, Ayr', 'Best grain drill, James Scott & Co., Dundas, Diploma and', '2nd do Maxwell & Whitelaw, Paris', '3rd do John Watson, Ayr', 'Best straw-cutter, John Watson, Ayr', '2nd do Maxwell & Whitelaw, Paris', '3rd do Hugh McLaren, Nelson', 'Best grain cracker, Geo. Benson, Buffalo, N. Y.', '2nd do A. Harris & Son, Beamsville', 'Best cider mill and press, A. Harris & Son, Beamsville', '2nd do N. M. Samson, St. Catharines', 'Best two horse team waggon, Wm. Robinson, Galt', '2nd do A. McIntyr, Puslinch', '3rd do Robert Miles, Mount Elgin', 'Best two horse spring market waggon, H. G. Cooper & Co., Hamilton', '2nd do H. Harrison & Son, Nelson', 'Best horse-rake, Eakin & Cash, Markham', '2nd do S. Day, Brantford', 'Best wooden roller, Eakin & Cash, Markham', '2nd do A. Harris & Son, Beamsville', 'Best stump extractor, Hugh McLaren, Nelson', '2nd do John Thomas, Hamilton', 'Best mowing machine, Joseph Hall, Oshawa, Diploma and', '2nd do Billington & Forsyth, Dundas', '3rd do John Watson, Ayr', 'Best reaping machine, John Watson, Ayr, Diploma and', '2nd do Billington & Forsyth, Dundas', '3rd do Joseph Hall, Oshawa', 'Best combined mower and reaper, L. & P. Sawyer, Hamilton, Diploma and', '2nd do Joseph Hall, Oshawa', '3rd do Palmer & Grout, Grimsby'.

Table listing agricultural products and their prices. Includes items like 'Best field or two horse cultivator, Eakin & Cash, Markham', '2nd do James Grindley & Co., Fergus', '3rd do T. & G. Morgan, Markham', 'Best horse hoe or single horse cultivator, Isaac Westcott, Bowmanville', '2nd do Thos. Muthhead, Paris', 'Best improved liquid manure drill, for drilling two or more rows of liquid, with turnips, mangels, &c., either on the ridge or flat, Jas. Betry, Wellington Square', '2nd do E. Rokey, Salem'.

EXTRA ENTRIES

Table listing agricultural products and their prices. Includes items like 'Best wood sawing machine, E. Leonard, London, Diploma', '2nd do J. & S. Noxon, Ingersoll', '3rd do W. Eastwood, Ingersoll', 'Horse hay fork, Geo. Ingle, Eden Mills', 'Horse corn planter, W. H. Abraham, Bertie', 'Horse-power, applicable to various purposes, E. R. Kent, Hamilton'.

CLASS XXXVIII.—AGRICULTURAL TOOLS AND IMPLEMENTS, CHIEFLY FOR HAND USE.—135 ENTRIES.

JUDGES.—John Watson, Eglington; Stephen Wade, St. Thomas; James Noble, Windsor.

Table listing agricultural tools and implements and their prices. Includes items like 'Best fanning mill, T. Wilson, Richmondhill, Diploma and', '2nd do T. Wilson', '3rd do James Scott & Co., Dundas', 'Best seed drill or barrow, John Watson, Ayr', '2nd do C. Lemaine, Cobourg', '3rd do E. Rokey, Salem', 'Best straw cutter, John Watson, Ayr', '2nd do do do', '3rd do Maxwell & Whitelaw, Paris', 'Best machine for cutting roots for stock, John Watson, Ayr', '2nd do do do', '3rd do Maxwell & Whitelaw, Paris', 'Best cheese-press, J. Amos & Son, Hamilton', '2nd do F. S. Clench, Cobourg', 'Best churn, Coridon Lewis, Dereham', '2nd do A. O'Dell, Bowmanville', 'Commended—Isaac Mills, West Flamboro', 'Best thistle extractor, Thomas Bryan, jr., London', '2nd do Wm. Firmann, Hamilton', 'Best farm gate, Richard Lewis, Melbourne, C. E.', '2nd do do do', 'Best specimen farm fence, wood, Samuel Hall, Toronto', '2nd do Henry Lutz, Saltfleet', '3rd do J. B. Gracey, Weston', 'Best specimen wire fencing, not less than two rods erected on the ground, William and Thomas Walker, Brampton', '2nd do H. Lamb, Port Nelson', '3rd do E. P. Smith, Sturgis, Michigan', 'Best half-dozen hay-rakes, Thomas Bryan, jun., London', '2nd do do do', '3rd do do do', 'Best half-dozen manure forks, A. S. Whiting & Co., Oshawa', '2nd do do do do', '3rd do do do do', 'Best half-dozen grass-scythes, A. S. Whiting & Co., Oshawa', '2nd do J. W. Robinson, Bridgewater', '3rd do A. S. Whiting & Co., Oshawa', 'Best half-dozen cradle scythes, A. S. Whiting & Co., Oshawa', '2nd do J. W. Robinson, Bridgewater', '3rd do A. S. Whiting & Co., Oshawa', 'Best machine for making drain tiles, William Lindsey, Newcastle, Diploma and', 'Best assortment of drain tiles, Thomas Nightingale, York Township', '2nd do E. Brown, Nelson', 'Best straw fork, wood, Thomas Bryan, junior, London', '2nd do do do do', '3rd do William Freeman, Hamilton, Trans.'

Best landscape or marine painting, not Canadian subject, John H. Caddy, Hamilton..... 7
 2nd do Wm. N. Cresswell, Harpurhey 5
 Best marine view, Canadian subject, William N. Cresswell, Harpurhey..... 7
 do do John H. Caddy, Hamilton..... 5

PENCIL CRAYONS.

Best crayon, coloured, Miss H. N. Harrison, Hamilton..... \$ 6
 Best crayon, plain, Richard Baigent, Toronto... 6
 Crayon portrait, from original sittings, Miss H. N. Harrison, Hamilton, 2nd prize..... 4
 Best pencil drawing, Richard Baigent, Toronto. 4
 2nd do Richard Baigent, Toronto..... 4

AMATEUR LIST—OIL.

Best animals, grouped or single, Mrs. E. Gourley, Hamilton..... 8
 2nd do John H. Whale, Burford..... 5
 Historical painting, John H. Whale, Burford, 2nd prize..... 5
 Best landscape, Canadian subject, John H. Whale, Burford..... 8
 2nd do John H. Whale, Burford..... 5
 Do Miss Mary E. Campbell, Hamilton, highly commended.

Do Miss M. Borland, Brantford, highly commended.
 Best landscape or marine painting, not Canadian subject, Miss R. Barnes, Saltfleet..... 8
 2nd do do, John H. Whale, Burford..... 5
 Best marine painting, Canadian subject, John H. Whale, Burford..... 8
 Portrait from original sittings, Mrs. A. Gillen, Brantford, 2nd prize..... 5

IN WATER COLOURS.

Best animals, grouped or single, Wm. Ambrose, Hamilton..... \$ 7
 2nd do Mrs. J. H. Roper, Hamilton..... 5
 Best flowers, grouped or single, D. Fowler, Emerald..... 5
 2nd do James Griffiths, London..... 5
 Do Mrs. Fitzgibbon, Toronto, very highly commended.

Best landscape, Canadian subject, William Ambrose, Hamilton..... 7
 2nd do D. Fowler, Emerald..... 5
 Do Mrs. Eliza Dixon, Hamilton, highly commended.
 Best landscape or marine painting, not Canadian subject, Wm. Ambrose, Hamilton..... 7
 2nd do Mrs. Eliza Dixon, Hamilton..... 5
 Do Mrs. Leggo, Hamilton, highly commended.
 Best marine view, Canadian subject, A. E. Walker, Hamilton..... 7
 2nd do do R. Crockett, Hamilton..... 5
 Best portrait, from original sittings, D. Fowler, Emerald..... 6

PENCIL CRAYONS.

Best crayon, coloured, Miss J. F. Dixon, Toronto 5
 2nd do James Gilbert, Toronto..... 3
 Do Miss J. S. Maughan, Toronto highly commended.
 Do Mrs. A. McCallum, Hamilton, highly commended.

Best crayon, plain, Miss J. F. Dixon, Toronto... 5
 2nd do Mrs. A. Gillin, Brantford..... 3
 Best crayon portrait, from original sittings, D. Fowler, Emerald..... 5
 Best pencil portrait, from original sittings, D. Fowler, Emerald..... 5
 Best pencil drawing, Allan Brough, Toronto... 5
 2nd do do Mrs. Bessie Gunn, Toronto..... 3
 Do special first prize, Miss E. Robertson, Colborne, diploma and..... 5
 Do D. Fowler, Emerald, commended.

Best pen and ink sketch, Mrs. G. Gourly, Hamilton..... 5
 2nd do do D. Fowler, Emerald..... 3
 Best photograph portraits, collection of, in duplicate, one set coloured, R. Milne, Hamilton... 10
 Best photograph portraits, collection of, plain, Butler & Little, Cobourg..... 8
 2nd do do R. Milne, Hamilton..... 5
 Do James Inglis, St. Catharines, highly commended.

Do R. W. Anderson, Toronto, highly commended.
 Best photograph landscapes and views, collection of, R. Milne, Hamilton..... 8
 2nd do do R. W. Anderson, Toronto..... 5
 Do D. C. Butchart, Toronto, highly commended.
 Best photograph portraits, finished in oil, D. G. Butchart, Toronto..... 8

EXTRA ENTRIES.

Canadian figure painting, oil, W. R. Snow, Hamilton..... 5
 Sepia drawing, R. Baigent, Toronto..... 3
 Original painting in water colours and photograph portrait painting in water colours, A. J. Cox, Cobourg..... 4

Oil painting, fruit, W. Wright, St. Catharines... 3
 Porrait, finished in ink, Butler & Little, Cobourg 3
 Water coloured solar camera photograph, James Inglis, St. Catharines..... 5
 Photograph portraits, finished in Indian ink, and photograph groups, out door, W. R. Anderson, Toronto..... 1
 Photograph, re-touched in Indian ink, and enlarged solar photographs, finished in Indian ink, D. C. Butchart, Toronto..... 4
 Sculpture, one piece, Samuel Gardner, Simcoe, Diploma and..... 3

REPORT OF JUDGES.—We have much pleasure in noticing that the Fine Arts department this year is quite equal to, and in some respects, superior to former years. We have still, however, to complain of a defective arrangement; many articles are consequently unnoticed, and much time is wasted in looking for pictures not placed in their proper sections. We consider the practice introduced at this Exhibition, of affixing the name of the artist to his picture as extremely objectionable, and recommend its discontinuance.

CLASS XLV.—GROCERIES AND PROVISIONS.

JUDGES.—A. McNaughton, Newcastle; Thomas F. Munn, Aylmer; E. Parker, Dundas.

Best barley, pearl, 25 lbs., John Cox, Hamilton, \$ 3
 2nd do do Robert King, do..... 2
 Best barley, pot, 25 lbs., John Cox, Hamilton... 3
 2nd do do do Robt. King, Hamilton..... 2
 Best biscuits, an assortment of, J. C. Chilman, Hamilton..... 6
 Best bottled fruits, an assortment, manufactured for sale, Jeremiah Lyons, West Flamboro'... 6
 2nd do do Nancy Hannon, Hamilton... 4
 Best bottled pickles, an assortment of, manufactured for sale, Jeremiah Lyons, West Flamboro'... 6
 2nd do do Nancy Hannon, Hamilton... 4
 Best buckwheat flour, 25 lbs., Robt. King, Hamilton..... 3
 2nd do do John McGregor, Nelson..... 2
 Best Chicory, 20 lbs., prepared, George Pears, Toronto..... 3
 Best Indian corn meal, 25 lbs., Robert King, Hamilton..... 3
 2nd do G. Davis, Wellington Square..... 2
 Best Oatmeal, 25 lbs., W. Turner, Elora, Nichol, 2nd do do John Stuart, Ingersoll... 2
 Best soap, one box of common, C. Watts, Brantford..... 4
 Best soap, collection of assorted fancy, C. Watts, Brantford..... 6
 Best starch, 12 lbs. of flour, Petrie & Strowger, Newcastle..... 2
 Best starch, 12 lbs. of potato, do. do..... 2
 Best tobacco, 14 lbs., Canadian manufacture, F. Schwatz, Hamilton..... 3
 2nd do do do..... 3
 Best wheat flour, Harrison Brothers, Owen Sound, 2nd do do do..... 7

EXTRA ENTRIES.

Confectionery, an assortment, J. C. Chilman, Hamilton, a Diploma and..... 4
 Split peas, 25 lbs., Jas. Russell, Claremont... 2
 Ground Spices, Kerry Brothers & Crathern, Montreal..... Diploma.
 British arrow root, a sample, Petrie & Strowger, Newcastle..... Diploma.
 Tallow candles, C. Watts, Brantford..... 2
 Dandelion coffee, George Pears, Toronto..... 2
 Vinegars, an assortment of, S. B. Medley, Hamilton..... 3
 Farina, specimen of, John Cox, Hamilton..... 2

JUDGES' REPORT.—The Judges in Class XLV. beg to draw the attention of the Board to the manner the articles in this department are distributed throughout the building, instead of being found in one place, when there is ample room. The display is unusually small this year.

CLASS XLVI.—LADIES' WORK.

JUDGES.—Miss G. White, Woodstock; Miss E. Addison, Galt; Miss Roberts, Dundas; Mrs. Kidner, Hamilton; Miss C. M. Stephens, Cobourg, Miss E. Cary, Paris.
 Best Bead work, Miss Eliza Jane Lyons, West Flamboro'..... 3
 2nd do E. Carpenter & Co., Hamilton..... 2
 3rd do do do..... 1
 Best braiding, Mrs. Bates, Hamilton..... 3
 2nd do Mrs. Colbeck, Hamilton..... 2
 3rd do Mrs. J. Inglis, St. Catharines... 1
 Best crochet work, Mrs. Wintermute, Hamilton 2
 2nd do E. Carpenter & Co., Hamilton..... 2
 3rd do Mrs. Wintermute, Hamilton..... 1
 Best embroidering in muslin, Mrs. Williams, Hamilton..... 3
 2nd do Miss Harriet Bidwell, Cramahc..... 2
 3rd do Mrs. McKindrey, Milton..... 1

Best embroidery in cotton, Miss Silverthorne, Cooksville..... 3
 2nd do Miss Mary Ambridge, Hamilton..... 2
 3rd do Miss Stickle, Cobourg..... 1
 Best embroidery in silk, Mrs. E. Carrigan, Hamilton..... 3

Best embroidery in worsted, Miss Johnston, Hamilton..... 3
 2nd do Miss Eliza Jane Lyons, W. Flamboro'... 2
 3rd do Mrs. T. A. Young, Fergus..... 1
 Best gloves, three pairs, P. Himman, Grafton... 2
 2nd do Mrs. J. H. Rutherford, North Dumfries 1
 3rd do Catherine Hancock, Hamilton..... 50c

Best guipure work, Miss Eliza Jane Lyons, West Flamboro'..... 3
 2nd do Mrs. Bates, Hamilton..... 2
 3rd do Miss Harriet Bidwell, Cramahc..... 1
 Best hair work, Mrs. Anne Robertson, Colborne. 3
 2nd do Mrs. H. P. Wilson, Caistor..... 2
 3rd do Mrs. John Brookon, Nelson..... 1
 Best knitting, Mrs. David Bates, Glanford..... 3
 2nd do Mrs. C. Miller, Norral..... 2
 3rd do Mrs. James Pole, Caledonia..... 1
 Best lace work, Mrs. Manley, Toronto..... 3
 2nd do Miss Harriet Bidwell, Cramahc..... 2
 3rd do Miss Eliza Jane Lyons, West Flamboro' 1
 Best mittens, three pairs, woollen, M. D. House, Clinton..... 2

2nd do P. Himman, Grafton..... 1
 3rd do Julius Rouse, Brantford..... 50c
 Best needle-work, ornamented, Mrs. C. Miller, Norral..... 3
 2nd do Miss Eliza Jane Lyons, West Flamboro' 2
 Work exhibited before, Mrs. Bates, Hamilton... dip
 Best netting, fancy, M. Ashton, London..... \$ 3
 2nd do Mrs. Holden, Guelph..... 2
 3rd do Miss Mary R. Hill, Kingston..... 1

Best plait for bonnets or hats, of Canadian straw, Mrs. H. Stickle, Cobourg... 3
 2nd do do do..... 2
 3rd do Josh. Sutton, North Flamboro'... 1
 Best shirt, gentleman's, Mrs. Bennett, Cobourg... 3
 2nd do Mrs. W. Mahaffy, Brampton..... 2
 3rd do Mrs. J. H. Rutherford, North Dumfries 1
 Best socks, three pairs of woollen, Mrs. G. Bennett, Cobourg..... 2
 2nd do Mrs. J. H. Rutherford, North Dumfries 1
 3rd do F. Teneyck, Biubrook..... 50c

Best stockings, three pairs of woollen, William Marshall, Barton..... 2
 2nd do Mrs. Dean, Hamilton..... 1
 3rd do Mrs. G. Bennett, Cobourg..... 50c
 Best tatting, Mrs. D. Powell, Cobourg..... 3
 2nd do Mrs. A. McGregor, Galt..... 2
 3rd do Miss H. Bidwell, Cramahc..... 1
 Best wax fruit, Miss P. A. Callis, Hamilton tp... 6
 2nd do Mrs. W. Bridgeman, Grimsby..... 4
 Best wax flowers, Mrs. W. E. Welding, Brantford 6
 2nd do Miss Rowe, Whiby..... 4
 3rd do Mrs. James Reilly, Fonthill..... 2

Wax shells, collection, 3rd prize, Miss Rowe, Whiby..... 2
 Best worsted work, Mrs. C. Farrell, Cayuga.... 3
 2nd do Mrs. A. McGregor, Galt..... 2
 3rd do Mrs. James Johnson, London..... 1
 Best worsted work, fancy, for framing, Miss E. Lowell, Galt..... 3
 2nd do Miss E. J. Skinner, Hamilton..... 2
 3rd do Miss E. J. Lyons, West Flamboro'... 1
 Best worsted work, raised, Mrs. Bates, Hamilton 3
 2nd do Miss E. J. Lyons, West Flamboro'... 2
 3rd do Mrs. L. Hutchinson, Walsingham..... 1

EXTRA ENTRIES.

Antimacassar, Miss A. Lyons, West Flamboro'.. 3
 Silver wire flowers, Miss E. J. Lyons, do..... 2
 "Cordon" pocket handkerchief, Miss H. Bidwell, Cramahc..... 1
 Silk quilt, W. Ramsay, Binbrook..... 1
 Farmers' wreath, T. M. Rogers, Cobourg..... 2
 Cone basket, Mrs. J. Reilly, Fonthill..... 1
 Cone basket and frame, Mrs. Egbert, Toronto... 3
 Quilts, three, Mrs. John Cramm, Hamilton..... 3
 Wreath of seeds, Mrs. Allen, Yorkville..... 2
 Berlin wool work, Miss Giles, Ingersoll..... 2
 Embroidered handkerchief, Mrs. K. Robertson, Galt..... 1
 Cone work, Mrs. Lottridge, Hamilton..... 1
 Shell frames, Mrs. J. H. Roper, Hamilton..... 2
 Moss pictures, Canadian scenery, Mrs. K. Tully, Toronto..... 2
 Ladies' bonnets, three, John Halbiick, Galt... 3
 German dolls, two, Mrs. Jones, Yorkville..... 1
 Flower wreath (dried), Mrs. J. D. Lafferty, Hamilton..... 1
 Paper flowers, Mrs. Kerr, Hamilton..... 2
 Machine sewing, Wanzer & Co., Hamilton..... 1
 Seaweed basket, Miss Williams, Hamilton..... 1
 Cotton stockings, ladies', Mrs. E. W. Pepper, Colborne..... 1

Hearth rag, Miss Rowe, Whitby 1
 "Lyle" of everlasting flowers, Mrs. Jas. Reilly, Fontbill 2
 White quilt, Mrs. Wilson, Dixie 1
 Wreath of wool and silver wire flowers, Anson Stormes, Odessa 3
 Moss wreath, Anson Stormes, Odessa 1

CLASS XLVII.—MACHINERY, CASTINGS AND TOOLS
 JUDGES.—John Doty, Oakville; Charles Levey, Toronto; F. J. Rastick, Hamilton.

Best blacksmiths' bellows, James Dallyn, Hamilton 4
 2nd do J. Dallyn & Son, Hamilton 3
 Best edge tools, assortment of, Galt Edge Tool Company, H. H. Date, Agent 15
 Best engine, steam, stationary, five-horse power and upwards, in operation, George Northey, Hamilton 25
 2nd do F. G. Beckett & Co., Hamilton 15
 Best pump in metal, D. S. Keith, Toronto 6
 Best refrigerator, D. S. Keith, Toronto 6
 Best saw-mill in operation, Waterous & Co., Brantford, Diploma and 6
 Best sowing machine, manufacturing, R. M. Wanzer & Co., Hamilton 8
 Best sewing machine, family, Chas. Irwin, Belleville 8
 2nd do R. M. Wanzer & Co., Hamilton 5
 Best scales, platform, Gurney, Ware & Co., Hamilton 5
 Best scales, counter, Gurney, Ware & Co., Hamilton 3
 Best tools for working metals, assortment of, McKechnie & Bertram, Dundas 12
 2nd do W. H. Gibson, Dundas 7
 Best turning lathe, McKechnie & Bertram, Dundas 7

EXTRA ENTRIES.

Pricking and setting machine for manufacturing card clothing, Eyre Thurston, Ancaster 10
 Assortment of card clothing, Eyre Thurston, Ancaster 4
 Lot of edge tools, J. W. Robinson, Bridgewater 10
 Iron planing machine, W. H. Gibson, Dundas 5
 Brass finishing lathe, W. H. Gibson, Dundas 2
 Self-opening gate, John & Daniel McFarlane, Eobicoke 3
 One fire-engine, William Marks, Toronto 10
 Barrel-head planer and barrel head turner, Mair, Inghs & Co., Guelph 4
 Shingle sawing machine, Mair, Inghs & Co., Guelph 5
 Variety moulding machine, McKechnie & Bertram, Dundas 4
 Improved adjustable self-feeding boring machine, James Vandyeke, Grimsby 8
 Empire meat chopper, Isaac A. Moyer, Clinton 5
 Patent cylinder pump, J. James, Newmarket 2
 Assortment steam-pressure gauges, T. C. Collins, Toronto 10
 Self-centring boring machine, for carriage and wagon wheels, A. McCarter, Walkerton 4
 Railway locomotive boiler, cylinders, engine wheels, crank axles, car springs, axle boxes, taps, car axle, connecting rods, &c., G. W. R. R. Works, by S. Sharp, superintendent, Diploma and honourable mention.

JUDGES' REPORT.—The judges in this class would recommend that honourable mention be made of the several articles exhibited by the Great Western Railway Company, as they evince enterprise on the part of the Company, and superior skill on the part of the workmen; and they feel that they can not award any money prize that would be commensurate with the design and finish of the several articles exhibited; the judges also award a diploma.

CLASS XLVIII.—METAL WORK (MISCELLANEOUS) INCLUDING STOVES.

JUDGES.—George Wales, St. Catharines; Robert Moore, Simcoe; Thomas Cowherd, Brantford.
 Best engine's brass work, an assortment, D. S. Keith, Toronto 8
 2nd do Samuel Sharp, Hamilton 5
 Do T. S. Collins, Toronto, commended 5
 Best fire-arms, an assortment, James M. Jones, Chatham 8
 Best fire-proof office safe, J. & J. Taylor, Toronto 8
 2nd do Kershaw & Edwards, Montreal 5
 Best combination bank lock, Kershaw & Edwards, Montreal 5
 Ornamental iron work, from the hammer, James Berry, Wellington Square, 2nd prize 4
 Best nails, 20 lbs. pressed, R. Jason and Co., Hamilton 6
 2nd do 20 lbs., cut, R. Jason & Co., Hamilton, 6
 Best plumbers' work, an assortment, Malcolm & Anderson, Hamilton 8
 Best screws and bolts, an assortment, Samuel Sharp, Hamilton 6

Best tinsmiths' lacquered work, an assortment, Thomas R. Gilpin, S. Mary's 6
 2nd do D. Moore & Co., Hamilton 4

STOVES.

Best cooking stove, for wood, D. Moore & Co., Hamilton 6
 2nd do D. Moore & Co., Hamilton 4
 Best furniture, for cooking stove, one set, D. Moore & Co., Hamilton 4
 Best hall stove, for wood, Hon. H. Ruttan, Cobourg 5
 2nd do D. Moore & Co., Hamilton 3
 Best parlour stove, for wood, D. Moore & Co., Hamilton 5
 2nd do D. Moore & Co., Hamilton 3
 Best parlour stove, for coal, D. Moore & Co., Hamilton 6

EXTRA PRIZE.

Two spool stands, and three clam-shell boxes, Matthews & Howles, Hamilton 2
 Cable, trace, and log chains, an assortment, Henry Schutte, Barton 3
 Nails, an assortment, R. Jason & Co., Hamilton, Diploma 6
 Curry combs, an assortment, E. Burnham & Co., Toronto 8
 Drum heater, M. North, Brantford, Diploma and Parlour house safe, J. & J. Taylor, Toronto 2
 Lightning rod, George Kimball, Toronto 2
 Railroad spikes, S. M. Gobel, Hamilton 5
 Door-spring and hinge, combined, and door-plate with bell attached, C. S. Nickleson, Hamilton 4
 Duck tea-kettle and iron heater, D. Moore & Co., Hamilton 2
 Model of a Locomotive brass dome, A. Frumviller, Hamilton 4

CLASS XLIX MISCELLANEOUS, INCLUDING POTTERY AND INDIAN WORK.

JUDGES.—Samuel Qua, Paris; Duncan McMillan, Dundas; W. H. Sheppard, Toronto; P. A. McDougall, Oakville.

MISCELLANEOUS.

Best brushes, an assortment, Alfred Green, Hamilton, Diploma and 6
 2nd do Meakins & Son, Hamilton 4
 Best model of a steam vessel, Richard Osborne, Newburgh 3
 2nd do Samuel Symons, Hamilton 4
 Best model of a sailing vessel, James Heasley, Kingston 4
 2nd do Richard Osborne, Newburgh 5
 POTTERY.
 Best filter for water, J. H. Ahrens, Paris 3
 2nd do W. & R. Campbell, Hamilton 2
 Best Pottery, an assortment, W. & R. Campbell, Hamilton 5
 2nd do J. H. Ahrens 8
 Best sewerage pipes, stoneware, an assortment of sizes, W. & R. Campbell, Hamilton 10
 2nd do T. Nightingale, York township 6
 Best stoneware, an assortment, F. P. Gould, Brantford 10
 Best slates for roofing, Ben. Walton, Toronto 8
 2nd do J. J. Vickers, Toronto 5

INDIAN WORK.

Best buckskin mittens, one pair, H. Y. Ferdinand, Waterloo 2
 Best moccasins, worked with beads or porcupine quills, one pair, Marie, Caughnawaga 3
 2nd do Louise, Caughnawaga 2

EXTRA ENTRIES.

Model of brick-kiln, W. Wagner, Montreal, a Diploma. 6
 Pleasure boat, pleasure skiff, oars and paddles, W. O. Gorman, Kingston 10
 Glassware, Gatchell, Moore & Co., a Diploma and Racing skiff, working skiff, and set of models of boats, D. Phelan, Hamilton 5
 Forsmoking caps and cushions, holy-water cups, head-bags, comb-baskets, &c., &c., the sum of \$32 was awarded in prizes to Indians from Caughnawaga, Cornwall, and St. Regis 5
 Curling stones, Robert Carse, Hamilton 2
 Bricks, white and red, pressed, Daniel New, Hamilton 8
 Do., Machine-made, Thomas Nightingale, York township 5
 Model of a full-rigged ship, John Ross, Hamilton, commended. 5
 Lawn vases and hanging flower-pots, an assortment, W. & R. Campbell, Hamilton Com.

CLASS L.—MUSICAL INSTRUMENTS.

JUDGES.—John Hilton, Hamilton; Herman Kordes, London; John Carter, Toronto.
 Best harmonium, R. S. Williams, Toronto 10
 2nd do Andrews Bros., London 6
 Best melodeon, R. S. Williams, Toronto 6
 2nd do Andrews Bros., London 4

Best piano, square, C. L. Thomas, Hamilton 15
 2nd do John C. Fox, Kingston 10

EXTRA ENTRIES.

Violin, Coridan Lewis, Dereham 1
 Church organ, T. F. Roome, Toronto, a Diploma and 15

CLASS LI.—NATURAL HISTORY.

JUDGES.—Professor Hincks, Toronto; Robt. Algar, Brantford.
 Canadian birds, stuffed, named and classified, Thos. Mellwraith, Hamilton, 1st prize 8
 Insect, collection of native, named and classified, Reginald Fourlay, Hamilton, 2nd prize 6
 Minerals—collection of minerals of Canada, named and classified, W. P. Wright, Hamilton, 1st prize 8
 Plants—collection of native plants, arranged in their natural families and named, Miss E. R. Cary, Paris, 1st prize 8

EXTRA ENTRIES.

Geological specimens, foreign, W. P. Wright, Hamilton 8
 Collection of singing birds, W. Debus, Hamilton, 12
 Collection of singing birds, Alex. White, Hamilton 6

CLASS LII.—PAPER, PRINTING, BOOKBINDING, AND TYPE.

JUDGES.—Robert Reid, London; W. Brown, Hamilton; J. Edwards, Toronto.
 Best bookbinding, blank books, assortment of, Dredge & Wilson, Toronto 5
 Bookbinding, letter-press, assortment of, Richard Haigh, Hamilton, 2nd prize 3
 Best letter-press printing, plain, George Brown, Toronto 5
 Best letter-press printing, ornamental, George Brown, Toronto Diploma and 5
 Best papers—printing, writing and wrapping, one ream of each, Jas. Buntin & Co., Hamilton Diploma and 6
 Best papers—blotting and coloured, one ream of each, Jas. Buntin & Co., Hamilton 6

EXTRA ENTRIES.

Lovell's series of school books, John Lovell, Diploma. Envelopes, assortment of, J. Buntin & Co., Hamilton Diploma.
 Mill board and straw board, Mrs. C. Bansley, West Flamboro', Diploma and 2
 Letter-press printing, ornamental cards and posters, George Brown, Toronto, commended.

CLASS LIII.—SADDLE, ENGINE-HOSE, TRUNK MAKERS' WORK AND LEATHER SADDLERY, &C.

JUDGES.—Duncan McKay, Brantford; Thos. Morrow, Cobourg; Hugh Cant, Galt.
 Best engine hose and joints, 2 1/2 inch diameter, 50 feet of copper rivetted, Wm. Marks, Toronto 8
 2nd do William Inkson, Hamilton 5
 Best harness, set of double carriage, E. Kraft, Hamilton 8
 2nd do Wm. Inkson, Hamilton 5
 Best harness, set of single carriage, A. Fraser, Hamilton, diploma and 7
 2nd do E. Kraft, Hamilton 4
 Best harness, set of team, R. Malcolm, Toronto 5
 2nd do Wm. Inkson, Hamilton 3
 Best harness, set of express, R. Malcolm, Toronto 6
 Best hames, carriage or gig, best assortment, G. L. Campbell, Hamilton 5
 Best hames, team or cart, best assortment, Robt. Malcolm, Toronto 5
 2nd do R. C. Gill, Cramah 3
 Best saddle, ladies', quilted safe, Wm. Thompson, Whitby 6
 Best saddle, gentlemen's plain shaftoe, William Thompson, Whitby 6

LEATHER.

Best belt leather, 30 lbs., John Bartle, Chippawa 4
 2nd do George Sime, Dunville 3
 Best brown strap and bridle, one side each, Jno. Bartle, Chippawa 4
 Best deer skins, three dressed, Henry Ferdinand, Waterloo 3
 Best harness leather, two sides, John Bartle, Chippawa 4
 2nd do Robt. Lingwood, Fergus 3
 Best skirting for saddles, two sides, John Bartle, Chippawa, diploma and 4

EXTRA ENTRIES.

Scotch collars, R. Malcolm, Toronto 2
 Skate leathers, R. Malcolm, Toronto 1
 Scotch collars, Ed. Leslie, Stratford 2
 Kay collar, Ed. Brazenor, Hamilton a Diploma.
 Prince of Wales collar and F&P Patent Collar, Ed. Brazenor, Hamilton 3
 Assortment of whips, G. H. King, & Co., Hamilton a Diploma.
 Assortment of whip thongs, Isaac McMichael, Hamilton 4
 Leather, dressed in Russian manner, W. Wagner, Montreal 2

SHORT-HORNS AT AUCTION.

THE Short-Horn herds of the late Col. FRANCIS M. BORN, of the Grove (Morris, Ont. Co., N. Y.) and of THOMAS L. HARRISON, of Morley Farm, (Morley, St. Lawrence County, N. Y.)

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These herds are of such excellent reputation that the undersigned confidently speaks the attention of the breeders of the United States and Canada.

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Nov. 1, 1864.

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SHORT-HORN.

DEVON AND AYRSHIRE CATTLE,

Thorough-bred & Trotting Horses,

COLTS by Hero, Commodore, Patchen, Jr., Major Low, &c. Also, the entire flock of SOUTH DOWN SHEEP, including the prize Canterbury Fines and Ram No. 106, bred by late Jonas Webb, the property of Hon. A. B. Conger.

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1865.

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