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THE

Canadian Agriculturist,

OR

JURNAL AND TRANSACTIONS OF THE BOARD OF AGRICULTURE

OF UPPER CANADA.

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August.

The earlier part of this month will be occu- d with the finishing of harvesting operations. the present date probably the greater part of fall wheat in the country has been secured. s gratifying to find that as additional intelli- ce is received of the progress of harvesting t the anticipations of the bountiful character the yield are nearly every where confirmed. weather has been exceedingly favorable the work of the season, so that we have son to believe not only that the crops of all ds will be good, but that they will be got the barns and stacks in very fine condition. are glad also to find by late arrivals from ope that the character of the season there much improved, and that although an aver- crop can now scarcely be anticipated, it will probably be much better than could have heretofore hoped for.

esides the harvesting operations the most ortant business of this month will consist in preparation of land for fall wheat, prepara- to sowing, at the end of the month, or ming of September. The result of the past seasons has done much to dispel the direful ehensions that our farmers were led to enter- from the reports from other quarters, of esistless ravages of the wheat fly. Either ultivation of our farms in this portion of ern Canada, is cleaner and better than in districts where the fly has heretofore so letely destroyed the crop, and where in many cases it was the practice to sow wheat year after year on the same land, so that the insect is not propagated here so rapidly; or the favorable character of our soil and climate enables us by sowing early to get ahead of the midge, better than they could do in those sections; or, again, the past two seasons have been peculiarly favorable for outmanœuvering the midge, and we have not yet seen the worst of it, but will learn to our cost hereafter what it is capable of doing. We do not wish by any means to lead any of our readers into the mistake of treating the insect with contempt, and sowing wheat as recklessly as heretofore; but we confess to entertaining the opinion, that with due attention to the requisite conditions of soil, to a proper system of cultivation and rotation of crops, and to other necessary precautions and requirements, fair crops of fall wheat may still be obtained, notwithstanding the prevalence of the midge. The chief conditions requisite are, that the land should be fertile and in good heart, that it should be of a dry and porous character naturally, or artificially as well drained as circumstances will permit, and that the wheat should be sown early, and be of an early ripening variety. We admit that in the Newcastle district, where there are some of the best Canadian farmers, and where the midge appeared several years earlier than in the counties adjoining and west of Toronto, they were obliged to give up sowing fall wheat almost altogether, and resort to the kinds of spring wheat which will bear sowing late. But we are not aware that the farmers in that district were

impressed particularly with the importance of sowing early, and early varieties of seed, as a means of escaping the depredations of the insect. Had they been, we are of opinion that they would not have been compelled to abandon fall wheat culture so entirely as they did. In fact, the idea of sowing very early ripening varieties, and the mode of obtaining them, viz.: by bringing seed from the South, is comparatively recent. In New York State, in Genesee valley, and other wheat growing districts, though aware of the advantages of sowing early as a means of avoiding the midge, they were afraid of sowing too early, for fear of the autumn operations of the Hessian Fly. They were thus between two enemies, and the Genesee valley, so long famous for the excellence of its crops of wheat, was on the point of abandoning the culture of that grain. And here is another reason why we think that the comparatively better system of cultivation pursued by our farmers, as compared with that in some parts of the adjoining States and in Lower Canada, where these two insects have been so destructive, or some favorable peculiarity of our climate, may have something to do with the different results here. For although the Hessian Fly had been the means of almost entirely preventing the growth of wheat in some other places where it had appeared, we did not find that it committed very serious damages here, and after the first year or two the alarm in reference to it quite subsided. Be this as it may, however, since they have hit upon the expedient of getting early ripening varieties from the south, the farmers of Genesee valley have found, at least the experience of the past year or two goes to show, that they can sow late enough in the fall to escape much damage from the Hessian Fly, and yet have the grain come into bloom sufficiently early in spring to avoid also the other enemy.

There is still some difference of opinion upon the question as to whether wheat to ripen early should be brought from the North or the South, and many persons are quite surprised on hearing it said that it should be obtained from the latter direction. This is a very important point and should be established satisfactorily. Numerous facts support the opinion in favor of the South. Samples of the same variety brought from the South have ripened a week or ten days earlier, the first year, and brought from the North have ripened as much later than the crops grow from the native seed. The reason is, that the plant in the South acquires a habit of coming early to maturity, and this constitutional tendency adheres to it, for some time, notwithstanding the change of location, but gradually loses force, and after a few years the variety becomes naturalized, and ripens at the same time as the other native varieties.

The proper preparation of the land previous to sowing, will consist in keeping down weeds and stirring the soil, by the use of the plough, cultivator, or harrow, drawing out the manure, &c. The amount of cultivation to be given, and whether it should be deep or shallow, will depend very much upon the nature of the soil, and upon the cultivation it has already received during the season. On strong loamy clays, or stiff clays, there is no preparation for wheat so much to be depended upon as the thorough summer fallow. Such land should receive at least one, if not two pretty deep ploughings during the season, so as to bring up the subsoil, and expose it to the fertilizing influences of the atmosphere, and thus give the plant plenty of depth for the roots, and to facilitate drainage. After two such ploughings the remainder of the cultivation may consist in stirring the surface with a light plough, gang of ploughs or cultivator, and working in the manure, if any is applied, till the time for ridging for the seed arrives. Such soils may also produce a fair crop of wheat, if ploughed up from sod the previous autumn or spring, and sown thickly with peas for an intervening crop. If the peas can be got off about the 1st of August there would be an advantage in ploughing the land as soon as possible afterwards, to prevent the danger of baking in case of very dry weather, and it would then keep in good condition for ridging at seed time. In case of sowing wheat after peas, a light manuring will be more necessary than after the thorough fallow, though in either case this will depend upon the condition of the land as to fertility, and the previous course of cropping. The manure should be previously decomposed by turning into heaps, or by composting, in order to ensure the destruction of weed seeds, and covered in with a light seed ploughing previous to drilling or ploughing in the seed.

In soils of a lighter character than those described, that is of a more loamy or porous

racter, the thorough summer fallow is not so requisite, except in case of the land being foul with weeds. Such land may be ploughed up after taking a crop of clover, or free pasture, in July, and be got in good order for sowing by 1st September; or the ploughing may even be left till just before sowing, and by the use of the land presser the edges of the furrows pressed down to prevent the grass springing up, and a good bed made for the seed, where it would be well covered by the harrow. If such land is in good heart, and has been well manured for the clover, a good crop of wheat may be obtained without further manure. Or such clover ley may be sown to peas in spring, and got into good condition for wheat with a single ploughing afterwards. In the latter case, or in case of any other summer crop having been taken, a light dressing of manure would be advisable. For a short fallow from clover ley on a loamy soil, the Oshawa Manufacturing Company's Skim Coulter Plough is a capital implement. It buries the sod completely from the light and air, and secures its thorough decomposition in much less time than is done by the ordinary plough.

Editorial Correspondence.

[No. 3.]

THE GREAT NATIONAL AND AGRICULTURAL EXHIBITION OF FRANCE.

PARIS, June 23rd, 1860.

This immense display of the agricultural productions of France and her colonies has been open for the inspection of the public during the present week, and will close to-morrow, (Sunday) when free admission will be granted to all who may be desirous of entering these truly beautiful and extensive grounds. Hitherto the charge for admission has been a franc, (about a fifth of a dollar,) and it is said from forty to fifty thousand have each day entered the enclosure, besides large numbers having a right of free ingress. It is impossible in the hurry of the moment, and within the limits of an ordinary communication to convey to our readers any adequate idea of this great gathering; I must be content to state a few of the more prominent facts which came under my own observation.

This Exhibition is purely French; all the live stock having been bred in this country, and the vegetable and other productions representing the capabilities of the different soils and climates of France are all of native growth. The only exception I could learn relates to the department of implements and machines, in which there are several specimens of some half dozen of the most eminent British manufacturers. A similar exhibition to the present, but on a much smaller scale, was held in this metropolis in 1855, but it attracted comparatively little attention either in town or country. In the following year an extensive international exhibition was held, in which the live stock and agricultural productions of the British Islands occupied a prominent position; and it would appear, that the unfavorable contrast thereby produced, aroused the energy of the French people, and gave a new impulse to their agriculture, the fruits of which are so pleasingly apparent in the present exhibition.

In regard to completeness of arrangements, cleanliness, beauty of appearance, and other such adjuncts, this show vastly exceeds any thing that I have ever seen, or even imagined. The space occupied comprises several acres of the most beautifully ornamented grounds attached to those of the Tuilleries, which constitute such an attractive and lovely feature of this really splendid city. In the Palace of Industry, a noble permanent structure, in which the former World's Exhibition was held, the cattle are most conveniently arranged according to their respective breeds, and the centre of the building consists of green sod, ornamental water, fountains, and a rustic bridge, with shrubs and collections of the choicest and most carefully cultivated flowers. Straw mats even are put for the cattle and horses to repose on, and the most sedulous attention is paid to cleanliness. The capacious galleries above are devoted to the reception of grains and the numerous productions of the soil, with the lighter and more highly finished tools and machines. Out of the Palace are two immense ranges of stalls for horses, with excellent arrangement for sheep, pigs, and poultry, and the larger kinds of agricultural implements and machinery, so truly characteristic of an advancing husbandry. In short nothing has been spared in the way of expense and artistic design and finish to make this great exposition of a nation's industry, as attractive to the eye as it is instructive to the mind. The French are unquestionably *au fait* in matters of this kind.

According to the Catalogue,—a large volume of some 700 pages, for which I paid only a franc,—there are near 1500 entries of cattle. Of these 168 consist of pure Durhams; 146 crosses by a short horn bull; 30 other crosses by Ayrshires and others; 50 pure Ayrshires; and only 10 of Herefords, Devons, &c. Now although no English stock formed a part of the Exhibition, yet it was obvious enough to the most superficial observer, that the classes above enumerated were derived from British blood. The pure French breeds consist of 870 entries, in which the Norman and Bretonne greatly predominate. There are specimens of near twenty other native races, with which having no practical acquaintance, I can offer no decided opinions. In each class there are many excellent animals: well suited no doubt to the varied soils, climate, and markets of this great country. The pure British breeds being now fairly introduced are certainly destined to make progress; and there are many admirable specimens of the advantage of a cross between these, more particularly the Durhams, and the native French cows. The Norman race are fine and large, resembling in some respects the short horn, with which they form an admirable cross. It is probable that several of the French breeds would succeed in Canada, and make profitable animals: but experiments of this kind it would not be advisable to try on a large scale, while we can have unlimited recourse to the improved breeds of the British Islands. The Charolaise and Nivernaise cattle are compact and symmetrical, and evidently have good feeding properties, and their flesh, I am told, is of excellent quality. The show of Breton cattle is very large, and consists of numbers of beautiful little cows, black and white, much resembling some of the small breeds of Wales. Among the short horns may be seen a number of what even in England would be called good animals, and the same remark applies to Ayrshires. The Dutch breed, consisting of black and white, so admirably adapted to dairy purposes, are well represented. The Swiss breed, mostly of a dun color, appear to possess many good points; some of the bulls are of large size. The Emperor's cattle from the Imperial farms in the neighbourhood of Paris, occupied a distinct place; consisting of some good specimens of Shorthorns, and also, as far as I can judge, of Bretons, Normans, Swiss, &c.

The number of prizes awarded to horned cattle is 400; amounting in the aggregate to upwards of £6,000 sterling. Besides the money each first prize has appropriated to it a Gold Medal; the second a Silver, and the third a Bronze one.

It is agreed on all hands that France is making considerable progress in sheep farming, both in long and short wools. The number of entries in this department is 546; and the total amount of sheep is not far short of 1300. In France wool is the principal object sought for, while in England the carcase is regarded as of primary importance, and it will usually exceed in weight that of France as to two one. The Merino and Saxons are largely bred in France, and yield a fine, valuable wool: and it is estimated that at present one-fourth at least of all the sheep kept in this country consists of Merinos either pure or mixed. I learnt from reliable sources that of late years the French have managed to increase the weight of the carcass without injuriously affecting the quality of the fleece which of course has been proportionately increased in weight. The entries of the pure French Merino number 187, while the crosses amount to no less than 148. Some 30 entries of other native breeds are present, some of which appear inferior, though from want of practical knowledge respecting them, I can form but a very imperfect judgment. The foreign breeds are almost entirely English. In Leicesters there are 25 entries, with only a solitary specimen or two of Cotswolds and Lincolns. The short wools consist mainly of Downs; and nearly the whole of the cross breeds were got by English rams. Although the class of sheep is in many respects positively good there are a number of animals decidedly inferior, which should not have found a place in a *national* show; a remark that will apply to all the other departments of live stock. I have seen better specimens of the Leicesters at our Canadian Provincial Shows; and the Downs will not compare with such flocks as Jonas Webb's, Mr. Rigden's, the Duke of Richmond's, &c. It is evident, however, that the French are now experimenting in regard to sheep in an earnest and enlightened spirit, and that this department of husbandry is rapidly improving in that fine country and climate.

The Pigs are not numerous, only 240 entries—but the quality is decidedly good. Only belong to the French breeds, some few of

Norman and Ardennes appear to possess some valuable properties, but the majority are indifferent. The English breeds have redeemed this department of the Exhibition from decided inferiority.

The goats and rabbits deservedly attract attention, and the show of poultry, including pigeons, pheasants, peacocks, guinea fowls, &c., amounting to upwards of 800 cages, is a decided success. The dry character of the climate and the great demand for eggs are favourable to poultry keeping; and the numerous specimens of Cochins, Spanish, Bramahpootras, together with several native breeds, impart a high character to this department, which seems almost as attractive to gentlemen as to ladies.

I have almost forgotten the Horses, which constitute so prominent a feature of the exhibition. Till recently this useful animal, I understand, was not admitted into the French shows. On this occasion the horses amount to nearly a thousand, comprising all the distinctive breeds of the different Provinces of the country. The way in which the animals are housed and shown is admirable, securing the most perfect cleanliness and safety, and affording visitors the amplest opportunities of observation. The premiums offered in this class amount to upwards of £8,000 sterling. There are many animals of each breed that possess great merit, and a good selection for draught, the carriage, or the saddle, could very readily be made. A special class is provided for mules and asses, with premiums to the amount of £300; some of the males of the latter are of extraordinary size, and command high or rather fabulous prices. If I am correctly informed some of these stallions will fetch from one to three hundred pounds each; they are chiefly employed for the breeding of mules.

The Implement department is very extensive, comprising about 4,000 entries. Some of the old French ploughs and implements are really curiosities, and belong rather to the history of agricultural mechanics than to the great advances that have been made in modern times. In agricultural machinery France is yet far behind: her best tools and implements being in a great degree mere copies of English and American inventions. But no one could examine this immense collection without perceiving that a fresh impulse has recently been given in the direction of improvement, and the unwieldy wooden ploughs of the past, are beginning to make place for lighter and far more effective implements, chiefly constituted of iron. The very small farms, however, into which the country is cut up, must continue to operate against the introduction of machinery on an extensive scale.

I must here cease for the present. The hurry and noise incident to these occasions render it difficult for one to collect and communicate on paper his thoughts. I may have occasion to revert to matters connected with this country and exhibition in my next. G. B.

Pleuro-Pneumonia.

At a meeting of the Executive Committee of the New York State Agricultural Society, held on the 21st June last, Col. B. P. Johnson, Secretary, read a report of two visits he had made in the beginning of the month to Massachusetts (in the last of which he was accompanied by L. H. Tucker, Treasurer, and Professor Porter, Chemist to the Society), for the purpose of inquiring fully into all the facts connected with the cattle disease there prevailing, and to ascertain as far as practicable, the best probable means of arresting it. After glancing at the facts connected with the origin and progress of the present outbreak of the disease, which have been given pretty fully in late numbers of this journal, the report proceeds to recommend isolation of the diseased cattle, as a means of repelling the distemper, and expresses the opinion that with this means at hand there is no great occasion for the extensive panic which has prevailed on the subject. The report recommends that every precaution shall be taken to prevent the introduction of cattle from diseased localities into the State, and also expresses the belief that the means taken to repress the disease in Massachusetts will prevent its progress west of the Connecticut River in that State. Should this turn out to be the case we shall have much cause for thankfulness in this province, but in the mean time it is important that we should become fully acquainted with all the facts relating to the disease, so as to be prepared to act when necessary. The report says:—

From all we could learn we were led to believe, that if in the commencement or first appearance of the disease, the cattle affected and

those exposed are entirely *separated from others*, and *remain so*, under proper treatment, in clean, well ventilated stables, or in pasture, until all symptoms of the disease are *eradicated*, or the animals slaughtered and buried, that the disease may be arrested, as it has been frequently in England, Australia, Europe, and in this country.

That the disease is contagious, and under certain circumstances infectious, seems from the evidence to be established. We have seen no evidence that the disease is propagated in any way but by contagion or infection. There are, however, those who believe differently: but in Massachusetts, where the disease has been most prevalent, we think the opinion is nearly universal, that the disease is contagious.

Admitting that *isolation* of the infected cattle will stop the spread of the disease, it seems probable, (that, if the Massachusett laws are promptly and rigidly enforced, as it is believed they will be,) the disease will not hereafter cross the Connecticut river. So far as we are able to learn, there is no satisfactory evidence before the Commissioners, of any animal diseased passing *west of the Connecticut River in Massachusetts*. We hope this may prove to be so, as it greatly lessens the probability of the disease reaching our State from that direction.

After the reading of the Report, and a full consideration of the facts embodied in it, the following resolutions were adopted by the Board:

Whereas, An unnecessary alarm is believed at present to prevail in relation to the probable spread of the Pleuro-Pneumonia now existing in Massachusetts: and whereas, other milder and more common complaints are likely to be mistaken for it: and whereas, the symptoms of the disease are not only distinctly marked, but very plainly pointed out in the Report received from the Committee of the Society, who have recently visited the infected districts; therefore

I. *Resolved*, that in view of the highly contagious character of the Pleuro-Pneumonia, the chief and perhaps the only safety for the farmer in case of suspicion, lies in the isolation of his cattle as completely as possible from all contact with each other and with those of his neighbors.

II. That by the adoption of this course there are within the reach of every farmer, the means of restraining the Pleuro-Pneumonia should it appear within the limits of his own herd: and that, for the information of the farmers of this State in regard to the disease, the Report be printed for general circulation.

III. That the President and Secretary be a committee to designate one or more persons practically conversant with the Pleuro-Pneumonia, who may be consulted in case of suspicion in any part of the State, at the expense of the parties applying for such assistance, to dispel the suspicion at once if it proves to be unfounded, and to recommend the proper precautions and remedies if any case of the disease in question should actually be found to exist.

IV. That we warmly appreciate the disinterested efforts made by the State of Massachusetts to prevent the extention of this disease to other States; and that the thanks of the New York State Agricultural Society are hereby returned to the authorities of that common-wealth, and that a copy of these resolutions be addressed by the Secretary to his Excellency the Governor of Massachusetts.

The Turkish Bath as a Cure for Lung Disease in Cattle.

We copy from the *Irish Farmer's Gazette* the following extracts from the report of a committee appointed recently by the Royal Agricultural Improvement Society of Ireland to inquire into the utility of the Turkish Bath in cases of cattle distemper. We noticed this subject briefly in our last, and consider it of sufficient interest and importance, particularly in view of the prevalence of Pleuro-Pneumonia in the adjoining States, to deserve some further space in our columns. The mode of treatment adopted is quite novel, and appears to be successful with other animals, as well as cattle, and for other forms of disease than lung distemper. We are of opinion however that some further experience is required, to test the benefits of the treatment satisfactorily to the public. We shall look for further reports on the subject. The following are the extracts from the report in the Gazette:

"On the morning of Friday, the 15th inst. we proceeded at an early hour to St. Anne's Blarney, by appointment with Doctor Barter who received us very kindly, and spared no pains or trouble to place us in possession of all details that we considered calculated to throw light on the subject of our inquiry. After having conducted us through the portion of the establishment appropriated to the use of his numerous patients, and briefly explained to us the principle and construction of the bath as used for the human subject, we proceeded to view the cattle bath, constructed in a range of buildings in his farm-yard, which we found to consist of two apartments, each about 15 feet square, opening one into the other, the inner one being the hot room or bath, and the outer a cooling room, where cold or tepid water can be thrown over the animal after coming out of the hot room, as will be presently more fully explained. The heating process applied to the inner room is very simple, and is nothing more than is in use in every hothouse; a small furnace being placed at the rear of the building, and the heat carried round three sides of the room by a hot

flue, care being taken to keep the flue raised off the ground by the use of large tiles bridged on bricks, so that the air of the apartment circulates round the flue, whereby a considerable saving of fuel is effected. The walls of this apartment are studded in the usual way, about an inch of clear space intervening between the laths and the outer wall, whereby the radiation of heat is prevented and fuel still further economised. A strong rail, about 3½ feet high, running round the interior portion of the apartment, to prevent the animals rubbing against or injuring the flue, completes the arrangements. There were no cattle or other animals under treatment at the time of our visit: but our attention was drawn to the following recent cases of disease, all of which had been successfully treated with the bath, and without the use of any medicine whatever.

Two dairy cows in full milk, about three months calved, had been attacked with lung distemper, one on the 27th and the other on the 29th of May last: neither were put under treatment until unmistakable signs of distemper had manifested themselves, in the rapid drying up of the milk and subsequent quick respiration. The use of the bath (two hours at a time) was ordered, at first three times, and when urgent symptoms were got under, twice a day; and under this treatment, at the end of the third day, a manifest improvement in the state of each was the result, and at the end of the seventh or eighth day the further use of the bath was considered unnecessary; and from this period the milk, which had all but entirely disappeared during the violence of the attack, rapidly returned: and at the time of our visit, being the 7th and 19th days respectively from the date of the first attack, we were assured by the man who regularly milked them that they were both as quite as good milk as they had been previous to their being attacked, and we had no difficulty in crediting this statement, as it would have been impossible to distinguish either, from any one of the 40 cows with which they were grazing, whether from the appearance of the udder or their general healthy character.

We had also pointed out to us the several cows that were treated successfully during the last winter and early spring for distemper in the bath, and they were all, without exception, in perfect health, and stated by the herd to be in as good form for the dairy as they had ever been previously. The diseased animals are not separated from the others, nor does any particular attention to, or change of diet appear necessary.

We next proceeded to view a bath that has been recently erected, under the directions of Mr. Barter, by Mr. St. John Jefferies, of Blarney, and at which we were informed we should see several of his cattle under treatment. The location for this bath has been well selected in a retired paddock of two or three acres, well sheltered in, at a convenient distance from the farm-yard. The bath differs in no essential part from the one already described, excepting that the fire is placed in the outer, or cooling, room, and over it is placed a large boiler, by which means various articles of cattle food can be prepared and a constant supply of hot water kept, without any additional cost for fuel. The cases under treatment were, in all, six: five being the property of Mr. Jefferies and one that of a tenant of his, named Forest, living near.

Nos. 1 and 2 were well bred dairy cows that had been only under treatment two or three days. No. 1, a red cow, was evidently suffering severely from the attack, carried her head down, moved badly, had a quick, short breathing, and a short cough. No. 2, a roan cow, was also suffering under similar symptoms, but not so severely as No. 1.

No. 3, the property of Mr. Forest, was likewise under treatment for but three days, and was much reduced in appearance, and could not be said to be in a better way than her two companions. The above three cows were at large in the paddock, and, after some time we noticed the marks of recent bleeding on Nos. 1 and 2, and on questioning the man in charge, he informed us that both had been bled at the farm-yard previous to being sent to him for treatment, for no better reason, as far as he knew, than to "see whether it would be of any service." It is scarcely necessary to say that this treatment was very injudicious, and Doctor Barter stated that it was entirely contrary to his usage or advice in such cases, and that it must render their recovery slow and tedious.

We next went to the bath and found two cows in it, one that we shall call No. 4, in the outer or cooling room, just after having had several buckets of water thrown over her on coming out of the warm room, and another, No. 5, was still in the hot room. No. 4 was one of those tedious, uncertain cases of distemper that every one who has suffered much from it among their cattle is familiar with. After the violence of the attack is over, the animal seems to staad still; there are no urgent symptoms, but no recovery. They become much wasted in condition, a short hard cough remains, and you feel uncertain whether they will live or die, and would almost prefer the latter, for any value they seem likely to prove. This cow had been for over two months under treatment, and for a long time with little or no perceptible improvement till about a week previous to our visit, when a copious discharge of thick matter commenced from the nostrils, which the bath seemed to encourage, and when we saw her there was an appearance of a considerable quantity having been recently discharged; she was still in very low condition, but the man in charge described her as much improved since the discharge had commenced, and stated that they had had even worse cases that had entirely recovered under the same treatment.

On No. 4 being turned out, we went into the hot room to see No. 5 in the bath. We were

informed she had been about an hour and a half in, had been eight days under treatment, and as we were able subsequently to satisfy ourselves, had scarcely a trace of disease about her, and the next day was to be returned to the herd cured. She seemed quite to enjoy her position, the perspiration was rolling off her freely, and her breathing was slightly quickened. She carried her head erect, her eyes clear and healthy, and when she was removed to the outer room to get her douche bath, no one could mistake the feeling of refreshment and pleasure that the dashing of each successive bucket of water over her seemed to give, and when she had been slightly rubbed down she was turned out to graze, the day being fine and warm. but when otherwise there is a shed close by into which the animals are turned after leaving the bath, to let them further cool and dry before being allowed out.

The last case, No. 6, was a fine cow that had been about a week under treatment, but had been neglected for some time before being brought to the bath, and was quite in a hopeless state, breathing hard and in pain, and on examination we found that she was suffering from a complication of diseases other than lung distemper, as we ascertained that the air was circulating freely through both lungs, and we further ascertained that one of her most urgent symptoms, constipation, had been for two or three days entirely unattended to.

We next proceeded to the farm of Mr. Forest, one of whose cows we had seen under treatment at the Blarney bath, and for whom Doctor Barter had last winter put up in the end of a small outhouse a simple bath, which had cost him six pounds. This bath is similar in construction to the others we have described, but too small and faulty in its ventilation; for these reasons, since Mr. Jefferies' bath has been opened, he prefers, with his landlord's permission, sending any cows he may have in distemper, of which he seems to be never quite free, to the Blarney bath. Here we were shown two cows which, by all the persons who had seen them early last spring, are considered to illustrate the extraordinary curative power of the bath beyond any of which we have yet spoken. They were described to us to have been in a far worse state for a considerable time than the cow No. 4 mentioned in our description of Mr. Jefferies' bath. We saw both grazing with the rest of the dairy stock in full milk; one was in perhaps the best condition of any cow in the field (about 25 in number) and the other a heifer that had had her first calf at two years old, and was, in consequence (independently of her severe ordeal of last winter) in low condition, but healthy, with a clear eye and a smooth coat.

We next proceeded to Mount Desert, the residence of Nicholas Dunscombe, Esq., who this year holds the office of high sheriff of the county. Here we were shown a very elegantly constructed bath, which he and his whole family use constantly, and attached to it a box or stall heated by a flue carried from the adjoining bath, in which he is in the habit of treating any of his horses in sickness as well as those he wishes to improve in condition or general health. There has been a good deal of distemper going among horses in the district for some time past, and he informed us he had treated several in the course of the last spring with the bath alone, with entire success. One of his carriage horses had been attacked very severely about four or five days previously, and when we arrived was actually in the bath; the door was opened for us to see him, and we found him, as in the case of the cow at Mr. Jefferies', with the perspiration rolling off him, and evident marks about his nostrils and throat of the violence of the attack: but the groom stated that for the previous two days he had been on the mend, and expected that two or three more days of the bath would perfect his cure.

Mr. Dunscombe further mentioned to us the case of a favourite setter dog that a short time before had got a bad attack of distemper, and with it a lameness in the shoulder, for which he could not account. He treated him with the bath, and after the third day a surfeit of boils broke out under the shoulder and on other parts of his body, and he rapidly got better, and in ten days was perfectly well.

One circumstance is worthy of remark, which applies to all the animals treated in the bath and testified to by the men in charge of the four different baths we were shown, namely, the evident pleasurable recollection the bath seems to leave with them; all the different animals, horses, dogs, cattle, and pigs going of their own accord to the door of the bath, and dogs particularly indicating their anxiety by waiting at the door whining till it is opened, and then running in.

This finished our inspection, and we now beg to submit to your council the conclusions at which we have arrived from the above facts and the information we were able to obtain in the course of our inquiries.

First, the proportion of deaths to recoveries in the treatment of cattle distemper with the Turkish bath does not appear to exceed one in ten, while the proportion that has been hitherto usual under other forms of treatment has varied from one death in 3 to 1 in 4 of the cattle attacked.

Secondly, That the constitution is not impaired by the treatment with the bath as it is by any of the other systems with which we are at present acquainted; and that this fact is particularly illustrated by the rapidity with which, in every case, the milk almost immediately returns on the animal being relieved from the disease.

Thirdly, That in the treatment of several of the well known serious diseases of the inferior animals, its use has been attended with the most favourable results, and particularly in all inflammatory diseases of the internal organs.

In conclusion, while we are far from thinking that a subject of such vast importance could be satisfactorily investigated in the very limited time we were able to devote to it, we nevertheless feel that we have seen and heard quite enough to warrant us in commending the subject to the calm and serious investigation of those most vitally interested in the subject; and as a favourable opportunity will occur in the course of the next month, when the annual show of our society is to be held in Cork, within a few miles only of the spot where we have been witness to the results above described, we would strongly urge all parties interested to go and see, and judge for themselves.

We would also suggest to your council that much public interest and curiosity would be gratified by their accepting the offer some time since made by Dr. Barter, to put up a bath in the show yard at Cork and exhibit the working and construction of it, and that the council do offer a sum of £20 to Dr. Barter to defray a portion of the expense of so doing, and we would further suggest that Dr. Barter should be requested by your council to deliver on the morning of the first day of the show, before the public are admitted into the show-yard, a popular lecture on the use of the Turkish bath in the treatment of the diseases of the inferior animals.

Lois Weedon System of Wheat Culture.

We referred to the Rev. Mr. Smith's system of cultivating wheat at Lois Weedon, Northamptonshire, England, in our last. The following concise sketch of his operrations is from an article on the "Principles of Manuring," in a late number of the London *Farmers' Magazine*:—

"As a means of illustrating both the principles and practical bearings of this celebrated controversy, it is impossible to select a more opposite, instructive, or important instance than that presented by the well-known agricultural triumph in successive and un-manured wheat-growing achieved by the Rev. Samuel Smith, at Lois Weedon. The manner of his yearly cultivation is as follows: At the usual time in autumn, the seed is drilled in strips, which (consisting, as each set does, of three rows ten inches apart) occupy thirty inches in width, and between strip and strip there is left an unseeded space of similar dimensions. During the growth of the plants in the ensuing season, the rows receive sedulous attention in hand-hoeing; while, at the same time, the interspace between strip and strip undergoes a constant succession of horse-hoeing and other fallow operations. Next year these fallowed spaces bear the strips, and the stubble of the preceding year's crop is plowed and summer-fallowed in like manner. In one point of view, there is a perfect analogy between this expedient and a practice not uncommon on the heavy land of Essex, in which is pursued field by field the simple alternation of corn one year and bare fallow the next, to be again succeeded by corn, and so on for ever; but in various circumstances of detail, into which we shall not here enter, the Lois Weedon method possesses a superiority very favorable to both healthy and prolific cereal productiveness. Mr. Smith's experience in this mode of management dates back to the year 1846. The area of his operations is comparatively small, being only five acres. The soil is above average quality, and consists of a staple of good wheat land, resting on wholesome clay, and naturally dry. The implement used for inverting the soil is the spade, or fork, in place of the plow. The average yearly produce for twelve years, ending with crop 1859, has been upwards of thirty-six bushels per acre of prime marketable wheat; and the expenses of tillage, rent, &c., are as follows:

	£	s.	d.
Digging and cleaning	1	14	0
Horse-hoeing, three times	0	6	0
Plowing	0	4	6
Hoeing and hand-weeding	0	5	0
Three rollings with crusners at seed-time and at spring	0	3	0
Two pecks of seed	0	2	6
Dibbling	0	5	0
Bird-keeping	0	4	0
Earthing-up wheat	0	3	0
Reaping, &c., thrashing, and marketing	1	13	0
Rent £2, rates and taxes 4s. 3d	2	4	3
Total yearly expenses	£7	3	9
Value of thirty-six bushels of wheat at an average price of 6s. 6d. per bushel	£11	14	0
Deduct expenses as above	7	3	9
Annual profit per acre besides the value of the straw	£4	10	3

One other element of Mr. Smith's practice still remains to be stated, (and on account of its paramount importance it has been reserved for special notice,) namely this, that in each summer fallowing of the interspaces a method of deep cultivation is pursued, by which the upper and under stata of the staple are stirred, and inverted to the depth of ten or eleven inches; and if it be asked upon what grounds was this trenchant and very thorough tillage resorted to, the reply is, because theory and practice alike assured the experimentalist—1st, that usually in the soil, and ever in the air, there is abundance of nutriment for cereal crops, in proportion as the mineral and atmospheric elements are brought into mutual reaction within the pores of the soil, by perfect cultivation; and hence, 2dly, that by means of perfect tillage,

the aid of adventitious fertilizing substances is not indispensable to the profitable growth of corn.

In point of agricultural importance, no industrial circumstance belonging to the present century is more entitled to deep consideration, than this brilliant, yet sound instance of tentative husbandry; nevertheless, in order to appreciate its true practical value, it is necessary to bear in mind, that as respects the happy combination of operative details of which it is made up, it consists of no principle or expedient in cultivation which had not been known and practiced before. As an example of cereal productiveness, procured without the intervention of cattle crops, what other unalternate system than this prevailed in England, when, prior to the introduction of roots and clover in rotation, she not only fed her own population with corn, but exported it largely to foreign parts? Nay, more—what other than this, is the still existing policy in the cereal countries of continental Europe, which now so largely provide England with breadstuffs. As for the *interculture* of the Lois Weedon method, admirable and efficient as the expedient is, it can be regarded simply as an adaptation to corn tillage of that method of drill husbandry hitherto confined in general practice to the fallow crops only; while finally, the deep working, if not so generally prevalent as it ought to be, has long existed in many of the best-farmed districts of the island.

Now, the moral we wish to point out, in the foregoing statement, is this—that, from the case where, under sunny skies, and on a rich soil, the lazy husbandman has only to scratch a little covering of earth over his corn seed to produce an abundant crop, up to the elaborate processes of Lois Weedon experience, there is every variety and degree of evidence to show that wheat or any other kind of grain can profitably be raised by the power of tillage alone, and that the use of manures, whether obtained from the cattle crops of modern rotation husbandry, or from external resources, is not indispensably necessary to profitable cereal husbandry. Nay, more—from the practice of all nations it is deducible, that in proportion (within certain bounds) to the greater depth to which a soil is stirred, and to the perfect annual tillage it receives, the produce of that soil will be more abundant.

The Provincial Exhibition.

We take the following detailed description of the "Crystal Palace," and of the other works, now in progress of completion for the exhibition, from the Hamilton *Banner*. The description accompanied an engraving of the Palace, which appeared in that paper:—

"The Palace is being erected on the site selected by the City Council, which fronts on King Street West, and extends to York Street. It commands a splendid view of the city, the bay, part of Lake Ontario, and of the surrounding country. There is probably no site in the Province finer than that chosen for the Hamilton Crystal Palace. The building will be of wood and glass, upon a permanent stone foundation. The entire area of the building is about 36,000 feet. The ground plan is octagonal in form, having four transepts. The building will be two stories in height; the first story 16 feet in the clear, and the second 15 feet to the line of the eaves, with an arched roof of light appearance. At the intersection of the cross, is an octagonal space 76 feet in diameter, and 54 feet to the line of the roof, this portion is also arched in a most substantial manner: the roof will be surmounted with a cupola. The extreme height from the ground floor to the top of the dome is 100 feet. A flag staff 25 feet is raised above the dome. The length of the building is 171 feet, by 71 feet in width, and contains about 24,000 feet on the ground floor. There are four galleries, 54 feet wide by about 64 feet long, with a corridor running round the centre octagon, connecting all the galleries; these galleries contain about 12,000 square feet; four spacious stairways lead from the ground floor to the galleries. The diagonals which form the octagon are only to be carried up one story, with flat tin roofs—access to which can be obtained from the galleries, affording a fine place for a promenade, and a beautiful view of the city and bay. One of the galleries will be fitted up especially for the exhibition of fine arts—three sides of which are to be close-boarded, and the light to be admitted through the centre of the roof by a lantern-light extending the whole length, the glass to be frosted, or obscured in order to diffuse a mellow light. The whole of the glass throughout the building is to be frosted. All the windows in the building are to have semi-circular heads with cut trusses under the same. The whole of the wood work, in the exterior as well as interior, is to be planed or wrought, together with the cornices; these cornices are to be supported at intervals with fine cut brackets. The building is to be painted outside with a warm light color or stone tint, in oil, and it is intended to paint the interior in fresco. The dome is to be covered with tin, which will render the building picturesque, and be seen a distance of several miles around. The gallery flooring is to be dressed and laid open, and the under side of the galleries lined with dressed boarding, to prevent the dust rising.

The building was designed by, and is being erected under the superintendence of Mr. A. H. Hills, architect, of this city. The contracts for the erection of the building are Mr. J. Taylor, for mason work; Messrs. R. Gordon & W. & R. Chisholm, for the wood work; Mr. George Smith, for the tinner's work, and Messrs. Fitzpatrick & Brother, the painting and glazing. The cost of the building will be about $14,000. It is to be entirely completed by the first of September next.

In addition to the Palace, the Exhibition Grounds will be attractive of themselves. The space occupied is about 20 acres. The whole is enclosed by a close board fence, 8 feet high, with large entrance gates, one at the corner of King and Locomotive streets; and another on Locomotive, fronting Little Main street. The offices for the use of the respective Committees are at the extreme North East corner of the grounds. Here the principal Ticket Office will be located, and several small gates will give admission to the grounds. The King Street front is entirely occupied with stabling, all being separate stalls but two, which are double. There is sufficient room for 100 horses, with half-doors to admit of ventilation, and give visitors a chance of seeing the horses in their stalls. The stables are sufficiently roomy and airy, besides having a good shingled roof and flooring of three inch plank. The cattle sheds will hold about 270, each stall holding three, and being secured with bars. The sheep and pig pens are now in course of erection at the west side of the grounds; they will be covered over with a board roof. The building for the reception of manufactures in metals, machinery, &c., has not been commenced yet, nor the enclosures for the poultry. When completed, the accomodation will be found sufficiently ample, and the arrangements all that could be desired. It will certainly be an ornament to our city, and the grounds will soon become one of our most favourite resorts."

Patents of Invention.

From a list of Patents granted for a period of fourteen years, in the *Canada Gazette* of July 14, we select the following as relating to Agricultural operations:—

Samuel Tuck, of the Town of Sherbrooke, in the District of St. Francis, Iron Founder, for "A new and improved cast-iron Ploughshare with Steel point,"—(Dated 12th January, 1860.)

Charles Horatio Waterous, of the Township of Brantford, in the County of Brant, Machinist and Iron Founder, for "An improvement in the application of Steam Power and in the manner of making such application for the purpose of moving and working Steam Ploughs, Steam Fire Engines, &c., &c.,"—(Dated 27th January, 1860.)

Hugh McLaren, of Lowville, Township of Nelson, County of Halton, Founder, for "An improved Straw Cutter,"—(Dated 9th February, 1860.)

Gideon Huntington, of the Township of North Norwich, in the County of Oxford, Iron Founder, for "A certain Gang Plough, Cultivator and Sowing Machine combined,"—(Dated 9th February, 1860.)

John Y. Lambert, of the Township of Fullarton, in the County of Perth, Carpenter, for "An improved washing Machine,"—(Dated 18th February, 1860.)

Andrew Mulholland, of the City of Quebec, Brass Finisher, for "A vertically rotating and Stationary Break Churn,"—(Dated 24th February, 1860.)

James Cinnamon, of the Village of Oshawa, in the County of Ontario, Wood Turner, for "An improved Washing Machine,"—(Dated 27th February, 1860.)

Samuel Tuck, of the Town of Sherbrooke, Iron Founder, for "A new and useful manufacture, styled, Tuck's Cast Iron Sugar Boiler,"—(Dated 2nd March, 1860.)

Thomas A. Jebb, of the Township of West Gwillimbury, in the County of Simcoe, Lawyer, for "An improved Churn,"—(Dated 7th March, 1860.)

Thomas Scott, of Newburgh, in the County of Addington, Blacksmith, for "A new Cultivator,"—(Dated 7th March, 1860.)

Arnold Gage, of the Township of Burford, in the County of Brant, Yeoman, for "An improved Churn,"—(Dated 13th March, 1860.)

David Lusk, of the Village of Newmarket, in the County of York, Carpenter, for "A Blower for cleaning Grain,"—(Dated 13th March, 1860.)

Mathew Henry, of the Township of Campton, Cabinet-Maker, for "A useful manufacture styled Henry's Concave Sugar Boiler,"—(Dated 19th March, 1860.)

William Fraser Cochrane, of the Village of Port Bruce, in the County of Elgin, Engineer and Millwright, for "An Atmospheric Flour Bolting Chest,"—(Dated 27th March, 1860.)

Charles Holmes, of the Town of St. Catharines, in the County of Lincoln, Miller, for "An improved Grain Separator,"—Dated 27th March, 1860.)

John Brokenshire, of Bowmanville, in the County of Durham, Pump Maker, for "A double action wooden Suction Pump,"—(Dated 27th March, 1860.)

Michael Walsh, of the Town of Perth, in the County of Lanark, Laborer, for "An improved Churn,"—(Dated 27th March, 1860.)

Samuel V. Perry, of the Township of Ernestown, in the County of Addington, Mechanic, for "A new and improved Machine for Thrashing, Separating and Cleaning Grain,"—(Dated 29th March, 1860.)

William Holton, of the Township of Harwich, in the County of Kent, Laborer, for "An improved Mould-Board for Ploughs,"—(Dated 10th April, 1860.)

Samuel Hulbert, of the Town of Prescott, in the County of Grenville, Founder, for "An Air Pump dash Churn,"—(Dated 19th April, 1860.)

Joseph Patching, of the City of Hamilton, in the County of Wentworth, Brakesman, for

"A new article styled "Patching's Car Ventilator,"—(Dated 19th April, 1860.)

Thomas Thorpe, of the Town of Guelph, in the County of Wellington, Joiner, for "An Air tight out-lifting Spring Sash window,"—(Dated 19th April, 1860.)

Henry Fryatt, Junior, of the Village of Aurora, in the County of York, Carpenter, for "An improved Method of Opening and Shutting Gates,"—(Dated 19th April, 1860.)

William Henry Magee, of the Village of Merrickville, in the County of Grenville, Iron Founder, for "A new Method of constructing Ploughs,"—(Dated 19th April, 1860.)

Joseph Jessup Macintosh, of the Township of Yonge, in the County of Leeds, Miller, for "A Grain Separator, styled "Macintosh's Patent Flue Grain Separator,"—(Dated 29th April, 1860.)

Robert Walker Grant, of the Town of Brockville, in the County of Leeds, Tin Smith, for "An improved Churn, styled "Grant's Excentric Double Dash Churn,"—(Dated 29th April, 1060)

Philip Cady Van Brocklin, of the Town of Brantford, in the County of Brant, Iron Founder, for "A combined Seed Drill Cultivator and Horse Hoe,"—(Dated 29th April, 1860.)

Josiah James, of the Township of Whitchurch, in the County of York, Machinist, for "A universal Joint Walking beam for churns, and other Machinery."—(Dated 29th April, 1860.)

Joseph Millard, of the Village of Newmarket, County of York, Cabinet Maker, for "A screw regulating Cheese Press,"—(Dated 11th May, 1860.)

Hugh Sym Campbell, of the City of Toronto, County of York, Contractor, for "An improved Churn,"—(Dated 11th May, 1860.)

Horace A. Combs and Ashman P. Combs, both of the Village of Ontario, County of Wentworth, Yeomen, for "An improved double acting Churn,"—(Dated 11th May, 1860.)

John C. McDougal, of the City of Toronto, County of York, Machinist, for "An Octagonal Churn,"—(Dated 11th May, 1860.)

John I. Shotwell, of the Township of Yarmouth, County of Elgin, Carpenter and Joiner, for "The Excelsior Churn,"—(Dated 29th May 1860.)

John Bernard Robinson, of Drummondville, County of Welland, Miller, and John Jago, of Mulmur, County of Simcoe. Millwright, for "An article styled the Robinson and Jago improved method of Bolting Flour,"—(Dated 30th May, 1860.)

Alanson Harris, of the Village of Beamsville, in the County of Lincoln, Founder and Machinist, for "A combined Corn Sheller and Root Cutter,"—(Dated 30th May, 1860.)

Joseph St. Germain, of the City of St. Hyacinthe, Maker of Agricultural Instruments, for "A Balance Wheeled Horse Rake,"—(Dated 1st June, 1860.)

Adulteration of Guano.

The *Irish Farmer's Gazette* of July 7th publishes a lengthy report of a case just disposed of at the Police Court in Dublin, showing the extensive frauds practised in the manufacture and sale of Artificial Manures. There is but little sale yet for guano or other artificial manures, except gypsum, in this country, but this and similar exposures show the necessity of farmers making sure that they get the genuine article, when they do resort to manures of this character; which will doubtless soon be the case to a much greater extent than heretofore. The *Gazette* says :—

"This matter is one of the greatest importance to agriculturists, and we believe our readers will all rejoice when they learn that the Crown has stepped forward in this manner to protect the public against those who are engaged in the nefarious trade of compounding materials, which they vend under the name of guano, and by means of which such enormous frauds have been perpetrated. Too much praise cannot be awarded to the crown officers for the steadiness with which they have prosecuted the inquiry during the last two years. A great blow has been struck against frauds, not only in the guano trade, but also in other branches of business; and the prosecution of this case will have caused dismay in the minds of more than the mere dealers "in yellow clay and oyster shells."

The particulars of the case give us the entire secrets of the trade. We have the parties engaged in it as agents stating the prices at which they sold "the stuff," namely, £14 10s. per ton although it would appear from the evidence of one witness, that even this sum was not sufficient at first to satisfy the rapacity of the compounders. Then we have a graphic description given by more than one witness of the different marls used, with the seasoning of "gypsum salt, and burned shells;" again, we have the evidence of the parties employed in the actual work, and what they did "when they wanted to rise a smell;" next appear on the stage the very individuals who have been fortunate enough to find the Chincha Islands on their own farms then, again, the active police officers describe how they watched the progress of what one witness innocently terms "trying experiments for making manure;" and finally we have the crushing evidence of Dr. Apjohn, who proves that this very satisfactory "manure," sold as Peruvian guano, and at the price of Peruvian guano which gave good crops, "magnificent crops" was worth only £4 16s., instead of the £14 10 which was so very modestly charged for it.

This prosecution has given us more than usual pleasure. For years past we have been warning the farmers of Ireland that vast quantities of adulterated guanos were being annually sold under the pretence of being genuine, and have repeatedly urged the necessity of active steps being taken to protect the poorer and

intelligent part of the community—those who were not in the habit, perhaps, of seeing such warnings, although well able to pay for the medium through which they were conveyed, as well as those who could not be expected to profit by them. We have endeavored to impress upon all the propriety of having samples of the artificial manures which they purchase analysed, from whatsoever source such might be derived; and we have told farming societies that it was a part of their duty to protect their members, and the districts which formed the scene of their operations, by having recourse to the aid afforded by the professional chemist. The case of the Crown v. Creaghs—forming only one out of the many which will be brought forward—shows that our warnings were not uncalled for, and we trust will be a lesson inculcating caution for the future. As yet the case has only reached its preliminary stage—an important stage, no doubt, but still not the most important; and considering the interests which are at stake, and the injury which has undoubtedly been committed on the public at large, we trust we will not be considered as interfering with the course of justice if we express a hope that, should the parties be ultimately convicted, they will be as severely punished as the law of the land will allow.

Correspondence.

Wine Culture in Canada.

EDITORS OF THE AGRICULTURIST—With great pleasure I notice in your last issue some communications on the subject of wine growing in Canada. The subject is not altogether new to this locality. Three years ago four or five barrels of wine were grown from a single vine in one season in the Township of Grimsby. The grape is a native, and the wine very much resembles port, so much so, that persons tasting it for the first time frequently speak of the similarity. It is perfectly hardy and stands our coldest winters without in the least destroying its vitality. I obtained a vine six years ago last spring, it now covers some forty feet square of trellis and I think has at least twelve hundred clusters of grapes. The clusters are about the size of the Clintons. The wine sells in this locality for one dollar and three quarters per gallon, and probably would bring more if we asked it, at all events it is worth four times as much as the miserable stuff generally sold by our merchants under the name of wine. We intend to show our wine at the Provincial Fair this fall, and hope the judges will publish their opinion of the same. We have in this part of Canada a number of the new native grapes, a good representation of which will no doubt find their way to the Provincial Fair this fall; and I advise all who feel an interest in this important branch of our agriculture to keep their eyes wide open, as they will be likely to see many things in this department that will surprise them. We have open air grapes that will vie in size and flavor with the far farmed black Hamburgh, and I think there is not the least reason to doubt but that we can grow wine in any quantity and of excellent quality. I have grapes that will measure to-day over two inches in circumference to the single berry, and number over fifty berries to the cluster. I fear that I am trespassing too much on your time and patience, but if you think these few thoughts likely to benefit your readers you are at liberty to publish them. If these remarks meet your approbation, I may give you some more of my notes on horticultural matters. JOHN C. KILBORN.

Beamsville, C.W., July 23, 1860.

[We are much obliged to our correspondent for his interesting communication, and hope that others who are in possession of similar facts will let us have them.—ED.]

Things Seen, Heard and Thought of.

EDITORS OF THE AGRICULTURIST,—I will record several things—first, what I have *heard;* secondly, what I have *seen,* and thirdly what I have *thought.* As to what I have heard. Mr. James Scrogie, of the Township of Binbrook, has made some 900 yards of underground drain, 250 yards of this passed through a low wet portion of his farm, where he had lost in part several crops of grain on account of the superfluity of surface water. He has reaped two crops since he made the drain; the first of these crops consisted of *corn* and *potatoes* and gave a splendid yield. He took the *first prizes* both on corn and potatoes at the agricultural show of the four townships, viz: Barton, Glanford, Saltfleet and Binbrook. Last harvest he reaped from the same land a crop of barley which yielded 57 bushels to the acre. So much for underground drainage. Farmer Kemp, whose farm adjoins mine, informs me that he last year gathered 150 bushels of barley from two acres of land.

As to what I have *seen.* I have generally observed among all kinds of grain that few are pure. A mixture of kinds seems by some means to take place. I sowed a year ago last fall what is called the blue-stem wheat, and last harvest I found that there were five varieties. Among these was a wheat, with a stout straw of a rather yellow tinge, a fine medium sized head, thickly set with grain with white chaff, and yielding more abundantly than any of the other varieties in the field. I gathered a handful of it, and planted it in the garden, and had the midge let it alone it bid fair to have given an extra yield. May we not often discover new varieties of a superior kind by thus going through the field and making a selection of the earliest and finest varieties?

A word as to what I have thought. We have our agricultural shows, at which exhibitions of taste and skill and success in all the arts and

sciences, and handy works of man, are set forth in all their splendor, much to the satisfaction, pleasure, and profit of the community. Then we have our plowing matches; and I have thought it would be wise for our county agricultural associations to get up a *draining match*, and that four handsome prizes be awarded to the men who shall dig the drain one hundred feet long, lay the pipe and fill it in, and do it the best and the quickest; that is to say, each man shall dig and lay the pipe 100 feet. As I have taken the writing of this for a noon-spell I must now bring it to a close. STEPHEN KING.

Ryckman's Corners, July, 1860.

Trial of Mowing Machines.

EDITOR AGRICULTURIST.—As duly announced, the trial of Mowing Machines under the direction of the West Durham Agricultural Society, came off in this place last week. There were seven machines at work.

After a thorough test, both as to manner of cutting and lightness of draught, the Judges were unanimous in awarding the first prize to H. A. Massey, Esq., and the second to Messrs. Patterson & Brothers of Richmond Hill.

We can assure manufacturers, that if they want to dispose of their machines or bring them into notice, they should attend these matches. Farmers attend expressly to see them work, and make up their minds accordingly.

At the trial of Reapers which comes off some time next month, and of which due notice will be given, we expect to have a very large attendance. As has been before stated, it is not the amount of prize, for that is small, that has induced manufacturers and others to attend these trials and the society to hold them, but that, as many farmers in the county are yearly buying machines, it gives an opportunity for them to buy those which they may think, after a trial, will suit them best. E. A. M'NAUGHTON,

Newcastle, July 27, 1860. Secretary.

Increase of Root Culture.

EDITOR AGRICULTURIST.—In looking over the last number of the *Agriculturist*, in first article, "Hints for July," we observe you taking notice of Mr. Fleming selling over 100 bushels of Swede turnip seed, a great quantity certainly for him, and we thought probably it might be of some interest to you to know what quantity we have sold in this section. We enclose you our circular of our importations for this season; the quantities are copied from the invoices and are correct to a few pounds, and we are happy to say we are nearly sold out. We have every prospect here of a most abundant harvest, and we think we might compete with the best counties in England and Scotland, for Mangels, Turnips, and Carrots. MURDOCH, BROS.

Bowmanville, July 25, 1860,

[We find from the circular above referred to that the Messrs. Murdoch had imported the large quantity of 8350 lbs. of the different sorts of Swede Turnip, 1250 lbs. of other kinds of turnip, 2100 lbs. of Carrot, 1700 lbs. of Mangel, and 200 lbs. of Rape seed. This statement shows that the increase in root culture must be much more general and extensive even than we had supposed, and affords a gratifying proof especially, which we are glad to be able to chronicle, of the improvement taking place in the agriculture of that section of the country.—Ed.]

Agricultural Intelligence.

FLAX PULLING AND RETTING.—Flax, when sown early, will be fit for pulling by the middle or end of the month (July); it requires much nicety to determine the time when it should be pulled. The fibre is in the best state before the seed is quite ripe; if pulled too soon, though the fibre is fine, it will be rendered unprofitable, by the great loss it suffers in scutching and hackling, and if pulled after the seeds get ripe the extra weight does not compensate for the coarseness of the fibre. The proper or most profitable time is, therefore, when the seed capsules are changing from a green to a brown hue, and the stalk yellowish for about two-thirds of its height from the ground; the flax should be caught by the puller just beneath the seed bolls, by which all short stems will be left behind; the handfuls should be laid across each other in a slanting direction, so that the person who ripples may take them up without confusion. The rippling should be performed at the same time or go on simultaneously with the pulling, and the flax carried to the water as soon as rippled. River or soft water is the best for steeping; the flax, after being bound in sheaves, should be placed in one layer, in regular rows, a little sloped, the head of each row lying on the root of that which preceded it, and covered close with thin, tough sods; as fermentation proceeds the flax will begin to rise, when additional weights should be laid on to keep it down; it requires 10 or 12 days steeping; it should be examined from time to time, every six hours after the fermentation subsides; try some stalks of an average size, by breaking it across in two places, about six or eight inches apart: catch the woody part, and if it pull freely out, leaving the fibre behind, it is ready to take out of steep; then place the bundles on their root ends, close together, to let them drain for about 24 hours and spread it out evenly and thin, on a clean short pasture; turn it repeatedly with a pole about 8 feet long and 1½ inch thick, and in about

from six to twelve days it will be fit for lifting, when it may be tied up in bundles, and if not soon to be scutched it may be put in small, loose stacks. Drying by fire is now exploded as being pernicious and destructive to the fibre, and if properly steeped and grassed exposure to the sun will make it ready for breaking and scutching.—*Irish Farmer's Gazette.*

Weeds.—*Weeds*, no matter whether found in the fields or by the ditch or road sides, give the idea of neglect and slovenly habits, and are a disgrace to the name of farmer: they impoverish the land, and rob the crops of that food which, in the shape of manure, often costs the farmer large sums; thereby reducing the quantity of produce, and rendering the corn crops difficult to harvest; for how often do we see the corn in the sheaf perfectly sound, and fit to carry, but cannot from the quantity of undried, succulent weeds bound up with it be brought to the haggard: and every day after the corn is fit for storing is a day of loss from exposure to the wind and wet and the ravages of birds and vermin, and at every handling it gets, the finest grain falls to the ground, and is for ever lost. Therefore, let the weeds be destroyed by hand-hoe, horse-hoe, scythe, and reaping-hook, using each implement where it is most appropriate before the weeds flower. By a little constant attention to these matters, the weeds, and the labour expended in their extirpation, will annually become less and less. The old adage of "one year's seeding saves seven years' weeding" should never be lost sight of. Weeds make a great addition to the manure and compost heaps, when cut at the time of flowering, and before they perfect their seeds; should the seeds be early ripe they should be burned: but the sooner they are handpicked or cut, the better, as they should be allowed to draw as little nourishment from the ground as possible.—*Ib.*

Horticultural.

Memoranda for August.

This is comparatively an easy month with the gardener. The planning and laying out grounds, sowing and planting, of spring and early summer being concluded, his attention is mainly directed to securing the proper growth, ripening and gathering of the vegetables, fruits, &c., which he has succeeded in establishing, till the more active operations of autumn commence.

The Kitchen Garden.—As the ground is cleared of early crops, some things may still be sown to advantage, such as winter radish, early turnips, and salads for fall use. Celery planted last month will require to be hoed occasionally, till grown of sufficient size for earthing, which is done with the assistance of boards, by laying them along the rows, to support the leaves while you are putting in the earth from the alleys, and removing them as you progress in the business. The earthing should never be done when the plants are wet, as this is apt to make the celery rusty, but should be performed gradually in fine weather as the plants progress in growth, repeating the earthing every two weeks; at which time care should be taken to gather up all the leaves neatly, and not to bury the hearts of the plants. Celery for winter use may be planted in the trenches as late as the middle of August, and if well watered and attended to will produce good roots.

Early planted cauliflowers will now be coming into flower. As soon as they show the flower, they should have a few of the leaves turned down over it, to prevent it turning brown, which would injure the quality materially, and in order that the heads or pulps may be compact. As the value of cauliflower depends greatly upon *the manner in which it is cooked*, the following directions from Bridgeman will not be out of place:—

"Cauliflower, and also Brocoli, should be gathered while the pulp is close and perfect. After having trimmed off some of the outside leaves, *let them be boiled in plenty of water* seasoned with salt, taking care to skim it, and also to ease the cover of the pot so as not to confine the steam. Take them up as soon as the fork will enter the stems easily, which will be in from ten to twenty minutes, according to their size and age; drain them so as to make them susceptible of absorbing a due proportion of gravy, melted butter, &c. This renders them a palatable and dainty dish."

The Flower Garden.—The work to be done this month will be very much the same as for the last, in regard to keeping the ground clean, tying up plants, &c. The following directions from Buist's "American Flower Garden Directory" on the budding of roses, are just in season:—

Of Budding or Inoculation of Roses.—According to what we have previously hinted in regard to having roses as standards, where such are desired, the month of July or August is a proper time for the operation of budding. The kinds to be taken for stocks should be of a strong, free growth; such as *Manitta, Maiden's Blush, R. Canina*, and frequently the *French Eglantine* are taken. Be provided with a proper budding-knife, which has a sharp, thin blade, adapted to prepare the bud, with a tapering ivory haft, made thin at the end, for raising the bark off the stock. For tyings, use

bass strings from Russian mats, which should be soaked in water to make them more pliable. The height of the stock or stem at which the bud is to be inserted, is to be determined by the intended destination of the tree (as it may be properly called.) Choose a smooth part of the stem, from one to three years old. Having marked the place, prune away all the lateral shoots about and underneath it. With the knife directed horizontally, make an incision about half an inch long in the bark of the stock, cutting to the wood, but not deeper; then applying the point of the knife to the middle of this line, make a perpendicular incision under the first, extending from it between one and two inches. Having a healthy shoot of the growth of this year provided of the kind that is desired, begin at the lower end of this shoot, cut away all the leaves, leaving the footstalk of each. Being fixed on a promising bud, insert the knife about half an inch above the eye, slanting it downward, and about half through the shoot. Draw it out about half an inch below the eye, so as to bring away the bud unimpaired with the bark, and part of the wood adhering to it; the wood now must be carefully detached from the bark. To do this, insert the point of the knife between the bark and wood at one end, and, holding the bark tenderly, strip off the woody part, which will readily part from the bark, if the shoot from which the piece is taken has been properly imbued with sap. Look at the inner rind of the separated bark, to see if that be entire; if there be a hole in it the eye of the bud has been pulled away with the wood, rendering the bud useless, which throw away; if there be no hole, return to the stock, and with the haft of the knife gently raise the bark on each side of the perpendicular incision, opening the lips wide enough to admit the prepared slip with the eye. If the slip is longer than the upright incision in the stock, reduce the largest end. Stock and bud being ready, keep the latter in its natural position; introduce it between the bark and the wood of the stock, pushing it gently downwards until it reaches the bottom of the perpendicular incision. Let the eye of the bud project through the centre of the lips; lay the slip with the bud as smooth as possible, and press down the raised bark of the stock. The bud being deposited, bind that part of the stock moderately tight with bass, beginning a little below the incision, proceeding upward so as to keep the eye unoovered, finishing above the incision. In a month after the operation, examine whether the bud has united with the stock. If it has succeeded the bud will be full and fresh; if not, it will be brown and contracted. When it has taken, untie the bandage, that the bud may swell, and in a few days afterwards cut the head of the stock off about six inches above the inoculation, and prevent all shoots from growing by pinching them off. This will forward the bud, which will push and ripen wood this season; but it must be carefully tied, as it grows, to the remaining head of the stock. Some do not head the stock back til the following spring, thereby not encouraging the bud to grow, which, if winter sets in early, is the safest method.

Cold Vineries.—Attend to thinning the fruit in houses intended to furnish a late supply, and see that the bunches are severely thinned, and also that the crop left is not too heavy in proportion to the strength of the vines. When the fruit is swelling be careful to maintain a moist state of the atmosphere, and give every possible attention to the roots, keeping the border in a healthy state as to moisture, and if watering is found necessary, use good strong manure water. Give abundance of air when the fruit is coloring, and do not allow plants in pots to remain in the house to cause damp which despite every care in ventilation, is apt to settle on the berries and spoil the bloom. When the fruit is ripe and expected to hang for some time, the atmosphere of the house should be kept as cool as possible. J. F.

A New Mode of Propagating.

A correspondent of the London *Gardener's* Chronicle of May 12th states that he has discovered a means by which he is enabled to strike and grow an almost incalculable number of plants in a very small space, without a atom of soil of any kind.

He says:—"I am not aware that this mode of propagation has ever been made known by any other person, so that, if you think it worth of notice, you will do me a favor if you will give it publication. I also further beg to state, that my striking apparatus is simple, portable, and my own invention; and I need not explain to you that it is on strictly scientific principles founded on the organic structure of plants. After the cuttings are probably struck, a little moss is tied round them; they will keep for a month in that state."

The Editors of the Philadelphia *Gardener's* Monthly, referring to this and other communications on the subject, says:—

"In one of our first numbers, the secret came out that there was no more difficulty in striking eyes of Native than of Foreign Grapes, *provided*, after they were cut ready for planting they were suffered to lie mixed with damp moss for two weeks in a place secure from drying. Here they form a slight callosity, and when planted *all* grow. This hint we have reason to know has been extensively acted on, and thousands of dollars have been made through the

mation thus given. The hint, also, given by er of our correspondents, about leaving cut- gs of such things as Cotoneasters, Prunuses, , in dark cellars in dry moss, when they ild push roots freely,—the accounts of strik- in Sphagnum moss, and many other details practice and observation, have all pointed clusively to one great principle, namely, that *llus can be formed in any cutting before ng put into the soil,*' and where that is cted, it can readily be made to root.

t is, in fact, now become well known to e—we may say many—of our most skilled pagators, that all cuttings can be made to ous, and then be made to grow. Apples, ches, cherries and plums, are now freely ck by several in our immediate vicinity from ings, and many kinds of trees once thought ossible to propagate in that way, are now ed so very freely.

n our own experiments, we have found a com- preserving bottle excellent for callousing cuttings. A sponge is pushed tightly into bottom of the bottle, and water poured on. n all the water is drained out that will go by inverting the bottle, and the cuttings ed loosely in. No cork is placed in the le, and evaporation takes place slowly and cutting soon forms the desired callus.

he whole secret, in fact, is in allowing free ss of air to all parts of the cutting, at the time taking care that *evaporation shall e so excessive as to dry up the cutting.*"

E PEAR BLIGHT.—A correspondent of the *al New Yorker*, writing from Hamilton, ., offers the following suggestion as a pre- ve of the Pear blight, which has effected oung trees in that section badly. He is ble to give any remedy for those already ed:—

About the middle of Septemeer, or as soon as the leaves at the ends of the twigs begin ume a brown, withered appearance, let all oung wood of that season's growth be cut one half, let the sap bleed for a day or two, hen paint each cut end with a solution made m shellac dissolved in ether. This will dry, forming a hard coat over the wound, will stop the further flow of sap, and re- e ingress of air or moisture. The sap will flowing, the tree will assume its dormant and when hard frost comes the sap vessels ot be able to become ruptured, or the sap ."

OFITS OF FRUIT.—In the *N. E. Farmer*, on is made of the Messrs. Clapp, of Dor- r, Mass., who, Col. Stone says, by syste- culture, raised each year, on five acres of planted with apple trees, $600 worth of ts as an under crop; while at the same hey had a large crop of the best apples. Their profits have been from $2,500 to $3,500 per annum.

THE SYRIAN GRAPE.—J. R. Gardner, writing to the Albany *Country Gentleman* from Mont. Co. Virginia, says:—"It will perhaps be news to some of your readers, to hear that the Palestine or Syrian grape ripened in the open air at Lynchburg, in this State, last year, bearing bunches three feet in length and twelve or fifteen inches broad. I procured a vine one year old last fall, which has stood the winter without any protection, and is now making a tolerable good growth."

THE ONION MAGGOT.—"An Experimenter" in a communication to the *Boston Cultivator*, says that he has succeeded in saving his onions from the depradations of the insect by sprinkling the ground plentifully with unleached ashes, and in case of dry weather, watering copiously, after the maggot had commenced its attacks.

WATERING PLANTS.—During the summer it becomes necessary to resort to artificial watering for garden plants, trees, &c., and it is a matter of considerable importance to perform this operation in the best way and at the right time; the chief object being to supply just as much water as the plants need and no more. To do this, notice their condition at the time of application. If trees, which have been transplanted in the spring seem to be inactive, and thus throwing off but a small amount of moisture, very little water is required; young trees especially are apt to remain three or four weeks after being set out, without making any growth, and to give them an abundance of water would cause them to remain dormant rather than to help their growth. In such cases it is best to use water but very little. Again, if a tree grows fast and draws most of the moisture from the soil, water should be given, but not upon the surface. Break the top soil, and let the water soak well into the ground and not run off or form a hard crust upon the surface.

In watering garden plants the operation often does more hurt than good. By applying it on the top a crust is formed, and if water is again poured upon this crust it immediately runs off or helps to make a thicker crust upon the surface. This keeps the ground dry and the plant makes but a poor progress. A better way is to make several holes in the plant beds, or small ones by the side of the plant and pour the water into them. In this way it gradually soaks into the earth and the moisture is easily obtained by the rootlets of the plant. It is indeed the only proper way of artificial watering.

Evening is the best time to water plants. The sun is not shining and the state of the atmosphere is usually moist, which prevents a ready evaporation. L.—*Country Gentleman.*

Veterinary.

Cattle Disease.—The Genesee *Farmer*, in reply to a correspondent who asks if there is no other remedy for the cattle disease than to kill all the cattle which have been exposed to it, says.—"We can give no opinion on this subject. If the disease can be arrested by the slaughter of all the affected cattle, it will be a great blessing—although it may appear a great waste of property. We were in England when the disease raged there some years ago. We have known several head of cattle to be badly affected in a herd; some of which recovered, and many others in the same herd were not attacked at all. We were on the farm of a large dairyman of Moreton Corbet, Shropshire, when the disease appeared the neighborhood. He immediately drenched all his cows with half a pound of Epsom salts, and a quarter of a pound of sulphur, and two ounces of spermaceti, dissolved in a quart or three pints (we are not sure which,) of warm water. His entire herd escaped, although the cattle on an adjoining farm were attacked and two or three died. We cannot say that the medicine he used was the cause of his escape, or that experience has shown it to be generally useful."

The Cattle Disease of Eastern New York.—The New York News states that the pleuropneumonia has made its appearance in several of the counties on the Hudson River. It says no less than twelve head of cattle have died of the fatal disease within the last few days at Vail's Gate, Orange County, and that Mr. Jacob Storms, of Southeast, Putnam County, has lost seven cows within the last two weeks. Other persons, in Carmel, in that county, have also lost several. If this is correct, it behoves the farmers of this State to be on their guard, but we suspect the truth is exaggerated. However, as "caution is the parent of safety," it may be well to be prepared for the epidemic.—*Rural New Yorker*, (7th July).

The Dairy.

Machine for Milking.—The *Scientific American* contains an engraving and description of a machine for milking cows, patented by L. O. Colvin, of Cincinnati, N. Y. The invention consists of an apparatus attached to the side of the *pail*, in which are two small pumps worked by levers, and which act upon the cow's udder through teat cups so arranged as to suit the size of any teat.

"The whole forms a compact, neat and durable milking machine, and, with pail, only weighs six and one half pounds. It has been used daily for eight weeks, and the inventor states it does not injure the cow in the least, and they stand quiet during the process of milking as if pleased with the operation. The time ever made with the machine was ten quarts of milk in one and three-fourth minutes being sufficient time and much less labor than by hand."

We have considerable doubt of the necessity for or applicability of such a machine, but notice it, as one of the instances of the inventive genius of our neighbors.

Poultry.

The Dorking Fowl.

This justly celebrated breed of fowls is very ancient origin, having been recorded in some ancient poultry books more than two thousand years ago. They are remarkable having five toes on their feet.

This breed is liable to degenerate if bred and in too closely, and the male bird should be changed every year, if it is desired to keep the stock to perfection. They have been ported to this country, and much used to cross with and improve our common barn-yard fowl but it is yet rare to meet with a Dorking on farms in this country, of pure and uncontaminated blood.

For general purposes, we think this breed best of the whole poultry tribe; and they are also hardy, and able to stand our cold winters.—*Genesee Farmer.*

Domestic.

Cure for Erysipelas.—Beat raw onions to a paste, and bind on the parts affected.

Plain Cake.—Two cups molasses; one sugar; one of chopped pork; three of flour one spoon soda.

White Wedding Cake.—One pound flour one of pulverized loaf sugar; three-fourths pound of butter; whites of ten eggs; two megs; oil of lemon.

To make Opedildoc.—Take the best soap, two ounces; gum camphor, one ounce alcohol, one pint—mix the soap with the and let them stand in a moderate heat until soap is dissolved, occasionally shaking the —then add the camphor, and continue to the vessel frequently until the soap is dissolved occasionally shaking the vial—then add camphor, and continue to shake the vessel quently until the whole is dissolved. Use sprains, bruises, and in rheumatic pains.

Clay Cups.—Three cups of sugar; one of butter; one cup of sweet milk; six two teaspoonfuls of cream tartar; one teaful of soda. The whites of the eggs beaten a froth, and flour added to make of the consistency.

AF CAKE.—Mrs. S., of Chautauque Co., ", inquires if some one will give her a recipe aking plain loaf cake with hop yeast. I give my plan:—Five pounds of flour; two gar; three-fourths of lard; three-fourths of er; one pint of yeast: six or eight eggs; quart milk: raisins and spice to your taste. e your dough as for bread, and after raising iently, work in the other ingredients. Put tins and raise again.

also give a receipe for molasses ginger- d:—One cup of molasses; one of cream: poon of ginger; one teaspoon of saleratus: ggs. Make as thick as common soft cake.— ., *Kalamazoo, Mich., May,* 1860.

NON CAKE.—Take one teacup of butter, three of sugar: rub them to a cream; stir them the yokes of five eggs, well beaten: lve a teaspoon of saleratus in a cup of milk, dd the milk; add the juice and grated peel e lemon, and the whites of five eggs; and n as light as possible four cups of flour.

NGER SNAPS.—One pint of molasses; one of ginger; one teaspoon of saleratus, boil e ingredients thoroughly. When nearly add as much flour as can be rolled into the ire, and cut very thin—M. C., *Benning- V. Y.,* 1860.

CHELOR'S CORN CAKE.—A pint of sifted meal, and a teaspoonful of salt; two tea- fuls of butter, and a cup of cream; two well beaten. Add milk till it is a thin batter, and bake in a quick heat, and it like pound cake.

MON OR ORANGE ICE CREAM.—Squeeze a lemons, and make the juice thick with : then stir in slowly three quarts of cream, freeze it. Oranges require less sugar.— *Wear.*

KLING SWEET APPLES.—To one half peck apples make a syrup of two pounds sugar, ne pint of vinegar. Boil the apples in rup until tender; then remove them, and a syrup of 2¼ lbs. of sugar and one pint gar. Add one teaspoonful of cloves, and cinnamon tied in a bag. Let the syrup 5 or 20 minutes; then pour it, while hot he fruit. The first syrup is good for other .

PREPARE CITRON FOR FRUIT CAKE.— nd steep the citron until soft, then add al quantity of sugar; dry them in a dish he juice is nearly dried out, then spread on plates and set them in a lukewarm oven y. Add a few drops of extract lemon, ey are ready for use.—Mrs. N., *Gouver- N. Y.,* 1860.

SED MUFFINS.—One pint of milk and two one tablespoonful of yeast and a spoonful t. Mix these ingredients with sufficient o make a thick batter. Let it rise four or ours, and bake in muffin rings. This you ld most excellent. TILDA.—*Rural New r.*

Miscellaneous.

A MOTHER'S LOVE.—Children, look into those eyes; listen to that dear voice; notice the feeling of even a single touch that is bestowed upon you by that gentle hand?—Make much of it while yet you have that *most precious of all good gifts—a loving mo*ther. Read the unfathomable love of those eyes; the kind anxiety of that tone and look, however slight the pain. In after-life you may have friends—fond, dear, kind friends—but never will you have again the inexpressible love and gentleness lavished upon you, which none but a mother bestows. Often do I sigh, in my struggles with the hard, uncaring world, for the sweet, deep security I felt when of an evening, nestling to her bosom, I listened to some quiet tale, suitable to my age, read in her tender and untiring voice. Never can I forget her sweet glances, cast upon me when I appeared to sleep, never her kiss of peace at night! Years have passed away since since we laid her beside my father in the old churchyard; yet, still her voice whispers from the grave, and her eye watches over me, as I visit spots so long since hallowed to the memory of my mother.—*Macaulay.*

AMERICAN ELOQUENCE.—As a specimen of the style of criticism in which some American writers indulge, we extract from an American paper the following, premising that the writer is a lady, and is criticising a magazine story. She says:—"I am so dazzled by a reading of the first number that I hardly dare express an opinion of it. So much splendour gives rise to distrust in my mind. Is there no redundance in all this blaze of glowing rhetoric—in this passionate outpouring of wildering words—in this sensuous eloquence of poetic fervour? I hope not; I hope all the glory of light in this unmetred poem irradiates from the illimitable sunstar. But the author must not blind us with unshadowed radiance—masses of lustrous blue, heaped upon the passionate eagerness of crimson, and that again upon the majesty of proud purple, floating tremulously upon the tradiate pulses of pure light, through whose fiery gaps and golden chasms sound in the heavenly distance stops of planetary music. But the eye and the heart grow sick and languid with ravishment, and turn toward the distant grey, through whose solemn monotony shines the faint tremor of stars."

HOW TO GET WATER ON DRY FARMS.—In travelling through the country, how many farms do we find destitue of water. Now, step up and ask why they do not dig a well—some will say "we are too poor;" others, "we are afraid to dig! Mr. So-and-so dug and found no water! others in this neighbourhood have dug and drilled, but their wells are very deep, and I would as lief haul water a mile above ground as from a mile below; besides, some of their wells cost as much as my farm is worth!" You can do

better than either. Dig a cistern at your house, barn or at the nearest ravine, or place where water will run in the spring, when the snow is melting. It is to this kind of a cistern I wish to call *special* attention, not a little egg of a thing, but a good large one, that will hold ten or fifteen cords of water.

Below I will give you my way of making a Ravine Cistern: First, determine upon the place; next, get all ready; then dig the size you want—(8 x 16 and 10 feet deep is the size of mine)—after digging the depth you want, you will see what your foundation is to rest on, and unless it is gravel, or rock, I would recommend digging the bottom out to a circle, and commence the wall in the center of the bottom, and build an arch upside down, to rest your walls on, then build the height you want your walls and arch over, if you have plenty of the right kind of stone, if not, plank it, cover over and let it settle and dry out before you plaster it, buil l a dam across the water run with the earth you dug out, so as to let the water settle some before you let it into the cistern; what little mud runs in will not injure the plaster any, and you can clean it out every time you get a chance.—*Correspondent of Wisconsin Farmer.*

Night Air.—An extraordinary fallacy is the dread of night air. What air can we breathe at night but night air? The choice is between pure night air from without and foul night air from within. Most people prefer the latter. An unaccountable choice. What will they say if it is proved to be true that fully one-half of all the disease we suffer from is occasioned by people sleeping with their windows shut? An open window most nights in the year can never hurt any one. This is not to say that light is not necessary for recovery. In great cities night air is often the best and purest air to be had in the twenty-four hours. I could better understand shutting the windows in towns, during the day, than during the night, for the sake of the sick. The absence of smoke, the quiet, all tend to make night the best time for airing the patient. One of our highest medical authorities on consumption and climate, has told me that the air in London is never so good as after ten o'clock at night. Always air your room, then, from the outside air, if possible. Windows are made to open, doors are made to shut,—a truth which seems extremely difficult of apprehension. Every room must be aired from without,—every passage from within. But the fewer passages there are in a hospital the better.—*Florence Nightingale.*

Lord Palmerston on Rural Affairs.—A foreign paper says that Lord Palmerston, in his 76th year, as lively and versatile as Rover, in the old comedy, recently delivered a lecture at Romney, very valuable for its practical truths, on the mode of building cottages, and how to reform untidy people by making their homes comfortable. He threw out valuable suggestions on the subject of practical farming showed that the stingy husbandman was political economist who gave unremuner wages to his laborers. In short, his L was overflowing with practical wisdom, t of long experience and observation.

The Old Farm House.

In a little grove of shade trees,
Stands a farm-house, brown and old
With a wealth of vines around it,
Gemmed with flowers of red and go
By the path that makes a circle
Of white sand around the lawn,
Grow sweet timothy and clover,
Rosy as a June-day dawn.

Around its door pale morning-glories,
Jump-up-johnies, dahlias, pinks,
Cluster—concentrated beauties,
Married by a thousand links;
Links of love, the works of nature's
Mystery of handicraft;
Links of glory, through which fairy
Argosies of perfume waft.

And the gate that swings before it,
And the fence as white as snow.
Stand on variegated cushions,
Which the sun-fire sets a glow;
Crowning them with many colours—
Yellow, purple, green and blue—
As if rainbows there had fallen,
Melted into rarest dew.

On its roof the greenest mosses
Catch the shadows from the trees;
On its sides red honeysuckles
Make their curtseys to the breeze;
And the ever-nervous willows,
Standing near the garden's bound,
Throw a web of shade fantastic
On the clover-mantled ground.

O'er the well an arch of grape vines,
Formed with heaven's directed ca
Chains the shadows to the water,
Making cool the summer air:
And a tiny church, its steeple
Piercing through a bower of leav
Is a sure and sacred refuge
Where the wren her carol weaves.

Fecundity in Domestic Animals.—
Farmer says that the English are
much attention to this, particularly a
sheep, endeavoring to have ewes lamb
year and bring twins every time, and i
ludes to the famous Chinese sheep wh
some stir here some four years ago, (
reason is we now hear nothing of th
not know). In their live stock, the
have especially studied fecundity, early
and aptitude. Their sheep are very
three of them were imported into Lo

in the London Gardens, and the increase
bs was so great that they became a nuis-
One ewe had five lambs, another four,
other three. In the United States, Cap-
heodore Smith began with the Chinese
in 1854, and in eighteen months he had
rease of seventy-four, one of the ewes
had twelve lambs in fifteen months. He
that the sheep are large and handsome,
e mutton of superior delicacy.

RNING THE COMPLIMENT.—"What a woman!" was the exclamation of Lord ellor Eldon, upon passing a beauty, when up and down Westminster Hall, with his the Master of the Rolls, previous to the of their respective courts. "What an nt judge!" said the lady when her sensi- caught the flattering decree of the Lord hancellor of England.

HUMOUR.—An Irish post-boy having a gentleman a long stage during torrents , the gentleman civilly said to him, , are you not very wet?" "Arrah! I are about being very wet; but, plase nour, I'm very dry."

otal length of railroads in Germany, at e of 1859, was 7,949 miles.

erries may be profitably cultivated on ground that would otherwise be useless. obinson states that, at Cape Cod, where berry culture is carried to its fullest ex- ampy lands, that were worthless a few o, have now "a saleable value of $800 00 per acre."

Transactions.

ty and Township Agricultural Societies.

act of reports received by the Board ulture in 1860, from County and ip Agricultural Societies, embodying eedings of those Societies for the 9, with the names of the officers of nty Societies for 1860.

ADDINGTON.

TY SOCIETY.—Eighty-six members. of subscriptions, $87; balance on om 1858, $121.98; deposited by p Societies $220; Government 479.98; Total receipts, $908.96. wnship branches, $484; paid to mittee of the Provincial Agricul- ociation, $262; incidental expen- balance remaining in Treasurer's 22.96.

s, 1860. President, Geo. Howard, Island; Vice-Presidents, Thomas wburgh, and C. W. Miller, Switz- erville; Secretary and Treasurer, J. B. Aylsworth, Newburgh.

TOWNSHIP BRANCHES.

CAMDEN—Eighty-seven members; amount of subscriptions, $102; balance from 1858, $100; share of public grant, $120; grant from township council, $40; total receipts, $263. Paid in premiums, $226.50; incidental expenses, $33.08; balance in Treasurer's hands, $3.42.

Extract from Report.

"Camden is proverbially a stockraising township. The only imported breeds, however, were Durhams and Ayrshires, until Mr. Nimmo, in the fall of 1858, introduced a number of Galloways from Scotland. These cattle have improved very much in appearance since they were brought to this country. The cows are said to be superior to any other breed, for furnishing milk of a rich quality. The majority of the farmers of this township prefer the Leicesters, to any other breed of sheep. Others think the Southdowns are more profitable, and more hardy. A cross between the two breeds, that is, a Leicester ram with Southdown ewes, produces an excellent description of store or common farm sheep, large, broad-backed, hardy and well formed, with fine long wool; they seem to retain the good qualities of both breeds.

On account of the depredations perpetrated by the midge, the growing of Fall Wheat has become almost obsolete; some half-dozen farmers in the Township, however, continue to cultivate it. By sowing, not later than the last week in August, on well prepared ground, it will ripen early enough to escape the fly.

The average yield, last year, was twenty bushels to the acre of Soule's wheat. But we think the Fife spring wheat safer. If sown about the nineteenth of May, the kernel does not form until after the midge has disappeared. We would recommend a more extensive cultivation of "Indian Corn," as this crop leaves the soil in a good condition for Spring wheat, barley, or oats the next year. The eight-rowed yellow is the best sort, for this part of the country; it ripens early, bears a large kernel, and may be *cribbed* with perfect safety. It should be planted in rows forty-two inches apart, four grains in the hill, between the fifteenth and twentieth of May. There is more danger of corn being injured by frosts in the fall,

than in the spring. Peas are the most suitable grain to sow upon land that has lain three or four years to clover.

To show what may be done in root culture in this quarter, we give a statement from a man who has had much experience in this branch of farming: J. Lucas, Esq., employed a skilled hand, who commenced working on the twentieth of last April. in a field containing four acres of *sandy loam*, which had been sufficiently manured from the barn-yard. One acre and a half of this field was sown with carrot seed, and produced fifteen hundred bushels of the "large orange" carrots. One-fourth of an acre produced two hundred bushels of onions.

One acre and one-fourth under Swedish turnips, produced ten hundred and forty bushels; some of the largest bulbs weighing twenty-five pounds each.

One-half acre of turnip beets produced two hundred and sixty bushels.

The remaining half acre was planted with early potatoes, and produced one hundred and thirty bushels, which sold on Kingston market during the first week of July for $1 80 per bushel.

After the potatoes were taken off, the same ground was sown with "White Stone" turnip seed, and produced one hundred and seventy bushels; worth 25 cents per bushel.

This Township is, comparatively speaking, a new one. The soil is so various in quality, and in the state of its cultivation, that we cannot recommend any particular system of farming as the most advantageous. Every man ought to possess a knowledge of the properties of the soil he cultivates, and know how he should treat it to make it produce the desired crop."

ERNESTOWN.—Seventy-eight members; amount subscribed, $80; balance from 1858, $26.34; Government grant, $96; total receipts, $202.34. Paid premiums, $140.36; paid for copies of *Agriculturist*, $36.50; incidental expenses, $25.48.

SHEFFIELD.—Forty members; amount subscribed, $40; balance from 1858, $5; share of public grant, $44; total receipts, $89. Paid in premiums, $65.75; expenses, $15.25; balance in Treasurer's hands, $8.

EAST BRANT.

COUNTY SOCIETY.—One hundred and eight members; amount of subscriptions, $102; unclaimed premiums, $12; balance from 1858, $238.61; Government grant, $479.98; total receipts, (exclusive posit of Township society,) $832.59. Township society, exclusive of depos paid premiums at seed wheat fair, $1 do at Union Show with West Ridin ty, $266.66; expenses, $145.09; b Treasurer's hands, $330.84. The D report that they held a seed fair August at Paris, which was well a and of much service in enabling the to obtain their seed wheat. They show in conjunction with the West Society at Brantford on 20th Sep which was also well attended and su

Officers, 1860.—President, Dan Naughton; Vice-Presidents, Charle law and George Stanton; Secret Treasurer, Wm. Patton, Paris

TOWNSHIP BRANCHES.

ONONDAGA.—Sixty-six members; subscribed, $171.12; balance fro $13.6; share of public grant, $72 from Township Council, $20; rec ploughing match, $6.84; total r $283.02. Paid in premiums, $244; ses and sundries, $33.15; balance $5.87. The Directors report that show of horses and cattle, in autu good, both as to variety and quali the sheep department, the entries we numerous than in former years, and any shown at any previous exhibitio show of grain, roots &c., was excelle fall wheat this year was about an crop, although injured in some loca the frost. Spring crops, with the e of hay, were excellent. With rega dairy productions and domestic m tures, the show was a decided succ

WEST BRANT.

COUNTY SOCIETY.—Two hund fifty-seven members; amount su $259; balance from 1858, $607; d by Township branch, $64; recei East Brant Society, contribution Exhibition, $266.66; grants from pal Councils of Town and Tow Brantford, $100; Government gra 98; sundries, $9.25; total receipts 89. Paid for buildings for exhibi expenses connected with do, $307. for clover seed, $9.10; paid for *Agriculturist*, $6.00; paid to branch, $120; paid premiums, $68 ing, stationery, services, and sundri 25; balance in Treasurer's hands,

ors, 1860.—President, Wm. Thomp- Oakland; Vice Presidents, James ill, Paris; Isaac B. Merritt, Scotland; ury and Treasurer, Duncan McKay, ord.

Extracts from Report.

directors believe that the efforts by the various agricultural societies Province have given of late years a pulse to the more skilful breeding of to a more careful selection of seeds rming implements, and to a more ical and productive system of crop- roughout the Province. They are nt too, that in no part of Canada ese efforts been productive of a better an in the west riding of the County t.

eat part of West Brant was originally y thinly wooded, and therefore pre- peculiar attractions to agriculturists e mother country, disliking, as many n do, the dense forests of the new This part of the riding forms a por- n vast tract of land, extending from ks of the Grand River in a south- direction, to the shores of Lake tract of land which originally con- what are termed "oak plains," and ontrary to the anticipations of many s of wild lands, has been found to a soil fertile and specially produc- he cereal crops. This soil is very ly a rich loam, easily draining itself rfluous moisture, and also remarka- of tillage. Lying chiefly on the al formation which contains what nically called "gypseous shales" it with plaster mines in various parts long the banks of the Grand River. duct of these mines has been un- and very beneficially applied to r crops of the district. This same l formation (running nearly east) is the one, if we mistake not, hich are found those large salt which have in the neighbouring oved to be a source of wealth and prosperity, and which scientific re- ay hereafter discover to be more diffused throughout this part of han has yet been supposed.

ppearance of the "oak plains" ntioned formed, in their uncultiva- e, a singularly pleasing landscape, of a park-like character, and l in many places with heavy belts of woodland, particularly along the margins of the rivers and rivulets. The beauty of the country has perhaps not been impaired by the spread of cultivation, as many fine trees have every where been carefully preserved, and numerous flocks and herds give animation to the scenery.

The capabilities of the soil in West Brant have by no means been entirely neglected. This district has never been subjected to that scourging rotation of wheat after wheat, one year after another, by which so many of the fine lands of the Eastern States have been rendered vastly more productive of weeds than of profitable grain. From the first settlement of these plains, on the contrary, a system of thorough fallowing has prevailed, and when the soil has been sufficiently prepared a clover crop has almost invariably formed a part of the succeeding rotation. So successful has been the system pursued that the land is now gradually becoming, not more and more exhausted, but more and more productive of every species of crop. We have no hesitation in saying that 25 bushels of wheat per acre is now quite as common a yield as were 18 bushels per acre some 15 years ago. There are some fine tracts of what was formerly woodland, which lie chiefly on the south side of the county, of which the tillage has not perhaps been so systematic, but with an increase of cultivated land there has generally, we believe, taken place an improved system of culture.

Wheat is the staple crop of the district, and the one towards which the attention of our farmers has hitherto been most perseveringly directed. It has generally been found to be more profitable and certain when sown upon well cultivated fallows than when after any preparatory crop, such as corn, peas, or potatos. The decomposition of the clover sod and complete pulverisation of the soil have as yet been more depended upon than any direct application of manure. A fear of rust has hitherto deterred our agriculturists from manuring their wheat crops to any great extent. To guard against this evil has always been one of their greatest cares.

Several new kinds of wheat have lately been introduced, one of which, the Fife variety of spring wheat, is remarkably free from the attacks of this fungus, and almost all of them are more productive than the older varieties cultivated in the district.

Spring crops, such as barley, oats, and peas, are generally cultivated more or less by every farmer, but they do not any where, at present, constitute a crop sown in regular rotation, and are perhaps in Western Brant, generally more or less uncertain, and are frequently less remunerative than fall wheat

The hay crop of the riding is composed wholly of clover and timothy, with an admixture of the wild grasses. Timothy is the only artificial grass cultivated in the district, and there is great room for doubt whether it is precisely the most suitable one that could be found for the use of the Canadian farmer. Experiment has proved that it is very deficient in aftermath, and that its nutritive qualities are no higher than those of other grasses which yield quite as largely at the first cutting, and spring up much more vigorously afterwards. We may give the *alopecurus pratensis*, or meadow foxtail as an example. It is a grass very similar in appearance and nutritive qualities to timothy, but far superior to it as an after crop. We would suggest that encouragement should be given in future years, to the cultivation of new species of grasses. The rye grass (*lollium perenne*), the cock's foot grass (*dactylis glomerata*), red-top (*agrostis vulgaris*), sweet scented varnal grasses (*anthoxan thum odoratum*), meadow foxtail (*alopecurus pratensis*), different species of poa, and fescue grasses (*poa pratensis, poa nemoralis, &c., festuca pratensis, festuca durinscula, &c.,*) and others have been cultivated in the mother country. We observe that enterprising seedsmen have already imported the seeds of many of these grasses into this Province, though perhaps not of the very best in the list. But very little trouble is therefore necessary on the part of our agriculturists to give those grasses a fair trial. It has been found that a sod composed of different species of grasses gives a succession of nutritive pasture in the different seasons—one grass coming to maturity as another withers away. Different soils and different situations do also require different sorts of herbage. The red top (*agrostis vulgaris*) is specially adapted for wet soils, and the wood meadow grass (*poa nemoralis*) delights in shady woods.

We observe with much pleasure that the cultivation of green crops is gradually getting more and more into fashion in this district; though the breadth sown is yet comparatively insignificant, generally varying from one or two acres to eight or ten ally upon a single farm of from one to hundred acres. A larger breadth of has perhaps been sown during the pas than in any preceding one. The more market, and more remunerative price obtained for fat cattle and other live no doubt render the turnip crop of mo portance than formerly; and the now convenient means of transport, and increase of American and Canadian and towns, will still further stimula cultivation of green crops. The cha crease of the population of the E States and of a large part of Canada, w doubt in future years be in the large cantile and manufactoring cities and rather than in the rural districts; an increase of consumers will, day by da der our home markets more imp especially for the sale of beef, mutto pork. Green crops will therefore b every day more remunerative, and wi increase of their cultivation will fol increased supply of manure, with still further to increase the fertility soil. The cultivation of green crop then too, at no distant day, supply a ble course in an improved rotation of

It is in vain, however, to attempt t large quantities of green crops with taining a large quantity of manure to with. Guano, bones, and other exte manures are therefore valuable to th culturist, and facilities for obtaining are very necessary to him. Agric societies would therefore do well t these manures within the reach of h in their various localities, and to enc them to prove the efficacy of these m by experiment. A merchant in the t Paris, a year or two ago, ground hundred bushels of bones, but failed lieve, in disposing of them to such tage as he had reasonably anticipated to the want of a due appreciation value of this manure by the farmin munity. He proved, however, th quantity of bones that might be o for small expense within this distri very considerable.

Liquid manure is another fertilising of great power. Many a farmer who accounted skilful in his profession, one or two thousand gallons of this manure to be annually wasted—a capable of producing some 4 or 5 t

els of Swedish turnips; this fact makes el how far, how very far, Canadian ulture is yet short of perfection. Mr. i, the very skilful and successful Eng- agriculturist, is a strong advocate for e extensive use of liquid manure— he attributes very much his success in ltural pursuits.

ano is a manure that can be obtained n et illimitable quantities, and when od quality, is most powerful in its ef- whether it be applied to turnips or n corn.

s latter crop, it may be observed, is means so largely cultivated in West- anada as its merits would seem to nt. There is hardly any one of the ouring States in which the number lds of Indian corn annually produced, ot nearly equal those of the wheat grown in the same state. This fact seem to show that our American en have become fully sensible by ex- ce of the profits that attend the cul- n of this plant. Indeed when we r the excellent fodder contained in ks, the sure return that it always af- or good tillage, the ease with which arvested, thrashed, and ground, we ly wonder why its culture should een so much neglected in Canada as een. As food for man Indian corn commands a ready sale—as food for rior animals, it has never been sur-

te years, as we before remarked, a mprovement has taken place in the f Live Stock. The superiority in of the sheep now bred in Western ver those bred some 10 or 12 years t once recognisable. Some persons though we think without sufficient that so much attention is not now d on the breed of swine, as was some rs ago. Be this as it may, there can oubt that the general excellence of ed of pigs is now certainly much than it was then. There may pos- fewer fine individuals than there r 5 years ago; but yet the general we think, is quite equal to what it hat time. Great attention continues aid to the breed of horses, and far- very ready to avail themselves of antages which the importation of rior horses from the mother country n time to time offer to them. The number of good carriage and agricultural horses now in the County of Brant is very large. A considerable improvement is visible in the quality of horned cattle, tho' we regret to have to say that less activity is directed towards improving their breed than exists with regard to either horses, sheep, or pigs.

A good breed of milch cows is much wanted in this Province; our importations of dairy produce from the United States are very large. A great saving to the country might yearly be effected by the establishment of more dairies amongst us There are already a few in this part of Canada, but their number might be very largely and very profitably increased. It is much to be desired that Western Canada should not be so wholly dependent, as hitherto, upon its wheat crop alone. This crop is somewhat precarious in its nature, and it is therefore to be wished that at least a part of the great expense now devoted to its culture, should be directed towards the raising of some other agricultural produce in its stead, of a kind less fluctuating in its returns and more equable in its prices. We may remark too, that a variety of produce acts somewhat as an insurance against risk. A blight upon wheat may be greatly compensated by a good yield of corn, a failure in hay by an extra productive crop of turnips, a light harvest of grain by an abundant return of cheese. On this principle, the rearing of live stock, the production of dairy produce and wool, the establishment of flouring mills and manufactories, should each contribute towards the national wealth. The human family, besides, is made up of members differing vastly in age, in strength, in mental talents, and we therefore require different employments suited to the different characters of each, so that the labours of all may be employed to the best advantage. We "want all sorts of employment for all sorts of men."

The profits of dairy husbandry cannot justly be estimated by the insignificant gains acquired under the petty system of dairy management that now commonly prevails in these parts. Very usually the weekly produce of some three or four cows is taken to a neighboring storekeeper, and is by him salted down along with other lots of greater or less excellence. When the whole quantity is sent to the large cities and inspected, it is of course found to be

in layers of every colour and of every quality; and the sale of three-fourths of a keg of good butter may be spoiled by reason of the admixture therewith of a small portion of an inferior quality. Were the produce of a greater number of cows packed up by the farmer himself in due season, kegs of similar quality throughout might be obtained, and these would command a higher and much more ready cash market. Dealers, in the event of a mercantile butter being packed up in large quantities in this district, would find it to their interest to purchase and collect this butter after the manner done in the neighbouring States; and then, for a time, contrary to the usual course of things, the greater the supply the greater would be the demand.

Cheese is a commodity which finds (as we before remarked of dairy produce in general) a large and ready sale in this province. To make good cheese requires perhaps more skill than is needed to make good butter; but again, the former article is commonly, we think, more remunerative than is the latter. Good cellarage, and convenient utensils, are necessary for success in dairy management. Of late years considerable attention has been directed towards the manufacture of efficient and economical churns, which have been constructed of various forms, and on various principles, and have at different times been more or less popular.

There is indeed no department in our agriculture in which the evidence of progress is more visible than it is in the mechanical. We everywhere meet with the application of machinery to new objects, and an improvement in the manner in which it has already been directed towards others. Reaping machines are now in universal use, abridging the labour of the harvest by almost one half, and threatening to displace the American grain-cradle, which was itself a vast improvement upon the European sickle. Mowing machines, too, are very prevalent. Threshing-machines are year after year becoming more speedy and more efficient in their operations. Grubbers and cultivators have long been in use, though the anticipations of many of our agriculturists, that these implements would greatly supersede the use of the plough, have not been realised. For promoting a vigorous fermentation in the soil—for overcoming the *inertia* of our mother earth, no implement has yet been found superior to a well-constructed plough. There is a great difference, however, in the ease of draught obtained, and the ease of work accomplished, by some ploughs beyond what is effected by others, and would do well to make it their business roughly to understand this. As aiding making this truth evident, as well as creating a higher standard for good ploughing, the annual ploughing-matches now generally prevalent in this district, have great use. In the matter of fanning we speak with some diffidence, but we think that a considerable lessening of the force now required in their use, and an efficient way by which they might do their work, is possible. We could also see boilers and steam apparatus for preparing food for cattle more generally used than they are at present. There is a great saving effected by cooking the food for various animals, especially of such as do not chew the cud.

It is very desirable that Canadians should be impressed with the necessity of planting trees for timber, and of preserving the young trees of their forests, so that in time the young timber may supply the place of the old. The present generation of lumberers have no experience of the want of timber, and experience is the most powerful teacher of the majority of mankind. Experience is a reality in its teaching which mere instruction can never supply. Apart from this, apprenticeships are judged by us necessary for every trade and profession. Hence, too, the advantage of model farms, hence the necessity for premiums and facilities to stimulate and sustain industrial enterprise, manufactories, &c. Our forests need not be altogether unproductive of anything save wood: there can be no doubt that they would afford a luxuriant and excellent pasture if they were sown with wood-meadow grass, (*poa nemoralis*) and it is reasonable to suppose that the shelter of shady woods would be very grateful to cattle during the summer heat. The laying down of forest lands for pasture is no novelty in the British Isles. Years ago, the late Duke of Athol found that very fine cattle might be reared on his Highland forests that had been laid down with the poa nemoralis for that purpose.

But we must not merely nurture the present woods, and increase in many parts their number; we should also judiciously

acmise their use. It is impossible present system of fencing, so pro- valuable timber, can be much longer d, at least in the more advanced parts province. Hedges, stone-walls, or will shortly become an absolute ne- The attention of our farmers can- refore too soon be directed towards ding of a suitable substitute for fences. The Osage Orange may be oo tender a plant for hedging pur- this climate, the hawthorn of the country has been found in some of America to languish under the heat; but there can hardly be a at some of the Canadian species of the cock-spur, or *cratægus crus-galli*, uple, would make an excellent fence. s, we believe, can be readily bought ir seedsmen, and therefore experi- o determine its value could not be ome.

planting out of fruit trees has already deep hold of the minds of our Ca- farmers, and it is certainly well wor- ll the attention that it has received. ny bushels of fine grapes, what vast es of plums and apples, might al- Canadian farmer obtain at small n this we might take lesson from ians, who inhabit a country in many ilar to our own, and who prepare for nt of winter by storing up a very lection of prunes, raisins, apples, &c. serve that the more wealthy yeo- are beginning to expend no small the erection of permanent dwellings selves and their families. It is to d that the taste and convenience d in the erection of these buildings mensurate with their cost; but in ral or even urban architecture in is at a very low ebb. Congruity s commonly ignored, and too often l meretricious ornament is substitu- uthful elegance of construction, and of character. We mean not to nd lavish expenditure, for elegance ense are by no means synonimous The useful and the ornamental are ly united in the works of nature, are also commonly so in the best ns of art.

nnual Exhibitions exhaust a large r income, but they are also a great engaging public interest in favour ciety. It is important therefore that those exhibitions should be made as attractive as possible. Novelty is an element very necessary for their success, and therefore the Horticultural Department is generally one of their most interesting parts. In this department the beautiful wild flowers of Canada, cultivated and justly admired as they are in Europe, might fill a small corner. In our native woods may be found hardy perennials, which for elegance, variety, and brilliant colours, may well compete with many of those sickly exotics which are now so much in favour. The Asclepias, Tuberosa, the Lithospernum Officinale, the Wild Lupine, and Flowering Raspberry, are very showy plants; the Uvularia, Cypripedium, (moccasin flower), and Arbutus, are of peculiar form and singular elegance; the Hepatica, Sanguinaria, Gentiana, Liatris, Gualtheria Chimaphila, and Erythronium, are beautiful in themselves, and beautiful by contrast Many of them are rapidly becoming rare in this County, and may even become extinct within our borders. We no longer bruise the luxuriant foliage and drooping flowers of the "Ladies' Slipper" under our feet; our eyes are now seldom gratified by a sight of the tall blue flowering stalks of the Wild Lupine, the former ornament of our plains. These plants, and many others, have almost disappeared; their places are taken up by the clover and gramineous plants, but still no lover of the beautiful would wish those elegant mementos of former years to be altogether forgotten and unseen.

We would impress upon the farmers of West Brant the importance of cultivating well, rather than of cultivating much. Modern civilisation seems to shoot out, as it were, into two branches or distinct systems,—the one dividing the whole country into numerous small farms, which comfortably sustain a very dense population,—the other congregating the people into vast masses in the mercantile and manufacturing towns. The one system prevails in Belgium, which has a population of some 400 persons to the square mile, and under which system, crops are growing incomparably greater (if we may believe late travellers) than those produced under the Scotch system of husbandry. The other system prevails in England, whose large hereditary estates, and busy hives of manufacturing industry, cannot, for very many years, have their counterpart in this colony. Nor is it perhaps desirable that they should. The riches of the teeming soil

have never yet been fully developed. Better perhaps, is it that the public domain, the sustenance of the nation, should be the patrimony of the many, than the inheritance of the few. Better perhaps is it to win from the fruitful earth the abundant fruits that spring from her bosom, than to work out a precarious and unhealthy existence amid the vices and temptations of a town. Upon a farm, there is continual and remunerative employment for every one, great or little. No stagnation of trade, no fickle change of fashion can render wheaten bread unacceptable, or put beef and mutton out of use. With ordinary prudence, almost every Canadian may literally "sit under his own vine and fig tree, having no one to make him afraid"

TOWNSHIP BRANCHES OF WEST BRANT SOCIETY.

BURFORD.—One hundred and thirty-two members; amount subscribed, $131; share of public grant, $56; receipts at show, $24.-85; total received, $214.85. Paid in premiums, $146.50; expenses, $34.02; balance in hand, $34.33.

BRUCE.

COUNTY SOCIETY.—One hundred and two members; amount of subscriptions, $102; received from Township societies, $385; received from sale of seeds, &c., $155.55; Government grant, $479.98; total receipts, $1122.53. Paid Treasurer, balance from 1858, $11.50; copies of *Agriculturist*, $6.50; paid for seeds, freight, &c., $152.-42; paid townships branches, $660; premiums, $131.25; expenses and sundries, $149.24; balance in hand $11.62.

Officers 1860. President, Wm. Withers, Kincardine; Vice-Presidents, Wm. Millar, Kincardine; William Blair, Pine River; Treasurer, Malcolm McPherson, Kincardine; Secretary, John Mosely, Kincardine.

Extracts from Reports.

This society held its seventh annual exhibition, at Kincardine, on October 4th, 1859. In consequence of the late depression in agricultural affairs, it was not quite so extensively supported as upon former occasions. The horses were of a useful and respectable sort, though rather low in condition. The cattle were good, particularly the young stock. The sheep, in point of quality were very superior to those shown in previous years. Hogs shewed a decided improvement. The show of grain was rather limited, but some excellent specimens were exhi both in fall and spring wheat. In th and vegetable department, the spec were not only numerous, but very s in quality, considering the unfav weather they had to contend with. Th cabbages, both white and red, beets, and onions, being enormously large. were some beautiful grapes. Several of cauliflowers, greens, &c. Messrs Innes, showed a most excellent speci pearl ash, manufactured at their wo Kincardine. In the mechanical depar a great variety of articles were shown, elicited very strong recommendations the judges. The dairy department duced some most excellent specim butter. The display of ladies' fancy was also very superior.

The prevailing character of the soil county is, except a narrow space o sand along the lake shore, a rich loam average value is from $25 to $30 pe and it is capable of producing ver wheat, oats, and peas; and when older in cultivation, better barley w be grown in the Province, than county.

We cannot admire the generally a manner of cultivating and cropping th as it is a certain way to bring a poor to the occupier, and a most serious lo the owner. It is this:—after clearing of land, the first crop is generally (some times roots and then wheat), first crop be an abundant one, it is again, and in some instances three c wheat in succession have been tak the same piece of land—after which of oats, such as it is, sowing a small of grass seeds upon it. It is then to remain in that state to graze or fodder, for four or five years, in or *nature* may revive it, and give time stumps to decay. The usual quan duced is from 10 to 20 bushels o rate wheat, and about the same of acre. This method of procedure is but respectable, or yet profitable, goes to show the ignorance of the Farming, if made beneficial to th must be acted upon in a systematic manner, and only under peculiar stances should that system be var some parts of England the three-fie is used, in others the five-field, and few the seven-field system is prefer

it us to say, that in this county the field system should be used in the instance, after which, the five-field. think from experience the following e of crops would give greater returns any other which might or could be ed. If the clearance is made sufficiently in the season, say: 1st turnips; 2nd wheat; 3rd peas or oats; 4th wheat clover or timothy; 5th clover or timo- o cut for fodder; 6th graze it with or young cattle; 7th summer fallow, a good dressing of manure, and then heat. But if not sufficiently early for s. &c., say 1st fall wheat; 2nd oats; as; 4th spring wheat, with clover or ; 5th for fodder; 6th for pasturage; h summer fallow. Sowing peas for d crop will smother all sorts of weeds, ave the soil in a good pulverized state e wheat crop. After this we would five field system, which is, 1st fall reserving a portion for barley in the ; 2nd peas; 3rd spring wheat, with ressing of barnyard or artificial ma- 4th oats; 5th summer fallow. If is sown sooner than the 6th or 7th generally makes too much straw, with slender grain, but after that time will good stem with a plump grain. should not be sown in the same field than once in six or seven years; but once in ten years it will give a better

By observing the above routine of e soil will be kept in a fresh luxu ate, and with favourable seasons will to yield an abundant increase. Early owing should be attended to, which ever fails in giving beneficial results farmer, both with regard to the as well as the quantity of his grain. many of the farmers in this county pleasure bear ample testimony to abundant harvest. At our late as several of them spoke of having splendid return of from 32 to 36 of wheat per acre, the whole of ributed their success to early sow- n the 26th of April, 1858, was sown l of mud wheat per acre on land re had been turnips the season be- which was harvested 32 bushels of a very good quality. Also on of April, 1859, was sown some wheat, 1¼ bushel per acre, the re- hich was 36 bushels per acre. On May, after a slight manuring and spring ploughed, was sown 2 bushels of oats per acre, the return was 40¼ bushels per acre; the quality almost superior to any I have seen in Canada. In these instances we do not attribute our good returns to the extra quality of the soil, so much as to the early sowing and to the favorable season.

The wages of working men are rather higher than they ought to be; 3s. 9d. per day for the agricultural labourer, and 6s. 3d. for the mechanic, are more than can be given by the generality of settlers, and these high rates prevent the work of improvement from making that progress it would if wages were at a more reasonable standard. From the newness of the county (the oldest township not having been settled more than about ten years) great improvements have not yet been obtained in the breed of cattle. The clearances not being sufficiently large to afford good summer grazing, nor that comfortable in door accommodation which there ought to be, to protect them from the inclemency of the weather in winter. We think the Ayrshire breed, for dairy purposes, Durham for beef, and Devonshire for agricultural labour, the most suitable at the present time. A five year old ox, Durham half-breed, brought into Kincardine this season, weighed nearly 1000 lbs., and for quality of meat, would have been a very respectable acquisition to any butcher's stall in Canada. Sheep are only partially kept at present We think the Southdown the most suitable; fine wool, and good mutton, being taken into consideration. In hogs there is a very great improvement. A few years ago the hogs of this county were miserably bad; almost a disgrace to their owners; at the present time they are good. Several have been butchered weighing from 450 to 600lbs. each.

Horticulture is in rather a feeble state; the general attention being given to the clearing of the land for the production of grain. However, there are a great number of gardens well stocked with small fruit trees, currants, gooseberries, &c., and a great variety of useful vegetables. The planting of apple and other fruit trees, has been pretty well attended to, as we believe there are upwards of 300 acres of orchard ground at the present time in this county, and with favourable seasons, we may safely calculate upon having a good annual supply of this highly esteemed and useful fruit. The climate of this county quite agrees with the growth of all sorts of fruit trees; therefore

in the course of a few years the planter will receive an abundant return for the care and attention he has devoted to the training and protection of his orchard and fruit garden.

Buildings.—The old Log Shanties are disappearing, and giving place to neat and commodious Frame Hou-es. Large frame barns, with other suitable buildings are now adorning a great number of farmsteads in this county; thus enabling the farmer to preserve his grain from spoliation, and bring it to market in a fit and proper state for consumption.

With regard to Draining, we may say, it is in its very infancy, as until the stumps are gone it would be impossible to perform it as it ought to be, or with any certainty of repaying the farmer for his outlay Lands that are sufficiently elevated for a clean draining of the surface water, should be formed into ridges of from 15 to 18 feet in width. If nearly a level surface, make ridges from 9 to 12 feet in width; give them three ploughings inwards; cut a drain up each furrow, from 18 inches in depth at the top end, to 30 inches in depth at the lower end of the field: each of the furrow drains opening into a heading drain, from which there should be out-falls at every 20 rods distance, otherwise the silt or loose soil might accumulate and fill the opening. Pipes of two inch bore, 12 inches in length for the furrow, and four inch bore for the heading drains, are now generally used in England. They are sold at $5.50 for the small, and $8 for the large size, per thousand. But where there is a firm bottom, we prefer the open horse-shoe shaped tile of 4 inches in width, by 6 inches in height, and 12 inches in length. They are sold at from $4.50 to $7 per thousand, according to size. Where the ground is generally wet, it will require deep draining, say from four to six feet in depth, if you can obtain a sufficient fall for the water; no other method will have the desired effect.

Excepting the frosts in June, we are happy to say, the crops did not suffer during the past year in any way whatever. We have not heard of the least symptom of the wheat fly shewing itself in this county, and hope that with proper care and caution, it may be prevented."

TOWNSHIP BRANCHES.

BRANT.—Ninety-seven members; amount of subscriptions paid, $80; balance from 185[illegible], $6.75; share of public grant, total receipts, $176.75. Paid in prem $85; expenses, $49.54; balance in surer's hands, $42 21.

Extract from Report.

Our grain crops are evidently impr especially wheat, both fail and sprin Glasgow seems to answer our soil a mate best, and we hope ere long to s iron train passing our doors and b away some of our farm products to st gaze of an admiring multitude and th scrutiny of the judges at the Provinc hibition, when we feel confident th township shall receive a full share laurels distributed on those occasions.

Oats, peas, barley, all excellent, b the want of roads to get to market ov ers only raise sufficient for home co tion. Roots of every useful descripti improving and cultivated upon ra extensive scale throughout the towns not generally as cattle food, with the tion of turnips, of which there is a p supply. Mangels, beets, parsnips, &c., grow to an enormous (almost inc size, as does also every variety of vegetables. A cauliflower, cut on t September, weighed on the 1st o ber (after being divested of all sup leaves, &c.,) 9½lbs.; the *flower's* was 17 inches.

The dairy department at our anni was very creditable and the many s samples of delicious butter, cheese an sugar betokened the right sort o wives.

(To be continued.)

Editorial Notices.

THE HANDBOOK OR ANNUAL RECORD TICULTURAL AND AGRICULTURAL STA By Wm. P. Sheppard, Proprietor of t cultural Agency, New York. This, we suppose its principal object is to Mr. Sheppard's establishment, conta amount of interesting and useful in Amongst the contents are a chapter ing, giving some valuable hints on t tant art. A descriptive catalogue vegetables and other garden plants, tions for the culture of each; this ex about 70 pages. New Plants of 185 such new plants as have come parti

during the year; extending over 25 pages. Flowers of the Year—15 pages. New List of Agricultural and Horticultural ts, issued from the United States Patent during the year 1859. List of Horticul- and Agricultural Journals. Horticultural tory, being a list of the establishments of urserymen, Seedsmen, Florists, &c., in the l States and Canada, with the principal establishments doing business in this , occupying some 30 pages.

ACKWOOD'S MAGAZINE FOR JULY—New Leonard Scott & Co. Toronto: H. ll. This is an excellent number of Black- The articles are: The Secret History Russian Campaign of 1812—Sir Robert : Captain Speke's adventures in Somali Part III.; Poetry; Judicial Puzzles— ampden Wonder; The Royal Academy her Exhibitions; Norman Sinclair—An ography—Part VI.; An Election in : Erinnys; The Reform Bill and the arty.

TRANSACTIONS.—A pressure of occupa- prevented the requisite attention being the usual abstract of the Societies' Re- It is commenced however in the present and will be continued as rapidly as cir- ces will permit.

HALF VOLUME.—We beg leave to repeat *Agriculturist* will be supplied for the , commencing July 1st, at 25c per copy, ies for $2.00. The half volume will f 12 numbers of 32 pages each, and not printed as a distinct volume, will a good sized book of 384 pages. The nbers can be supplied from the 15th 0c. per copy to the end of the year.

OTIA.—We regret to notice that "The f Education and Agriculture for Nova is insufficiently supported to pay ex- d that the editor and publishers have d to suspend the periodical for a few order to ascertain whether the Teach- rmers are really desirous to have an epresent their cause. We hope that the Blue Noses will bestir themselves a little, and not allow so well conducted and use- ful a journal to die out for want of adequate sup- port.

TO CORRESPONDENTS.—Communications for the *Agriculturist* should come to hand a week be- fore the date of the number in which they are to appear, as the paper must go to press several days before the nominal date of publication.

Markets.

TORONTO MARKETS.

July 28, 1860.

There has been but little grain offered in the market during the past week. In other articles of farm produce there has been a more liberal supply and ready sale. The latest quotations are as follows:

FALL WHEAT—$1 25 a $1 38 per bushel.
SPRING WHEAT—$1 12½ a $1 17 per bushel.
BARLEY—50c a 55c per bushel.
OATS—32c a 34c per bushel.
PEAS—50c a 55c per bushel.
FLOUR—Extra Superior, $6 50 a $6 70; extra, $6 a $6 20; fancy, $5 25 a $5 60; superfine No. 1, $5 15 a $5 20; superfine No. 2, $4 90 a $5; fine, $4 20 a $4 25.
HAY—new, $9 a $14 per ton.
STRAW—$5 a $6 per ton.
WOOL—29c a 30c per lb.
BEEF—first-class cattle, $5 50 per 100; second class, $4 50 a $5; inferior, $3 50 a $4.
SHEEP—$3 50 a $4 each.
LAMBS—$2 each.
PORK—$6 per 100.
HIDES—$5 50 per 100; Tallow, $7 50 a $10.
SHEEP & LAMB SKINS, 40c each.
POTATOES—new, plenty at 30c a 50c per bushel.
BUTTER—fresh, 13c a 15c; tub, for shipment, 10c a 11½c per lb.
EGGS—13c a 15c by retail per dozen.
CHICKENS—25c a 30c per pair.
DUCKS—30c a 35c.

NEW YORK MARKETS.

New York, July 27.

FLOUR—receipts 3,691 brls; market heavy, but prices without important change; sales 10,400 brls at $5 to $5 10 for Superfine State; $5 10 to $5 30 for Extra State; $4 90 to $5 05 for Superfine Western; $5 05 to $5 25 for com- mon to medium extra Western; $5 25 to $5 45 for inferior to good shipping brands round hoop Ohio.

CANADIAN FLOUR—dull and drooping; sales 480 brls at $4 95 to $5 for Superfine; $5 05 to $7 50 for extra.

Rye Flour—steady at $3 50 to $4 20.

Wheat—receipts 11,042 bshls; market without striking change. The scarcity of freight still restricts the export demand; sales 35,000 bshls at $1 21 for Racine spring; $1 20 to $1 21 for Milwaukee club; $1 20 to $1 25 for winter red Western; $1 46 for prime white Indiana; $1 30 for new amber Southern.

Rye—quiet at 80 to 81c.

Barley—nominal.

Corn—receipts 31,815 bshls; market little firmer with small supplies; sales 22,000 bshls. at 61 to 62c for common to prime mixed Western.

Oats—steady at 37c to 40c for Western, Canadian and State.

Pork—heavy and lower; sales of 700 brls at $18 87 for old Mess; $18 to $19 12 for new Mess; $12 50 for Prime; $14 to $14 25 for new Prime.

Beef—steady and unchanged; sales 325 brls.

Hams—$11.

MARKETS AND CROPS IN ENGLAND.

(From the *Mark Lane Express* of July 9th.)

"To be able to report a brilliant week after such protracted wet and cold weather, is really a relief and a subject for gratitude. Haymaking has gone on extensively, a portion is already assured, and some carried with a better result than at one time was expected; the raised temperature previously to the dryness having much improved the crop, which may now turn out an average. But those few, who in despondency commenced cutting in the wet, have been obliged to force off their new gatherings at damaging prices. With respect to corn and roots, there has not been so decided an improvement, the soil, especially heavy lands in low places, being apparently water-logged, though bound on the surface. Potatoes have no strength; neither wurzel. Wheat very slowly advances on the best soils, and looks hopeless on the worst, as is the case with Barley; and there is no time now for a tillering or increase. But this makes it the more important that the fine weather should last till harvest is over, as an abundant yield under the most favourable circumstances is impossible. Yet the markets have shown the usual sensitiveness under a clear sky, and have universally given way fully 1s. per quarter. The rates at present are beyond speculative demand, and the quantity with better though not heavy foreign supplies being beyond millers' present wants, whose policy at such periods is always reserved. Foreign markets, too, have rather fallen back, upon the dull advices hence, excepting Odessa, which had been sent up by English orders; and perhaps there is no country but France that will be less than an average. There the rates have given way 1s. 6d. to 2s. per qr.; but the general lateness certainly places the universal yield in greater jeopardy. As respects the devastation of locusts in Russia it turns to be but trivial, and there is every pr that the South will prove to be the richest in corn known for a long period. In Sp places are well reported excepting Barc and rates at Seville have been falling fast America Wheat has been buoyant, and quantity exported; but Flour was rather l No arrivals off the coast reported since 29th to July 6th. The business reported follows: the late seasonable weather h effect of reducing the sales of only 8 ca Maize arrived—a cargo of Port Lagos at 2 American at 32s. and 31s. 9d. per 4 and 2 Odessa at 33s. per 492lbs. Barley sage—Danubian at 25s. 6d. per 400lbs, (due in London) at 24s. 6d. per imp, qr.; bian per steamer at 25s. 6d. per 400lbs.

The sales of Wheat noted last week 87,951 qrs. at 58s. 5d., against 59,350 q 1859. The London averages were 56s. 1,532 qrs. The imports into the principa of Great Britain for the week ending 29th in Wheat and Flour were equal to 96,989

Improvement in Tanning.—The im ment in tanning hides and skins of all d tions, just patented by Charles L. Rob of Wankesha, Wis., consists in the emplo of terrajaponica—purified by a very simp cess—in combination with certain salts o nesia and potassa, whereby both upp sole leather of superior quality are prod By this process tanning operations m conducted altogether independently of t and hemlock barks of our forests, in an tion where plenty of water can be obtain

Ayrshire Cattle.—Patrick R. Wright Cobourg, C. W., breeder of Ayrshire Sheep, &c., has several young Bulls and for sale. His herd is well known as one best in Canada West, and his terms of liberal.

Full Pedigree of all animals—U. C. Register.

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☞ Not being now able to supply the first bers of the current volume, the subscription "Agriculturist" from 15th May to the end will be 30 cents per copy, with bonus at the as previously, viz: one additional copy with every and paid for in advance.

For the half year commencing 1st July the pric cents. Nine copies for $2.