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THE
Canadian Agriculturist,

AND

JOURNAL OF THE BOARD OF AGRICULTURE

OF UPPER CANADA.

VOL. XI.

TORONTO, SEPTEMBER, 1859.

No. 9.

THE PROVINCIAL EXHIBITION.

We recently had the pleasure of inspecting the grounds and erections now in course of improvement or construction; and without doubt the accommodation provided at Kingston both for convenience, comfort and permanency, far surpasses any thing hitherto attempted in this Province, and, perhaps, on this continent. The Crystal Palace has been thoroughly cleaned and repainted, and a large Mechanics' Hall, of a permanent character, is in the course of erection. The southern boundary of the grounds consists of upwards of one hundred permanent horse boxes, with shingled roof, all of which will no doubt be occupied by choice and valuable animals. A large number of cattle stalls, sheep pens, &c., is in the course of completion, which will be found by the owners of superior stock of great convenience. "These were pronounced by the members of the Board, from Toronto and Cobourg, the most complete and extensive ever provided at a Provincial exhibition, and deserved compliments were paid to the President of the Association, who is also chairman of the building committee, for the liberality and care evinced in the proposed arrangements. The Crystal Palace has been retouched throughout with bright and gay colors, which harmonize well with the foliage of the trees planted outside the building and with the adjacent landscape. The emblazonments of the different municipalities, the heraldic ornaments, and some specimens of stained glass executed by Chance, of Birmingham, add to the beauty of the interior. A very large, handsome dome with beautifully wrought windows has been placed over the transept, and the exterior has been colored with light and graceful tints. Accommodation for the Musical Choir will be provided in the transept, and everything is being done to render the building a fit repository for the treasures of art and the productions of industry."

His Excellency the Governor General and Lady Head, and Lieut. General Sir W. F. Williams, the hero of Kars and Commander of the Forces in British North America, have expressed their intention of attending the Exhibition, and several other distinguished persons from both sections of the Province and adjacent Provinces, and also from the United States, will doubtless do the same.

Professor Lawson of the University of Queen's College, and the Rev. Mr. Mulkins, have undertaken to deliver free lectures on subjects of scientific and practical interest to the farmers of Canada, during two evenings of the show week. Musical entertainments have also been arranged, and it is expected that Mons. LaMountain, the celebrated aeronaut, will make a balloon ascent from Kingston at the time of the show, which promises to afford a large amount both of rational amusement as well as much practical instruction to the many thousands that will pay it a visit. The Board has selected the requisite number of Judges in the different departments from the lists of names supplied by agricultural societies, each of whom has been apprised of his appointment by circular.

We observe that the Local Committee have unanimously passed a resolution, regretting and repudiating the construction put by a portion of the public press on the object of the late dinner given in Kingston to the city member, the Hon. Attorney General West. Let us hope that this most undesirable discussion will now cease, and that all parties will continue, as heretofore, to unite in sustaining the operations and patriotic objects of the Provincial Association.

Intending Exhibitors should recollect that their entries for competition must be made before or on the 10th inst., except of Horticultural products and ladies' work. Blank forms of entry and prize lists may be had of the Secretaries of Agricultural Societies and Mechanics' Institutes, throughout the Province.

WHEAT CULTURE IN CANADA.

The raising of this invaluable cereal has of late years been attended, more or less, with anxiety and disappointment in several sections of the Province, and the farmer will do well to consider carefully the principal conditions upon which his success must be based. It is clearly impossible to give full and specific instructions in this important matter, so as to meet the varieties of soil and climate, and other varying circumstances, which fall within the observation and experience of every practical man. All that is now proposed is to draw attention briefly to a few important facts and principles of a general nature that in practice are frequently too much overlooked.

After the most careful examination into the nature and causes which affect the raising of wheat in this country, we are led to the conclusion that the majority of failures are clearly attributable to the neglect of the ordinary principles of good husbandry, and are consequently more or less within the reach of human control. It is a notorious fact that in many parts of this continent, naturally adapted to the growth of this cereal, its culture has been so frequently repeated without the proper observance of those essential conditions, the thorough cleaning and manuring of the land, that the most stinted returns—sometimes not even amounting to the seed sown—have been the consequence.

In our older settled districts it is every year becoming more apparent that to secure a profitable crop of wheat, something more is required than was formerly necessary in the virgin state of our lands. As cultivation progresses and attains age its operations become more complete and the art of good husbandry makes larger demands on the care, observation and judgment of its followers. For example, the greater part of our soils on this continent, for several years after having been redeemed from the forest or the prairie, will yield frequent and abundant crops of wheat with the most ordinary culture. But it is the certain history of these soils after a few years under such treatment, that their yield gradually becomes less, till at length their cultivation becomes absolutely impossible. Such

lands become in the popular phrase *exhausted*, a term highly significant and scientifically correct; and they cannot be brought back to their original productive condition, without restoring to them in some shape or other, those fertilizing ingredients, of which, by repeatedly cropping without manuring, they have been deprived. Again, one sometimes sees the attempt to raise wheat on soils naturally unsuited to its growth; and which can never be made to produce an average crop, without resorting to such expensive expedients as to make the business unprofitable. On such soils, in so extensive a country as this, wheat should not be attempted, they can always be put to a better use.

As the season for sowing wheat has again come round, it is now too late to remedy any negligence or defects that may exist in the preparation of the soil, which should have received such repeated ploughing, &c., as to render it clean and friable. The direct application of strong putrescent manures, such as farm yard dung, &c., to wheat, is often found in this country to stimulate too much the growth of straw without a corresponding filling of the ear; such manures are more economically applied to the previous crop, particularly to roots. Wheat also requires the soil to be dry and sound; upon low, wet lands its cultivation can never be made profitable. It is now too late to underdrain, but in some situations much can be done by properly ridging the land and making surface furrows, so as to carry off freely the heavy rains of Autumn and Spring.—A little extra attention and labor, will, in this way, frequently relieve considerable areas of stagnant, and consequently injurious water. If matters of this kind were more attended to at the time of sowing, we should hear far less about the ravages of rust, midge, &c.

As to the *time* of sowing no absolute specific rule can be laid down, since so many varying conditions are found in practice to obtain. The nature and fertility (natural and artificial) of soils, situation, level, climate, and the varieties of wheat sown, are each and all important considerations in determining this question. Very early sowing has often been attended by the ravages of the Hessian fly, and other evils resulting from a too luxuriant autumn growth; while late sowing, especially on poor soils and in exposed cold situations, prevent the young plant getting sufficient root hold of the ground before winter, and exposes it particularly to the attacks of the midge the following summer. Experience has shown generally that from the beginning to the middle of September, is the best and safest time for sowing the ordinary kinds of wheat in most sections of this Province.

The communication in our last number of Messrs. Whitney & Co., has no doubt, ere this received the attention of our readers. The early Kentucky seed wheat will be tried this season by several farmers in different parts of the Province; and there is good ground for hope, founded on analogy and, as yet, a limited experience, that these varieties by ripening early will escape the destructive attack of the fly.

Drilling when practicable, is strongly to be recommended. It has many advantages over broad-casting, requiring less seed, and depositing the same at a uniform depth; thus preventing, to some extent, the destructive effects of heaving out by frost. The quantity of seed per acre must depend mainly on the state of the soil and the time of sowing; one bushel, if drilled early in good land, will in most cases be sufficient, but when sown broad-cast and on poorer soils, and later in the season, double that quantity will be required.

A Brick Machine introduced into Russia by Mr. Clayton, of London, Eng., is capable, it is said, of producing ten millions of bricks per annum. He has got some special privileges from the Russian government and is now establishing large works in that country.

Correspondence.

IDLE HOURS—LIVE FENCES, &c.

Messrs. Editors,—Time is a talent, and one that is much wasted, and in this extreme warm weather there are some hours at midday that I may use for my own amusement at the present, and perhaps the hours of idleness may be conducive to some good some future day. Might it not be useful to write some practical notes on the best mode of raising live fences? The subject has been discussed in clubs, but not to my satisfaction. Some practical man should take up the subject, and write what he knows about it, and, if in his power, he might apply some of the theories in vogue, experimentally, and so prove their worth. I shall try to commit to paper what I know on the subject, and as I am now very old, some one may come in just where I leave off, and so save himself the labour of going over experiments to no purpose. For these last seven years I have been trying experiments with some plants which I thought might succeed, and seeing the apple recommended I had a good chance, and made a trial. They don't stand cutting; they are short lived, their foliage is too large, and they are too expensive. Plums have also been tried by me, and they will do alone, but much better as a mixture in beech and privet. I even would doubt of them for farm fencing. The osage orange, if it could be made to stand our climate, would do for farm fencing, but it is not able to stand our severe seasons, nor can a hedge be raised much earlier of them than of the hawthorn. The Canadian thorns are hard to get from seed, and after they are procured their foliage is too large, especially the cockspur. Most of the other varieties that I have become acquainted with are not prickly enough, at least not so prickly as the hawthorn. I shall therefore recommend the culture of the British, or white, or hawthorn, and begin by saying, procure, if possible, acclimated seed, viz: seed from plants that have been raised in this country. As my method of raising the plants is within the compass of every farmer's means, I shall describe the mode in a few words as possible, because farmers generally do not like long puffing, except on wheat, or horses, although the day will come when it will be dung and green crops, cattle, &c. Every farmer grows at least *one rod of onions*; then prepare the land well for them, and before sowing lay off your bed in lines of two feet apart, draw a drill with the whole breadth of the face of a common hoe, say two inches deep; sow the haws into this drill so thick that they will touch each other, patting them well down with the back of a spade, or lay a board lengthways of the drill, and tread them well down, cover them up and sow your onion seed as if no haws were there—thus you will be able to keep the place clean of weeds, and have your crop of onions to boot. About one peck of haws will be sufficient to sow a rod. Clean the land well in the fall after removing the onions, and in the spring you will see the thorns coming through thick, but not so thick as you sowed the seed, as some take two or more years to come up. Now, say you sow in 1860 in the spring of 1861 they will begin to come up, and in 1862 you may draw up all you can handle conveniently, and plant them on a piece of well prepared land in rows, one foot apart, and about three or four inches apart in the row, leaving the seed bed for another year, or perhaps two years, as the case may be. The seed bed being in rows will not be difficult to keep clean, and in 1863 you may plant another piece of equal dimensions. Thus much for the seed and nursery beds. I prefer leaving the plants at least two years in the nursery bed, to acquire strength and get well rooted, that when planted out for good they may grow rapidly. Some will make shoots of eighteen or twenty inches the first year after planting for good; and I would prefer plants of from *three to six* years to plants of from *one to three* years, and the hawthorn will grow transplanted at almost any age.

My method of planting is as follows:—Prepare the site well with a spade; no necessity to raise a place for the plants. Lay them in on the level, one after another, at six inches apart, each plant headed down to within six inches of its surface growth, when the top of the second will be over the root of the first, and the third over the root of the second, and so on *ad infinitum*. I prefer heading down the first year's growth, whatever it may have been, to six inches, and the second to about twelve inches, which will leave your hedge about eighteen inches high to commence its third year's growth, and if kept free from weeds, and the browsing of sheep and cattle, the cause is won.

I had got thus far with my hours of idleness, when two friends called, both of them

inimical to live fences, and we argued the thing as to cost and so on, when I volunteered to read this to them. Just at the time a Kentish man popped in, and gave us a description of his mode of planting thorns in Kent, so here it is,—“We plant,” he said, “two rows, about four inches apart, and the second row of plants opposite to the space in the first row, and six inches apart in each row. They grow together, and draw each other up quicker, and when three feet high we *splash* them, in this way: We put a row of stakes between the two rows of thorn, and make a cut about six inches from the ground in the thorn, not quite through; then lay it down, wrapping its head in amongst the stakes, this makes them grow thick at the bottom.”

Another plan is to build a turf face, say two feet high, then lay the plants slanting, with their heads over the face, and cut the tops off in a line with the face—this I have from a Berwickshire man, who talks loud of hedges.

And yet another plan, procure the seed and twist them up in a rope of straw, and bury the rope lengthwise where you want to have the fence, and I may add, exercise patience for at least ten years.

By this may be seen the different modes of live fence raising, which have come under the notice of one individual, and as to how many more he may hear of or see 'tis not easy to calculate. Another mode which is economical, to say the least of it, is to take plants four feet high, and plant them in a line four feet apart. Lay the whole plant down and cover him over with earth. Thus far for one day's hours of idleness.

Now, Mr. Editor, the foregoing was not written for publication; but two or three of the readers of your very useful journal—which I am sorry to say is not so much used in this neighbourhood as it ought to be—insisted to have something local. I declined, being a man of no tail. If I were possessed of say 3,000 acres, or say one cypher less, and were a cypher myself, I might have my *tail grow*. But as I come under the designation of John Legget's clever fellow, I beg you to withhold my name from this if you should deign to publish it. Moreover, every man in our neighbourhood, after reading it, if you should publish, can with ease point to the author. I shall give you a definition of John Legget's clever fellow:—Two of us were saying to each other on a certain day, that such an one was a clever fellow, when Legget drew near, and as soon as he knew whom we were talking of, exclaimed, “He a clever fellow? how can he be a clever fellow? he never was worth twenty pounds in his life. Now, I come under this definition, and of less worth than twenty pounds, because *I am not worth coming to see*. And yet, Sir, I do not despair. Men are still living near, who twenty or more years since, when, on a small farm, I was in the habit of growing from three to four acres of turnips and carrots, looked with as much apathy at me then as a *turnip grower*, as they do now *as a live fence grower*. And these same men are now hoeing their five and more acres of turnips, and even saving their own seed; and I doubt not that in less time than has elapsed since then, that some of these men, or their descendants, will be growing their own *inorns*.

Yours, &c.,

J. W.

Raglan, July 14, 1859.

Agricultural Intelligence.

TRIAL OF MACHINES AND AGRICULTURAL IMPLEMENTS IN LOWER CANADA.

The grand trial of Machines and Agricultural Implements, under the direction of the Board of Agriculture of Lower Canada, commenced yesterday, (Tuesday 16th August,) on Mr. Logan's farm, in the vicinity of this city. The weather was highly favorable. The number of entries, however, was not very great, and there were not above two or three hundred spectators on the ground, both circumstances indicating a less degree of interest in the affair than we had anticipated. This, we think, was owing, not so much to any want of liberality on the part of the Board in offering prizes, as to the want of sufficient publicity being given to the event. The exhibitors were chiefly from Montreal and its immediate neighborhood, the number of machines from Upper Canada and the United States being very limited.

The following is a list of the Judges:—

FIRST SERIES—Comprising ploughs, harrows, and other implements for the preparation of the soil—Messrs. Dostaler, Alexander, W. Berzy, W. Boa, L. Desrosiers, O. Porron.

SECOND SERIES—Comprising mowers, and reapers, hay-spreaders, hay-forks and other implements for harvesting—Major Campbell, Messrs. DeBlois, McKellar, McDougall, P. C. L. Dubois, L. Delorme, Armand.

THIRD SERIES—Comprising threshing machines, straw cutters and other implements for the preparation of the products of the farm and for cattle food—Colonel Thomson, Messrs. Tetu, O. E. Casgrain, J. B. Daoust, G. Boucherville.

Of ploughs there were 31 entries; of harrows, 8; of mowers and reapers, 15; of threshing machines, 8; besides a number of entries of other important implements.—In the list of parties who sent in implements for competition we observed the names of Messrs. B. P. Paige & Co., Montreal; Messrs. W. Johnson & Co., Montreal; Messrs. Norse, Mason & Co., Worcester, U. S.; W. Stalter, Lancaster, C. W.; M. Moody, Terrebonne; W. A. Woods, Hoosick Falls, N. Y.; G. Laviolette, Napierville; George Henny, N. H.; B. Cole, Quebec; F. M. F. Ossaye, Montreal; John Helm, Port Hope, C. W.; Messrs. A. S. Whiting & Co., Oshawa, C. W., &c., &c.

The proceedings commenced with a trial of Mowers in a field of fine clover. Four machines were entered by Messrs. B. P. Paige & Co., M. Moody, W. A. Woods, and Messrs. Norse, Mason, & Co. Messrs. Paige's machine broke down through an accident, before the trial was half over. Each of the other machines cut an acre of clover. Messrs. Norse's Mower did the work in 39 minutes; weight 485lbs; average draught or power required to drag it through t. grass, 250 lbs; width of swath, 5 feet; cost of machine at the place where made, \$90. Mr. Wood's machine did the work in 49 minutes, from which 10 minutes had to be deducted for lost time; weight, 514 lbs; width of swath, 4 feet; draught, 175 lbs; price, \$80. Mr. Moody's did the work in 51½ minutes, having been delayed by an accident to the gearing; weight, 600 lbs; draught, 240 lbs; width of swath, 4 feet 6 inches; price, \$100 for Mower; \$120 for combined Mower and Reaper. The decision of the Judges was deferred.

The next trial was of Reapers in a field of barley, which was not in a very favorable state for fairly testing the merits of the different machines, owing to the nature of the ground, and a portion of the grain being laid and matted. Mr. Wood's combined reaper and mower did the task allotted to it in 33½ minutes; Mr. Helm's reaper and self-raker in 36 minutes. Mr. M. Moody had a machine entered for this trial, but it broke down and was withdrawn before the trial closed.

There was also a trial of ploughs, the particulars of which we reserve to be given with the account of to-day's proceedings.

SECOND DAY.

The trial of Implements was again proceeded with yesterday, Wednesday, 17th. The day was very pleasant, and there was considerable animation visible. The first part of the day's business was the trial of Paige's Reaping Machine, which broke down on the previous day. It did pretty fair work. The same jury afterwards tried an ingenious machine for sorting hay, manufactured by Messrs. Norse, Mason & Co., of Boston. It gave very general satisfaction, and from its novelty attracted considerable notice.—It sells for \$50. They then proceeded to test three rakes. One of them from the factory of Mr. Moody, Terrebonne, was much admired, being much simpler in construction than the others, was very cheap and did excellent work. The trial of Ploughs was then made, and this was then followed by the trial of Harrows, Rollers, Scarifiers, and other implements, several of which gave great satisfaction. The trial of Threshing Machines was very interesting. There were only two competitors—Johnson of Montreal, and Moody of Terrebonne. They had each two-horse machines and one-horse machines. The competition consisted in the two-horse machines, threshing each 100 sheaves. After a very satisfactory trial it was considered that Moody's machine was superior to Johnson's, in point of time consumed, and the quantity of grain yielded. There was much less difference between the one-horse machines—the time was the same, and the difference in the quantity of grain yielded was not much. The Judges then proceeded to give in their reports—a process which monopolized the rest of the day.

THIRD DAY.

Yesterday, the 18th, the concluding day of the competition, was chiefly devoted to the trial of three stump extractors, on the farm of F. M. Ossaye, Petite Cote, St. Michel. One of the machines was manufactured from a model furnished by M. Ossaye, one by George Kenny, Milford, New Hampshire, the other by B. Cole, of Quebec. The several Juries assembled in the morning at Logan's farm, and about eleven o'clock proceeded to M. Ossaye's, when the trial commenced. The machine invented by M. Ossaye was first tried, and gave very general satisfaction. This machine is of a new construction, having two levers of 14 feet long, acting upon an axeltree, worked by two small pinion wheels. It is mounted upon a wooden frame, and carried through the field on a sort of sleigh, by two horses. The levers are worked by two men, the action being perpendicular, and the operation of raising the stump being rapidly and well performed. Stumps that would take about half-a-days's hard work of one man to clear away, were taken up in less than two minutes.

The next machine tried was that of Mr. Cole, which was also on the principle of the lever, working perpendicularly, but different in detail from the other. It exhibited great power, but worked very slowly. The third was Kenny's, which is constructed on the capstan principle, and working horizontally, drawing out the stumps consequently by lateral pressure. It also exhibited great power, but was not all to be compared with Ossaye's for handy working. The first machine took up over a dozen stumps, the others only one each. The trial lasted from 11 o'clock until a quarter past two. The Judges for this trial were selected from class No. 3, and were Dr. Tache, G.B. Daoust, E. C. sgrain, and M. Tetu, of St. Thomas, C. E.

PRIZE LIST.

The preparation of the full Prize List, with the remarks of the Judges upon the various implements exhibited, and their adaptability to Canadian farming or the reverse, has been entrusted to W. McDougall, Esq., M. P. P., and will not be ready for some weeks. The following summary will, however, give the result of the competition:—

CLASS NO. I.

Ploughs for stiff soils—1st, James Jeffrey, of Petite Cote, Montreal; 2nd, James Paterson, Montreal.

Ploughs for light soils—1st, James Jeffrey; 2nd, William Evans.

Heavy Harrows—1st, James Paterson; 2d, William Stalter, Lancaster, C. W.

Scarifiers—1st, Joseph Meddlems, Jr., St. Laurent.

Horse Hoes—1st, James Paterson; 2d, James Jeffrey.

Double Mould Boards—1st, James Paterson; 2d, William Evans; 3d, Jas. Jeffrey.

Light Harrows—1st, James Paterson.

Clod Crushers—1st, James Jeffrey.

Swivel Ploughs—1st, William Evans.

Universal Plough—1st, Norse, Mason & Co.

The Judges in this class reported summarily, in regard, first, to the still soil ploughs, that Mr. Jeffrey's gave a main draught of 325 lbs., and was considered superior to the other, by the quality of work performed. The second prize plough had a draught of 375 lbs, and the work was inferior. In light soil ploughs, Mr. Jeffrey's had a draught of 300 lbs., working six metres by nine. Messrs. Evans, Norse, Mason & Co's plough, 72½, gave equal draught, but the work being flatter it received the second prize. In harrows, the one exhibited by Mr. Paterson was considered the best they could have for Canada. It is considered the best harrow in England, the model having been copied by Mr. Paterson, from an English harrow. In regard to clod crushers, the Judges regretted that Mr. Moody did not exhibit his crosskill, instead of the one he exhibited as they considered it far superior to the one exhibited by Mr. Paterson. But still his implement, on account of its small cost and the simplicity of its construction, was thought worthy of a second prize. The scarifier exhibited by Mr. Meddlems, was considered an excellent and effective implement, but far too dear to be thought of by the generality of farmers.

CLASS II.

Reapers—1st, John Helm, Jr., Port Hope, C. W.; 2d, B. P. Paige & Co., Mont'l.

Mowers—1st, W. A. Wood & Co., Hoosick Falls, N. Y.; 2d, Norse, Mason & Co., Boston; 3d, M. Moody, Terrebonne, C. E.

Combined Machines—1st, B. P. Paige & Co.; 2d, W. A. Wood & Co.; 3d, M. Moody.

Horse Rakes—1st, D. D. Dewitt, Dewittville; 2d, M. Moody.

Patent Thistle Fork for Barley and Straw—1st, Jacob Hoffman, Camden East, C. W.; 2d, George Lake, Camden, C. W.

Hand Forks—1st, A. S. Whiting & Co., Oshawa, C. W.; 2d, W. Evans, Montreal.

The Judges report generally that the trial was unsatisfactory in two or three respects. The ground was unsuitable for reapers. The furrows were deep, and there were many of them, and the crop of barley was short and much laid, and grassy at the bottom. There was but one reaper tried—a combined machine, being entered as a reaper, received the second prize. The competition in the several classes was not so extensive as the Jury would have been glad to see. The mowers were excellent, but in the other classes defects were observed which will be pointed out in the detailed report. A collection of small implements—hay-forks, dung-forks, forks, spades, hoes, &c.,—was exhibited by Whiting & Co., of Oshawa, the form, material and finish of which could hardly be excelled.

CLASS III.

Threshing Machines—1st, Mr. Moody, 2 horse; 2d, Mr. Johnson, do. Single horse—1st, Mr. Moody; 2d, Mr. Johnson.

Straw Cutters—1st, Mr. Evans, for J. H. Wilson of Harrisburg; 2d, Melcher & Co., Boston.

Root Cutters—1st, W. Evans.

Agricultural Furnaces—1st, W. Evans, N. M. & Co.

Clover Thrashing Machines—1st, Mr. Moody.

A quantity of clover was passed through this machine, but in consequence of there being no means of separating the seeds from the chaff, no result could be given. But as the machine seemed to be efficient, the judges awarded Mr. Moody a first prize.—The same judges who were present at the trial of the stump machines yesterday, including Colonel Thomson, were the judges of this class. In regard to the threshing machines, they report that Mr. Moody's threshing machine threshed in 10½ minutes from 100 sheaves 3 bushels, 9½ lbs. of wheat, and Mr. Johnson's machine in 18½ minutes, from the same number of sheaves, threshed 2 bushels, 29½ lbs., showing that there was a difference of 20 lbs., in the quantity threshed, but the time occupied by Mr. Johnson's machine being nearly double that of Moody's, the gold medal was awarded to Mr. Moody.

The competition has now terminated, and the judges generally have been very much gratified with the results. It is decidedly the best that has taken place in Lower Canada as to its practical results and testing the comparative value of the implements exhibited. There is no doubt that when another of a similar sort takes place there will be a much larger display of implements, and a much better turn out of practical agriculturists from various parts of the country, as means will be taken to make it better known than were adopted in the present instance. The collection of implements exhibited by Norse, Mason & Co., was splendid for every quality or nature of soil, and every sort of work to be performed on a farm. Many of these implements have not yet been introduced amongst us, our farmers being somewhat tenacious of their Scotch ploughs and other heavy implements that have found favor in the old country, even although the low price at which many of these lighter implements can be obtained, is somewhat of a consideration. Such exhibitions, however, have the effect of bringing practical men into contact with those varied models, and will undoubtedly tend to their introduction, wherever it is considered judicious to do so.

FLOUR FROM FRANCE.—We were informed recently of the arrival at Montreal of a cargo of French flour, which was said to be of a very superior quality. We learnt also that Mr. Merritt, of St. Catherines, had received a cargo of French wheat, which he intended to manufacture into flour at his own mills. It is a somewhat remarkable state of things that it should be found profitable to import wheat from Europe to feed the inhabitants of these heretofore fertile wheat producing countries. The scarcity here was no doubt principally owing to the late unfavorable seasons and to the depredations of the wheat fly, but unless a better system of agriculture be soon introduced, with thorough drainage, root crops, cattle feeding, manuring and greater attention to other products than merely wheat, the deficiency of the latter crop will soon be not an occasional, but an ordinary occurrence.

ANNUAL EXHIBITION OF THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND AT WARWICK.

This great national show of Live Stock and Agricultural Implements came off in the environs of the ancient town of Warwick, situated in the very centre of England, during the second week of July, and was, upon the whole, highly distinguished for its success. We subjoin extracts from the very elaborate report of the *Mark Lane Express*, and also a communication from a young Canadian correspondent, who favored us with some remarks on the Society's Show at Chester, last year.

The Warwick Show will be thus written on the record. It was a good average meeting, without anything of special importance to mark its history. The Society, to be sure, still continues to increase in influence, and in some departments the entries were, as usual, "greater than was ever known before." This was more particularly the case with the implements, which were never previously seen in such numbers, and had never been of such general excellence. But even here there was little or no novelty. The steam plough has long been a standing dish at these entertainments; although, perhaps, to people who do not go much from home it is yet the great treat of the day. Certainly in the trial fields, Fowler's plough and Burgess and Key's new mower had clearly the call. We do not speak here so much of the judges as the common body of spectators, and it is seldom we remember any machinery in work that has recommended itself so strongly to the public.

In some other divisions of both the stock and the implement departments, the interest and excitement were not so much over what was exhibited as what was done with it. Seldom have precedent and established reputation been so thoroughly upset. It was impossible to turn any way, but you met with some great man discomfited. Jonas Webb had been beaten for Southdowns; the Booths had got the worst of the Shorthorns; and the Howards not as hitherto all the best of the ploughs. The office of a judge, we can answer for, is not always the most agreeable of duties; but never did we hear men in authority so fiercely canvassed as some of those at Warwick. Still, it must not be supposed that this discussion would apply equally to the three instances we have given. On the contrary, the Babraham flock was fairly beaten by the best Southdown sheep—the Duke of Richmond's shearling—ever seen in a show-yard. Then, again, the performance of Hornsby's new plough—and finding such a plough in their name was a novelty—was extraordinary for its excellence, and he would have been a bold man who could have stood by the work and disputed the award. But the decrees over the high-bred cattle were by no means so quietly submitted to. One exhibitor, indeed—Mr. Booth, of Warlaby—has gone so far as to lodge a protest over the placing of the shorthorn heifers in calf. He does this, we believe, on the ground that his Queen of the Isles is not even noticed, and as he maintains she is clearly the best of the class, he demands to know why the Judges have disqualified her. Of course, any such objection as this can never hold water, or every other exhibitor would be making one. It is, however, only fair to say that the majority of the public also regarded this as a mistake, almost every one preferring the Queen to the second prize, and some went so far as to draw a comparison in her favour against the first. But we hardly go to this. Colonel Towneley's is a beautiful heifer, with a lovely head, a wonderfully good line along the back, and unquestionably much the better behind. It is just here that the Queen of the Isles fails; but she is truly magnificent in many other of her points; and it will always be a curious query how she was entirely passed over? Those learned in the lore will remember that Mr. Booth's was the first prize yearling heifer at Chester.

There is no denying that the Shorthorn Judges at Warwick went on something of a new principle. They would not have mere pedigree or quality answer for everything, but stood out a little more for meat, size, and substance, with symmetry. There were, too, many sound practical men ready to uphold them in what they did. In plain truth, the fashion of thing was manifestly threatening to carry itself a little too far. We were getting to delicate narrow animals, that promised soon to neither milk, breed, nor feed. There was many such an illustration, on the Warwick Show ground; and the courage of the Judges here must lead to a little wholesome correction. Admitting the two-year-old heifer case to have been an error, there was a vast deal of wild talk on other decisions, that could have been attributable to nothing but prejudice. There were some, for example, who would have denied Mr. Stratton his honours with Matchless the Fourth, the second at Chester, the first here, and now grown into as fine a cow as ever entered

a show-yard. She is a capital roan in colour, has a good head, wonderful chest and brisket, and altogether an extraordinary forehead; while she is beautifully fleshed, and almost as commendable for her general symmetry. In a word, we think no animal was ever more fairly placed, although she did beat, in addition to those named in the prized and commended list, Mr. Douglas's renowned Ringlet, and one or two more equally well-bred ones.

But the strength of the Shorthorns, and we might perhaps go on to say of the whole Show, was in the two-year-old and yearling heifers. It is significant of their uniform goodness to note the award of the judges, who commended everything they saw here. And all the best men were here too—Booth, Colonel Towneley, Douglas of Athelstaneford, Stratton, Grundy, Captain Gunter, Marjoribanks, Noel Hill, Sir Charles Tempest, and Jonas Webb, with comparatively new men, like Mr. Robinson of Clifton, and Mr. Fowler of Henlow. It has been already intimated that the selection from such stock was made by no means altogether upon previous precedent. This was not only remarkable amongst the two-year-olds, but quite as strikingly with the yearlings, some of which had already come together.

It has been a common observation of ours for some time past that the Durham cows show far better than the male animals, and this was essentially so at Warwick. Seldom has there been such a mixed lot of bulls at a national meeting. If a visitor had stopped here he would have gone back with no very high opinion of the continued improvement of the improved Shorthorn. The best aged bull, to begin with, and a long way the best of his class, was thought to be nothing beyond a useful animal, although a far better-looking beast than Lord Foversham's first prize at Chester. His symmetry is much more perfect; he has a good head, with a kindly expression about it, stands very well before, and has a rare back and capital thighs. Still there is a manifest want of style about "Radford," and he is about the worst-coloured animal we ever saw: a kind of creamy trout-spotted one, by courtesy called "a roan." The second to him is the Cobham bull Marmaduke, who has plainly seen his best day. He stands well before, but is anything but level, and threatens altogether to get worse instead of better. The second prize bull at Chester, Marc Antony, and the first prize two-year-old of that meeting, Lord Hill's Hetman, were both of them commended here; but neither is of quite first-class character. In fact, as is commonly the case with them, the pride of the Shorthorns again was with the younger animals, and two of these commanded a great deal of earnest attention. They were Colonel Towneley's Royal Butterfly, an own brother to Master Butterfly, and Royal Turk, a yearling, the property of Mr. Ambler. It might be a question with some which was the better of the two, although the market evinced no doubt about it. The present representative of the family name and honours has already reached his brother's repute. An offer of twelve hundred guineas on the part of some Australian gentlemen for Royal Butterfly was refused, while Royal Turk was sold to Mr. Langstone for three hundred and fifty. The latter, it must be observed, was not shown amongst the Shorthorns, but in the "cattle best adapted for dairy purposes." This is something of a distinction without a difference, as nearly all the animals entered were well-bred Shorthorns, some of the pairs of cows being amongst the grandest, and certainly at the same time most useful-looking stock on the ground. It was curious to see how soon Royal Turk was found out here, even in such disguise, while Butterfly's more prominent position amongst his own order commanded for him one continual crowd of admirers. He is certainly a most taking animal, with as true and handsome a bull's head as poet could wish to sing of, or painter to sketch.

If we consider the locality in which they were exhibited, the Herefords can hardly be said to have realized what was expected of them. But nothing is more uncertain than a show of this kind of stock, and nothing more uneven than the present one. There appears to be an under-current of feeling amongst the breeders, as to what the type of a Hereford should be. In many herds the original grand size has been departed from, and a neater, closer standing beast substituted. The latter would now appear to have the call. Mr. Hill's bull, the first in his class at Chester, and the best aged bull here, has nevertheless, not much improved. He is a compact, short-legged, broad-standing beast, but very dark in his colour, rather patchy, and decidedly bad about the rumps. Some of those behind him had their partizans, while the most liked of all was a very handsome young bull of the Prince Consort's, that deservedly stood as the first of his set. The second prize two-year-old, a very well-formed beast, is noticeable as having been calved in the yard at the Salisbury show, and hence his name. It struck us the

cows and heifers evinced more of the true, fine character of the Hereford than the males; and some of them were really perfect specimens of their kind. Still neither these nor the Devons had anything like the popularity of the Shorthorn, notwithstanding that the latter were especially well represented. Mr. Quartly, Mr. Turner, Mr. Merson, and His Royal Highness the Prince Consort, sent some patterns of purity, and these were well backed by Mr. Farthing, Mr. Umbers, and others. Mr. Farthing's prize bull is of great length, and Mr. Quartly's particularly handsome. An old favourite of ours, however, Mr. Merson's Prince of Wales, could get no further than a commendation; but the gem of the Barnstaple show, the Prince's yearling, distinguished herself as we anticipated. She was only beaten for first place by a yet more handsome heifer than herself—another of the Quartly's. But His Royal Highness may honestly plume himself on his Devon herd, bred with remarkable care and judgment, and showing perhaps even to more genuine advantage at the Norfolk Farm than even on the course at Warwick. In the cow classes, the awards recently made in the West-country were partially corrected, and with little question as to the wisdom so exercised by the superior court. Still there was no desire shown to pass over good useful properties when duly combined with the orthodox points of that most attractive looking and truly symmetrical animal—the North Devon.

If the Warwick show be remarkable for any one feature in which it surpasses the previous meetings of the Society, it is in the entries of riding horses. Taking the general strength of stallions, mares, and hunters, they have never been so good. This, no doubt, may in some measure be accounted for, from our being here in the very centre of a famous hunting country; but, still, in proof of the increasing interest evinced for such classes, many of those exhibited were sent from long distances. The section opened well with as good looking a thorough-bred horse for getting hunters as the Royal gatherings have ever yet attracted. Hunting Horn, to begin with, is by far the best bred horse of the lot; but he combines with this the most extraordinary power, size, and substance. In fact, he was so big as a young one, that he never could be properly prepared, and even now at five years old he can hardly be said to have quite formed or furnished. Should he only go on right, and fine a little about the shoulder, he must in a year or two's time develop into a magnificent animal. When we remember such prize stallions as Spencer, Ravenhill, and Loutherbouurg, we may well feel satisfied with such a successor to them as Hunting Horn. The thorough-bred horse award at Chester last year was "corrected" the very next week in Yorkshire; but we should think a new trial need hardly be granted here. Still there were two or three well-known horses sent, such as The Ugly Buck, Sprig of Shillelagh, and Sir Peter Laurie. The last-named of these is not so great a horse as one would expect to see; and The Ugly Buck, light and very racing-looking, has the credit of getting better hunting-stock than he would quite promise to do. Three or four very coarse, evidently half-bred animals were also shown in this class, but of course unnoticed. The hunting mares, as a lot, were better; and there were some half-dozen of them especially good. The prize in the first instance was awarded to perhaps the finest mare for such a purpose ever seen on a show-ground. She is now the property of Mr. Fowler, of Aylesbury, but was sold two or three years since for no less than nine hundred guineas to carry the Empress of the French. Her right eye, however, went, either from disease or accident, and she recrossed the Channel. The veterinary surgeons attributing its loss to the former cause, refused to pass her; although up to the end of the week "Empress" appeared in the list as the first prize mare. We were bold enough to inquire of one of these inspectors how it was she was first on the list and nowhere in the show itself. His reply was, that "it was simply a clerical error," which is a fine Delphic oracle kind of answer, no doubt, though what it really means we have not even now the slightest possible idea. If we stood in Mr. Fowler's place we should distinctly request to know why the veterinary surgeons disqualified his entry after the judges had passed her. Such a protest is a very different kind of objection to that of Mr. Booth. Blindness may or may not be hereditary, and we will not venture to say which it is in this case; but nine times out of ten it is not, and at any rate Mr. Fowler is surely entitled to know "the reason why." The famous stallion Defence was blind for many years, but few of his stock, that we are aware of, took this malady from him. A thorough-bred brood mare, the property of a near relative of our own, was stone blind when put to the stud; but she threw nearly a dozen foals that were trained, hunted, and ridden as hacks, without one thus failing. Horses go blind from infinite causes—over feeding, bad stabling, hard work, and all

kinds of things. But it yet remains to be proved that any of these are hereditary, or, in other words, disqualifying reasons. Mr. Fowler distinctly asserts his mare went wrong from an accident; the veterinary surgeons, on the other hand, trace this to primitive disease. The question is, which of the two is the real fact. Of course "a clerical error" is no answer at all, especially as one of the judges assured us they had picked her out as the prize mare. Even more than this, the other eye might "go" from mere sympathy, and at any rate the point is worthy of some more definite explanation than that conveyed in "a clerical error."

No less than four-and-twenty were nominated for the hunter prize, and the judges commended every one of them. In a word, the Society is making a wonderful advance in this way, and there really was hardly a horse shown but his owner might have fairly expected to win with him. By some happy instinct the judges again got hold of the best-bred one—by Drayton, dam by Steamer—the very pedigree for a hunter, and a horse of rare, grand style, with a beautiful flat leg, over seven inches round below the knee. Lord Berners stood second with Barbara, and then we had Mr. Booth highly commended for a very clever Barton horse, and Mr. Formby and Mr. Arkwright as greatly distinguished. Many leant also to a bright bay of Mr. Berry Congreve's, as "about as good as anything," and we hear he was sold during the week at a long figure. The ponies did not muster so strong, but they were all good. Mr. Cresswell Wall sent two that we noted at the time as in favour at Barnstaple; a very pretty one of Mr. Sullivan's came from Dublin, and Sir Piers Mostyn, as at Chester, headed the class with that handsome galloway, Young Bantam. But it was hardly fair to compare him with that little bit of perfection, the brown Monmouthshire pony at his side. The hack mares were indifferent, and, on some showing we cannot understand, the judges appeared to select the most under-bred Lairy-heeled of them all. However, quite enough was done at Warwick to prove that the Royal Agricultural Society can accomplish that which the Council once declared they never could—a creditable or even excellent entry of riding horses. Moreover, be it ever remembered that it is decidedly one of the most popular sights of the show.

The agricultural horses were not so generally commendable, and hardly in any way up to the mark of some former anniversaries. Neither of the two prized all-aged stallions were really first-class horses; and the judges had some difficulty in deciding which was the better of them. The preference, on a division, was given to a smart, compact Lincoln horse, with the strong drawback of indifferent action. Mr. Clayden's Suffolk has already been distinguished as the best yearling at Chelmsford and the best two-year-old at Salisbury. He is a famous topped horse, of great size, but with something very like a malformation in one of his feet. Although so far so good, the Suffolk men fancied something better of their sort had been passed over, but the breed took a much better standing than it often has done at the Royal Meeting. Mr. Frost, Mr. Wrench, Mr. Bedham, and Mr. Barthropp sent some of those famous mares we have had so much to say of lately; and Mr. Crisp had his "Emperor," which did get a prize at Chester, and that all his friends declared should have had one now. He is grown into a grand colt, and is sure to be heard of again. It is remarkable, as showing the strength of one particular strain, that the best mare, the second mare, and the best two-year-old filly were all by the same horse, "Royal Duke." There was a ready market for the chestnuts even in this land of blacks, browns, and greys; and Mr. Frost sold his mare for 120 guineas, Mr. Wrench his two-year-old for 90 guineas, and Mr. Barthropp a lot, of a mare, her foal, and a two-year-old, for something over two hundred, to Lord Shrewsbury. Neither of the Crettingham horses was entered. The "Hero," indeed, has shown temper this season, and Mr. Rarey was to reason with him at the Alhambra on Saturday last, but we did not get up in time to witness their interview. A Suffolk on his marrowbones would be something of a sensation for the West-end class!

Judged by their own merits, and altogether independent of any peculiar fancy or fashion, the two best stallions for agricultural purposes were the first prize dray horse and Mr. Holland's bay two-year-old. The latter distinguished himself at the West of England meeting last month, when he spoke of him as "promising to furnish out into a great fine horse;" a notion which his visible improvement since then goes more and more to confirm. The dray horse, England's Glory, got by England's Glory, and he himself the sire of England's Glories, an echo that must lead to confusion sooner or later, still bears marks of the mishap he met with last year on his way to Chester. But he shows remarkably well. Lively and active, of immense power and substance, short

on the leg and very true in his symmetry, it is pardonable to find his owner challenging all the world with him. There were some other good Shire horses, as the prize lists will show, and one or two of no great style, so adorned with the prize medals of previous years, that people wondered where or how long since they gained them. The black horse of the Midlands must be going out of repute, at any rate he was very scantily represented here, and it is seldom at a national show we have had the Clydesdales in such little force. The Prince Consort sent one of his own breeding, which took a second prize, a neatish, close-made filly, by the Chelmsford Britain, that we recognized at once the other day from his clever action, as he took his morning walk at bush-harrow, near the Shaw Farm. The Warwick local premiums for cart horses were noticeable for a few capital working pairs, some of them wonderfully well-matched.

The strength of the Sheep Show centered clearly in the short-wools. Notwithstanding that Mr. Sanday and Mr. Fawlett lent their aid to the Leicesters, the class was not much fancied, and the theives particularly were objected to, as light and delicate, and deficient in that great recommendation to an Englishman—a good leg of mutton. With still some good rams to recover them, the Leicesters were, as a whole, below the average of many former meetings. The Southdowns, on the contrary, were never so good. As we have already intimated, the Duke of Richmond was declared to have the best type of a Down ram that has ever been exhibited. We have long maintained there is a purity of character about his Grace's flock which scarcely any other can demonstrate. Whether this be attributable to care, climate, or soil, we cannot say: perhaps to a combination of the three. Great care has clearly been evinced in crossing with some of the picked of Mr. Jonas Webb's rams, and the result is that the latter for the time at least is well beaten. In the Shearling Ram class Mr. Webb entered no less than eleven and the Duke but four. The award, however, was never, we believe, for a moment disputed, and the shearling Southdown vied with Royal Butterfly, the four-year-old hunter, and Mr. Harrison's pig, for the great honours of the occasion. The Babraham entry did not extend beyond this, and amongst the all-aged rams and the ewes, the Duke had consequently an easy victory: Mr. Rigden, in fact, was the only man who came at all near him; while Lord Walsingham, who seems to depend quite as much on feeding as breeding, had in such company not "the ghost of a chance." The Short-wools "not Southdowns" were in their collected force yet more remarkable. In truth, there never was such a lot—either for so many or so good. There were Oxford Downs, West Country Downs, Shropshire Downs, and Hampshire Downs—each variety with some especial characteristics of its own; but all with those great points for the farmer—plenty of mutton and wool. The judges here, again, commended whole classes; but they went for choice to the West Country, and great was the admiration over Mr. Humphrey's entries. The Oxfords stood next, with Messrs. Druce, Bryan, and Charles Howard, asserting the rights of this novus homo. The Shropshires had an especial class to themselves, and generally a good even show of them, but hardly evincing that advance which has latterly been expected. The Cotswolds had, as usual, all the call of the other long-wools, with Mr. Garne, Mr. Fletcher, and Mr. Walker this year in the ascendant. But the breed did not command that attention it would have done in other localities. What people dwell on here in the way of varieties was not so much "other long-wools" as "other short-wools."

In no division was the improvement more decided than in this year's exhibition of pigs. Almost the only objection now is to the sub-division made amongst them, so indefinite as to be little more than a mere matter of fancy. One man calls his a "large," and his neighbor his litter "a small breed," and as scarcely any one could say which was which, the distinction passes accordingly. Surely a much better way would be to classify them as blacks and whites. However, a good pig, like a good horse, can hardly be of a bad color, and whites, and Berkshires, and blacks and whites, and Essex and Suffolks alternated in the ascendant. As usual, there were some lamentably over-fed, and one immense white-beast died early on the Wednesday. We wonder if it ever happened that a judge disqualified a pig for being over-fed? However, the judges here were evidently well satisfied with what they saw. They commended generally every class of Berkshires brought before them, and they did as much for some other sorts in the local list. There was more meat and less offal. The big pigs especially, were the "cleanest" they had seen, and Mr. Harrison's white boar was a very marvel of size and quality. He was two feet four and a half across the shoulder; he was six feet five in girth round behind the shoulder; he was smart and active when,

you had him up; and, as we have declared already, he was one of the sights of the day. The Berkshires were, again, never more "evenly" good, and never better, and the Prince Consort sent the prettiest and most perfect white Windsors His Royal Highness has ever yet bred. There was no poultry show, and certainly nobody seemed to miss it more than Mr. Harrison Weir.

We must ask some of our own staff to complete the picture, and to say how the implement makers fared, the judges worked, the stewards acted, and the public behaved. The latter, if anything, were almost a little too much interested, and the manner in which at times they got in the way was something to try the most even-tempered men, the state of the thermometer and all things considered. In the trials of the ploughs and mowers more particularly, the mere lookers-on were wonderfully active. They advised the judges, they counselled the exhibitors, and they defied the stewards with great resolution and authority. But still there was something to be offered in extenuation. They really did take a part in what was going on, as they proved before the week was out. Never before were there such good customers. Never yet did "the trade" do so good a business. From Mr. Fowler and his steam-plough down to swing-gate and pulper makers, many were fairly sold out. The trials resulted in some two or three very noticeable conclusions. Fowler's plough, for one, was indisputably the favorite in both its work and machinery against Smith's cultivator, and the public went generally with the decision. Then, Burgess and Key's mower confirmed the reputation that had preceded its arrival here. It did its work well, easily, and with a certain simplicity in its action that are sure to tell. We have already referred to "the surprise" occasioned by Messrs. Hornsby's success with their new plough. It will be found that they stand first for both the light and the heavy land; but that the Howards still keep their position intact as the makers of the famous general purpose plough.—Hornsby has something of a novelty in the construction of his implement, which is detailed elsewhere, but was confided to a Bedfordshire man to carry it out. The ploughman Browne was originally with the Duke of Bedford, at Woburn, and subsequently we believe with the Messrs. Howard. He has profited by his education, and been champion in many an All England match. The only wonder is how he was allowed to leave his own neighborhood. The Ransomes' second and second over again went to assert something, a distinction without a difference, and as we said last week, much of it was from the first a hard struggle between Grantham, Bedford, and Ispwich.

From our special Correspondent.

BRIDGWORTH, SALOP, July 19, 1859.

The ground where the Royal Agricultural Society held their great Annual Exhibition, is situated on the west side of the very ancient borough of Warwick, on a piece of land of very large extent, known as the Race Course—this being the ground which is kept by this town for the "Isthmian games." The Show-yard is an enclosed area containing twenty-six acres; the transformation of this large piece of ground, from an extensive green sward, where, in the summer evenings, the youthful community are in the habit of devoting their leisure hours to the manly game of cricket, to a town of canvass, inhabited by all that is relative to the noble science of agriculture, is a remarkable event, which will be long held in memory by the inhabitants of Warwick. Near to the Show ground is a hill overlooking the vast extent of interesting and beautiful country on the one side, and the borough with its remarkable earth, ancient churches, and interesting public buildings, on the other. In the interior of the Show-yard the walking powers of the visitor are considerably taxed. Shed after shed stretches itself away from one side of the yard to the other, and more time is required than is allowed, to walk the entire length of every shed, and to examine thoroughly all that is contained within them; of this, perhaps, you will be better convinced when I state that the implements alone, (not including machinery at work) occupied thirty-four sheds, eighty-four yards long by twenty feet wide; besides these, and an almost equal number occupied by stock, there are many side-sheds for seeds, poultry, cheese, and extras.

The competition in the cattle department was exceedingly severe. The first, second and third prizes were of course, the great object of attraction. In the general stock department, the high fame of the exhibition was well maintained, yet, I am inclined to think that the show of horses was not equal to that of last year at the ancient town of Chester. Amongst the cattle, the Short-horns seemed to attract most attention. The

rich variety of their color, and their fine symmetrical form, accounts, perhaps, for the popular admiration they generally excite. This breed was represented by no fewer than 163 animals, and most of them perfect types of the short-horn. The show of Herefords was also very fine, they possessed an evenness of growth, and had none of those heavy protuberances of fat which many used to admire. The Devons were indifferently represented as to numbers, but many beautiful specimens were exhibited, particularly those shown by Prince Albert, which were entitled to the distinction known as "commended." His Royal Highness the Prince Consort, obtained a first prize in the bull-calf class. Sheep mustered strongly, and like the cattle, showed marks of steady and general improvement. In the Southdowns, whose characteristics are a fine quality of meat, and short close wool, the celebrated breeder, Mr. Jonas Webb, was defeated by the Duke of Richmond. The show of pigs was equally fine. The display of agricultural implements and machinery was a source of great attraction. Agricultural machinery, like all other machinery, has bent itself to the law of progress and improvement. The agricultural classes, unwilling at first to acknowledge the mighty power of steam, and the scientific skill of man as applicable to the culture of the land, have learnt and are still learning how wonderfully labor may be abridged and the land improved by the application of this machinery, and the adaptation of science to the various occupations of the farm. How very useful then must these annual meetings be, when the most skilled and the most famous of England's manufacturers send forth their excellently adapted implements not only for exhibition but for competition. It is a gathering together of the best their factories can produce, and every farmer has not only an opportunity of inspecting them, but a chance of seeing them on trial.—Warwick is a good example of an ancient town, the more remarkable as standing in such close proximity and contrast with its new neighbor, Leamington. But during the Show Warwick lost somewhat its antique and venerable appearance from the numerous banners and various other decorations, almost covering every building. Approaching the town, the castle forms a magnificent object, as it rears its long front and massive towers with stern majesty against the sky. This castle, which is considered the most splendid relic of feudal times in England, is approached by a long winding narrow passage, deeply cut through the solid rock; the numerous branches of the variegated and thickly planted wood forming a canopy above, with the moss and ivy creep, and in fertile wildness beneath, forms a picture romantic and pleasing. Continuing on and passing what is called the great gateway, the vast extent of the building is seen; here the Lane is presented to the view, and excites admiration. The spacious area of the court is clothed by a carpet of rich green sward. On the one side stands the grand irregular mansion of the feudal Barons of Warwick; on the other, many dark massive towers and embellishments. The scene is truly a grand one, "and so perfect is the fascination, that it would be difficult to say what might be added that could improve, or what might be taken away that would not injure the effect of the whole." This castle, perhaps, the finest now in England, has been the scene of many a bright and many a gloomy occurrence.

I am very much pleased with Shropshire, it is a fine picturesque agricultural country, resting extensively on the New Red Sand Stone of the geologists; a formation largely developed in the centre of England, and particularly favorable to agricultural purposes. A large breadth of turnips are cultivated here, and extensive flocks of Shropshire Downs are bred and fattened. There are several good herds of Shorthorns, and other breeds of cattle kept in the county, and barley is extensively grown, of the finest malting quality. The four and five year's courses of rotation seem pretty generally to obtain. The farmers as a body seem well to do, and comfort and order appear to pervade the whole texture of social life.

The scenery from the *Wrekin*, a noted hill or rather mountain, in this county, is truly magnificent. The summit commands a view over sixteen counties, the finest and most extensive view I ever beheld. Looking towards the west the vast extent of country, with many towns and villages scattered over its surface, was bounded by the blue far distant hills of Wales; while towards the east the country appeared like a vast plain, or perhaps more correctly, garden. The scenery is not wild and romantic as that of Wales or the Highlands of Scotland, but it is peculiarly rich and beautiful, calling forth in the spectator the deepest feelings of admiration. Sheep do well on the lower portions of these hills, and the valleys, particularly that of the lovely Severn, sustain an incredible amount of sheep, horses and cattle. The agriculture of Shropshire, as far as I could judge, appears to be in an advanced condition. G. W. B.

WHEAT GROWING.

Although it will be rather too late in the season before the following article, copied from the *Rural New Yorker*, can be in our readers' hands for it to be of much practical benefit this year, still we think it may be useful to give it, as corroborating the letter from Messrs. Whitney & Co., in our last issue, and as contributing to the general information on so important a subject:—

EVADING THE MIDGE.

It is nearly ten years since a full crop of wheat has been produced in the State—the prevalence of the midge (miscalled weevil) in these sections which formerly produced the great staple most abundantly, and the consequent partial or entire destruction of the crop, having caused a great change in agricultural operations and materially depreciated the value of farming lands in many localities. Farmers who had mainly cultivated and depended upon a wheat crop for a long series of years, were suddenly confounded by the appearance and ravages of a myriad-headed enemy, and knew not what to do to alleviate the calamity. In some districts of Central and Western New York, wheat culture was given up with scarcely an effort to head or counteract an enemy which seemed more numerous and devouring than the locusts of Egypt, and attention directed to other crops, stock breeding, grazing and dairying—thus inaugurating a comparatively new system of husbandry over a large extent of country. The change was of course somewhat difficult and expensive, so that the profits of the farm were, for a time at least, greatly diminished. In some localities, however, many farmers continue to sow and harvest wheat, though generally with little success until recently, and after adopting a change of varieties and other requisites.

The ordeal has been a serious one, but the skies are brightening, and we believe that wheat can again be abundantly and profitably grown in sections where the midge has prevailed and proved so destructive for several years. Indeed we think the experience of wise and prudent cultivators has already demonstrated the correctness of this opinion. Last year many farmers succeeded in evading the midge, and growing excellent and profitable crops of wheat—and their success induced others to sow somewhat extensively last fall, from which a good yield has been obtained the present season.—This result has been achieved, mainly, by a change of varieties, time of sowing, and mode of culture. Though the weather has been remarkably favorable for the growth and maturity of the wheat plant this season, the success of our cultivators is in a great measure attributable to their wisdom and foresight in management—for the midge was not destroyed by the June frost, as many suppose, but appeared in myriad swarms at the usual period, ready to attack and destroy the staff of life. The wheat plant escaped only for the reason that it was so far advanced at the period when the insect usually operates as to be invulnerable.

Within the past month we have devoted no little time and attention to the investigation of this subject, visiting various localities in this region for the purpose of examining the growing wheat of different varieties, and ascertaining as to time of sowing and culture. We have seen as fine fields of wheat in various parts of this county as were grown previous to the appearance of the midge. In every instance where early varieties were sown at the proper time, on good, dry and properly prepared soil, we have found the crops good—excepting only where the severe June frost proved injurious. As remarked two weeks ago, we are aware that “one swallow does not make a summer”—that the present season has been remarkably favorable for the growth and maturity of the wheat plant—yet, from information obtained, last season and this, from observation and intelligent cultivators, we are satisfied that the former great staple of this section of the Union can still be successfully and profitably cultivated. And yet, confident as we are in this opinion, we do not wish to excite hopes which may not be realized—and would not advise those who have changed from wheat-growing to other branches of husbandry in which they are now succeeding, to return at once or fully to the former staple. The soil of a large portion of this State is eminently adapted to the production of wheat, and in some sections—if the enemies of the crop can be evaded—it will probably long prove the most remunerative crop that can be grown. Hence, we believe it advisable for those who own good wheat soil, and are not profitably engaged in other branches, to try wheat culture again—returning to it gradually and on a small scale, until satisfied as to the safety and profit of a full resumption.

The practical question which arises among cultivators is: How can we best evade the midge? Many conjectural and some very plausible theories have hitherto been promulgated on this point, few of which have proved of any great value, being either impracticable or too expensive. The result of careful experiments, by some of our most intelligent, observing and experienced grain growers, however, proves that there are three requisites to successful wheat culture in regions where the midge prevails, and these we will briefly enumerate and discuss.

1st. *Varieties*.—The most important requisite is to secure and sow seed of early and hardy varieties—such as the Mediterranean, Golden Drop, Dayton, &c. Those who have grown these, and experimented with more recently introduced varieties, the past year, have been quite successful. The Mediterranean has improved in quality of late years and also in productiveness. In some instances, last year, from thirty to forty bushels per acre were produced in this county, the grain being of excellent quality, and we presume (from the fields we have examined) that the yield and quality will both prove good the present season. The Dayton variety was grown in Genesee county last year, and gave good satisfaction—escaping the midge and producing thirty five bushels per acre. Other new varieties have been tried on a small scale this year, such as the Boughton Wheat, (seed from Virginia) by Mr. Wray, near this city, and the Early May, (seed from Southern Illinois,) by Mr. Jas. White of Wayne county.—We hope to hear soon from these and other gentlemen who have experimented with new varieties, and that they will state time of sowing, yield per acre, quality, &c., for the benefit of the public.

2nd. *Time of Sowing*.—The general opinion among our best farmers is, that whatever seed is used, it must be sown early to escape the midge. Some are of opinion that the Soule's wheat can be successfully grown—as it has been this past season—by sowing as early; as the first of September on rich, dry and well prepared soil. We should prefer the early varieties, such as those named above, and would sow as early as possible after the 25th of August—say the last week in August or first in Sept.

3rd. *Soil and Culture*.—Early varieties and early sowing will prove of little avail without a rich, dry wheat soil and good culture. The great cereal cannot be produced advantageously on poor wet land in any part of the Union, and especially in sections where the midge prevails. To produce wheat abundantly and profitably the soil must contain the proper elements, and be in the right condition. In many cases under-draining is of the utmost importance, even on farms where it is not considered necessary. No one need expect to grow good wheat, and evade the midge, unless he has a rich, warm and comparatively dry soil, and gives it good culture—but with these, and attention to the requisites above named, we believe wheat can again be cultivated successfully in Western and Central New York and other midge infested sections of the country.

THE WHEAT MIDGE.

We are indebted to a very intelligent agriculturist, Mr. John Wade, of Port Hope, for the following letter. It speaks for itself:—

(To the Editor of the Globe.)

DEAR SIR,—I have been watching with much interest the almost daily communications you receive, relative to the prospects of the present harvest. Among the many communications you have published, I notice a series of questions, proposed to be issued as circulars by the Hamilton Board of Trade. I am most happy to endorse the heading you have given to it ('A Sensible Move'); and I intend to answer the questions, whether I receive one of their circulars or not, by the time proposed, viz., the 7th of this month. But in the meantime, I wish to avail myself of a small space in your widely circulated paper, to say a few words about the midge (*Cecidomia Tritici*.) Prof. Hind, in his prize essay, did me the honour to notice a communication I addressed to the "*Canadian Agriculturist*" in September, 1856. Quoting a passage from that letter with regard to the wheat midge, I stated at that time 'That the Fife wheat is now as good after being grown seven years as it was at first, without the least sign or vestige of failure, in any shape except from weevil; and to know that you can be sure of a

crop of wheat sown as late as the 10th of June, and to fill and ripen without a speck of rust, and to yield 20 to 30 bushels an acre, is surely a consideration.'

What I stated in 1856, with a considerable degree of confidence, has been, I rejoice to say, fully borne out by three years more experience.

And what I would like to bring before the public at this time is a theory I entertained seven years ago, and which in my mind is fully established—that the ravages of the midge are confined to about 10 days; and that fall wheat which has shot before the 25th of June, has for all this time comparatively escaped; while both fall and spring wheat shooting between the 25th of June and the 7th of July, has been more or less injured; and then the spring wheat coming in after that time has escaped the midge.

I will now give you the result of my observations for the present season, in this vicinity.

The midge was first perceived on the wing on the 27th June, and in that shape till the 7th of July. All wheat in head before the 27th of June, was not much injured; while all which shot between the 27th of June and the 7th of July, has much of the maggot in it. A neighbor has a field of club wheat sown in the second week of April, clear of insects; while another piece of land sown with Fife at the same time, is full of it. This is accounted for by the Club being ten days earlier in maturing. I have visited several fields in this neighborhood within the last two or three days. One field sown on the 5th of May, will be damaged nearly 25 per cent; another sown on the 8th will suffer about 20 per cent.; and all I have yet seen which was sown after the 12th is clear altogether.

I send you these few particulars, with the hope that it will draw the farmers to make closer observations, as to time and the habits of those enemies of our crops, than they are generally in the habit of doing; having myself more faith in evading the mischief than curing it, by trying to destroy the insects themselves.

I am, dear Sir,

Yours most respectfully,

JOHN WADE.

Hamilton Gardens, near Port Hope, }
August 4th, 1859. }

A correspondent sends us a head of spring Fife wheat, touched by the midge, and appears to think it somewhat remarkable that it should be so affected. It is not at all uncommon. The Fife wheat is only valuable for its power of resisting rust. It can be sown late to avoid the fly, without being liable to the ravages of the other diseases. From the case mentioned by Mr. Wade, it is quite evident that the fly in spring wheat may be avoided by early sowing as well as by late. The fly did no injury, it would appear, at Port Hope, to wheat which had shot before the 25th of June. We should like to have information from other places as to the date of the insect's appearance.—*Globe.*

WHEAT FLY—DRAINAGE.

To the Editor of the Colonist.

SIR,—Having carefully read the several communications that have appeared in your columns, including your own remarks, on the subject of this country's greatest enemy, namely the wheat midge, I must say if your own suggestions were acted upon, the fly would soon be exterminated; but I cannot learn from any one of your correspondents what the results has been to any of the systems recommended. It is evident, however, from the information furnished that the evil only appears for a few days in its destructive form during the season; and the farmer whose wheat crop is either too far advanced when the insect appears as effectually to resist its ravages, or too late to feed it, may be considered fortunate.

I would ask, is it prudent for any man, or class of men, to trust to chance in overcoming difficulties that every path in life is liable to, when a remedy founded on experience is at hand, which, if applied, will place the interest involved almost beyond the reach of chance?

That the soil of Canada can be cleared of the pest which now threatens its prosperity must be obvious to any one having studied the history of agriculture in Britain. Effic-

tual drainage and good management has rid the best wheat lands of Scotland of the insect, and increased the average production per acre from eleven to over thirty-five bushels. The same process, if vigorously set about, will accomplish in a similar manner in Canada the desired success, and avoid the necessity of our agriculturists substituting coarse red wheats for our beautiful white samples, which command the highest price wherever they are offered for sale.

The following is a case in point, the result of under draining. A friend of the writer living in the State of New York, on land similar to the best grain farms in this county, had given up sowing wheat owing to its annual destruction by the midge, but having experienced benefits in England from draining, began in 1856 a similar process, which he thought from the position and nature of his land to be useless. That season he drained half of a ten acre field to the depth of four and a half feet and thirty feet apart, prepared the whole field and sowed it with Soule's wheat on the 5th of September. The following spring, when the roller was applied, the utility of draining was very perceptible, and at harvest time a hundred fold more so. The five acres that were drained, the grain was ripe ten days earlier than the other, and yielded over forty bushels to the acre of a fine quality, whilst the undrained portion of the field scarcely returned fifteen bushels to the acre, the insect having made such havoc in it.

The sequel to a thorough system of drainage, arrived at on scientific principles by men of note in England, can be learned by a reference to the last edition of the "*Encyclopaedia Britannica*," under the respective heads of "*Agriculture*" and "*Drainage*." It appears that the temperature of the soil at a depth of 7 or 8 inches on well drained land, was found to be, from thirty-five observations made by Mr. Parker in Lancashire, ten degrees higher than on land in its natural state at the same depth. Now if the same effects can be produced here from draining, of which one would suppose there need be no fear, vegetation in early spring would be sufficiently promoted as to place our tenderest wheats ahead of the midge's time and be a safeguard against rust. The expense of draining on a system like the above may deter many farmers from undertaking it, but let them once experience its benefits and rest assured it will be vigorously prosecuted. Those who care only for the present generation may substitute three cedar rails and brush for tiles, which will answer every purpose and save the cost of the latter, but no one should think of draining to the depth of less than four and a half feet and thirty feet apart, and if they should decide on placing the openings at a less distance apart corresponding advantages will accrue.

Toronto, August 17, 1859.

T. B.

Colonist.

FEED FOR HORSES.—The London Omnibus Company, says an exchange, have recently made a report on the feeding of horses, which discloses some interesting facts. It seems that the company uses no less than 6000 horses; 3000 of this number have for their feed bruised oats and cut hay and straw, and the other 3000 get whole oats and hay. The allowance accorded to the first was—bruised oats 16 lbs.; cut hay, 7½ lbs.; cut straw, 2½ lbs. The allowance accorded to the second—unbruised oats, 19 lbs.; uncut hay, 13 lbs. The bruised oats, cut hay and cut straw amounted to 26 lbs., and the unbruised oats, &c., to 32 lbs. The horse which had bruised oats, with cut hay and straw, consumed 26 lbs. per day, and it appears that it could do the same work as well, and was kept in as good condition, as the horse which received 32 lbs. per day. Here was a saving of 6 lbs. a day on the feeding of each horse receiving bruised oats, cut hay, and cut straw. The advantage of bruised oats and cut hay over unbruised oats and uncut hay is estimated at five cents per day on each horse, amounting to \$300 per day for the company's 6000 horses. It is by no means an unimportant result with which this experiment has supplied us. To the farmer who expends a large sum in the support of horse power, there are two points this experiment clearly establishes, which in practice must be profitable; first, the saving of food to the amount of 6 lbs. a day; and, secondly, no loss of horse power arising from that saving.—*Maine Farmer.*

PRINCIPLES NOT PRODUCTS ENTITLED TO AWARDS.—The *American Agriculturist* calls for a reform in the management of agricultural societies, and says their exhibitions should be made a means of contributing to the science of the art of husbandry, by having the reports and addresses carefully prepared by eminent practical farmers; and advocates offering premiums in each class to those who can combine the most science and utility with the greatest economy in production.

PROVINCIAL AND STATE FAIRS, FOR 1859.

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| Alabama, at Montgomery,..... | November 15, 16, 17, 18. |
| California,..... | September 27, to continue 10 days. |
| Canada West, at Kingston,..... | September 27, 28, 29, 30. |
| Connecticut, at New Haven,..... | October 11, 12, 13, 14. |
| Illinois, at Freeport,..... | September 5, 6, 7, 8, 9. |
| Indiana, at New Albany,..... | Sept. 26, 27, 28, 29, 30 and Oct. 1. |
| Iowa, at Oscolossa,..... | September 27, 28, 29, 30. |
| Kentucky, at Lexington,..... | September 13, 14, 15, 16, 17. |
| Maine, at Augusta,..... | September 20, 21, 22, 23. |
| Maryland, at Frederick City,..... | October 25, 26, 27, 28. |
| Michigan,..... | October 4, 5, 6. |
| Nebraska, at Nebraska City,..... | September 21, 22, 23. |
| New Hampshire, at Dover,..... | October 5, 6, 7. |
| New Jersey, at Elizabeth,..... | September 13, 14, 15, 16. |
| New York, at Albany,..... | October 4, 5, 6, 7. |
| Ohio, at Zanesville,..... | September 20, 21, 22, 23. |
| Pennsylvania, at Philadelphia,..... | September 27, 28, 29, 30. |
| South Carolina, at Columbia,..... | November 8, 9, 10, 11. |
| Southern Central Agricultural Society, at Atlanta, Georgia,..... | October 24, 25, 26, 27, 28. |
| St. Louis Agricultural and Mechanical Association, Mo., at St. Louis,..... | Sept. 26, 27, 28, 29, 30 and Oct. 1. |
| Tennessee, at Nashville,..... | October 5, 6, 7. |
| United States, at Chicago,..... | Sept. 12, 13, 14, 14, 15, 16, 17. |
| Vermont, at Burlington,..... | September 13, 14, 15, 16. |
| Wisconsin, at Milwaukee,..... | September 26, 27, 28, 29, 30. |

COUNTY AND TOWNSHIP AGRICULTURAL EXHIBITIONS AND SEED FAIRS, THIS AUTUMN.

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| Berlin Seed Fair,..... | August 23. |
| Waterloo Village Fair,..... | September 13. |
| East Durham and Township of Hope Exhibition, at Port Hope,.... | October 11. |
| South Riding of Wellington Seed Fair, at Guelph,..... | August 24. |
| Do. do. Fall Exhibition of Stock, &c. | October 4. |
| Guelph Township Show, at Guelph,..... | October 5. |
| Erin Township Show, Erin Village,..... | October 19. |
| North Wellington Show, at Elora,..... | October 11. |
| County of Perth Seed Fair, Stratford,..... | September 1. |
| Do. Monthly Market Fair,..... | September 1. |
| Moriston Seed Fair,..... | August 22. |
| Hespeler Seed Fair,..... | August 27. |
| Galt Seed Fair,..... | August 30. |
| Toronto Market Fair,..... | August 24 & 25. |
| Union Exhibition of the City of Toronto and West Riding of York, .. | Sept. 14 & 15. |

STATE FAIR AT ALBANY, 1859.—The erections at the show grounds are progressing, and the most satisfactory arrangements for the Fair will be in readiness for the accommodation of the public. From the evidences before us we are warranted in saying that the approaching Fair will be one of the best the society has held; not only from our own State, but from the New England States, the exhibition promises to be larger than any held by the Society. Hon. John A. Dix has accepted an invitation from the President, Mr. Conger, to deliver the annual address at the State Fair.—*Journal New York State Agricultural Society.*

The Maryland Agricultural College, a new institution organized on a liberal basis, will be open for the reception of students on the first Wednesday of October next.

STEAM PLOUGHS—FARMING BY STEAM.

We published a few days since a description of the Fawke's steam plough, an invention which must revolutionize farming upon the prairies, and in this connection it may not be amiss to call attention to the great advance made by Great Britain, especially England, in cultivation by steam. In England, farmers already thresh, clean and grind their grain, bring home, feed and sell stock, all by means of that indispensable agent, steam. A homestead without a steam engine, in England, is almost as half finished as without a mistress, or a parish church without a parson. Of course there are still minor matters scarcely as yet brought within the field of its operations. But these are all bound to follow, and English farmers will soon grub up their roots, pump their water, warm their cattle in winter and cool them in summer as methodically as they now cut chaff or winnow wheat.

That steam cultivation will come into general use in every department of agriculture in England no one there now denies. At the last Farmers' Club meeting the question was fully discussed, and it was announced that Prince Albert had purchased one of the celebrated steam cultivators by Fowler & Smith, and it was agreed that once realize ploughing by steam, and drilling, draining, hoeing, and like work on a farm must follow "naturally."

At the London Farmers' Club, held May 2d, 1859, Mr. Mechi went fully into the subject. He has by horse plough and subsoiler broken up land very deep and proposes to break it up by steam plough a yard deep.

A Mr. Smith said that steam cultivation is an accomplished fact, and profitably so, therefore it is practically attained. Fowler & Smith have been practically proved superior to horse power in saving cost and in effect, and the Royal Agricultural Society of England has sealed it by an award and medal. Who shall say that we shall not have scarifiers and grubbers, by one hundred horse power, go down four, five or six feet? He had done best on a soil accidentally fourteen feet deep, by a filling in.

Halkett's Guideway Steam Cultivator is pronounced in England noble, simple and unerring. Boydell's Traction Engine is now drawing coals in Manchester at a penny a ton a mile on the highway.

Collinson Hall's Portable Engine, of 320 lbs. pressure, burns in a day's work of ten hours 8s. 4d. worth of coals.

Lord Willoughby de' Eresby's "California," a portable engine, on exhibition in 1851 at the Crystal Palace, London, is pronounced one of the most perfect and powerful engines ever seen.

John C. Morton, another member of the Club compares horse and steam power, and is convinced that steam is twice as cheap as horse. A farm of 200 acres, according to Mr. Morton, can fully employ a steam engine. Small farms can agree to hire or can keep one. Steam will do all the work in much less time than horses. At the Middlesex Cattle Show, steam cut in 3 minutes hay into chaff, 128 lbs.; roots for sheep, 314 lbs.; for bullocks, 620 lbs.; roots pulped, 490 lbs.; thick oil cake broken, 165 lbs.; corn, (wheat) winnowed in 13 minutes, 791 sheaves; barley threshed and dressed in 5 minutes 100 sheaves.

Fowler's steam machine ploughed 6 by 9 (a three-horse work), an acre in an hour, at the cost of 9s. 2d. per acre.

On an English railway they carry 240 tons of coal a mile in three minutes for 2d.

The manufacturers of England employ 150,000 engines equal to 3,000,000 horses.

Halkett's plan of steam cultivation is parallel rails over the field; deeper cultivation between them and no hardening soil by carts and waggons. These rails are so many straight line guides for planting. I can till, hoe, etc., 150 or 200 acres in 24 hours, and not a foot is set upon the soil. The whole can be drilled in 24 hours ready for seeding. I spread liquid manure rapidly; I water it for a shilling an acre; I mow grass for less than a shilling an acre.

The cost of English steam ploughs is as follows:—Smith's, £500; ploughs 7 acres per day. Fowler's, £270; ploughs 8 acres per day. Smith's costs per day at work, £2 3s. 4d. Fowler's costs per day at work, £2 1s. 7d.

These are some of the facts given at a late meeting of London Farmer's Club, and we have no doubt will much interest our Western readers. The Great West is yet to be the field for steam cultivation, and its triumphs elsewhere must be eclipsed by those which it will realize upon the prairies of Illinois and other Western States.—*Chicago Democrat.*

PROVINCIAL EXHIBITION.—At a recent meeting of the Local Committee, at Kingston, Dr. Litchfield, Corresponding Secretary, read a letter from Mons. J. Perrault, Secretary and Treasurer of the Board of Agriculture of Lower Canada, stating that he believed the cultivators and manufacturers of the Lower Province would profit largely by the excellent occasion of imitating the progress of agriculture and of industrial pursuits of the Upper Province, and by the opportunity of competing their own produce and manufactures with those of the sister Province at the Kingston show. Mr. Perrault said he rejoiced that the law opened the exhibition to all Canada, and added that the Board of Agriculture of the Lower Province desired, above all things, to encourage agricultural and industrial progress, by contributing to the union and reciprocity of feeling which should exist among the producing classes in both sections of the country. As Lower Canada will have no exhibition in 1869, the exhibitors would gladly avail themselves of the opportunity afforded them of attending the show in the midland district. The Board of Lower Canada would embrace every opportunity to reciprocate with Upper Canada the advantages of the Provincial exhibitions.

THE MIDGE, WEEVILL OR WHEAT FLY—ITS ONLY CURE.—This dreaded insect is now in full operation in those places infested with it. So long as clover is sown with wheat, in infested districts, the insect will increase until it renders the cultivation of wheat useless. There is but one way to get rid of it, viz—it must be destroyed whilst it remains in its worm and pupa state. From the time the insect becomes a worm, until the following Spring it emerges as a fly, it is without the power of locomotion.—It comes out as a fly in May and June, flies to the nearest field of wheat, lays its eggs and dies. The worms hatch from the eggs and destroy the grain, and remain with the wheat in the barn, or on the surface of the stubble field, during the Fall and Winter. The Fall and Winter is the time to destroy them. Burn all the seeds and refuse from the fanning mill; plough the wheat stubble field deeply with the skim coulter plough, and thus bury all the insects which remain on the field. Cultivate the fallow thus made with the harrow and drag on the surface only during the following season; do not again plough it, and you will find that most, if not all, of the insects will be destroyed. It has been proved, without doubt, that when deeply buried the insect never again comes to the surface without assistance. If, however, the land is reploughed before the fall of the following season, the insect is again brought to the surface, and again goes off as a fly to the nearest field of wheat.—*Communicated, Colonist, July 17.*

THE CORN GRUB.—The corn crop has several formidable enemies to contend with, and among them is the grub, which sometimes literally destroys whole fields, and frequently damages the crop seriously. One of the best and most judicious remedies—perhaps the best ever suggested—is the application of salt as soon as the plant makes its appearance above ground, prepared and used in this way: Take one part common salt and three parts plaster of gypsum, and apply about a table spoonful around each hill, the mixture should not come in contact with the plants, as it may destroy them. This method has been tried over and over again by some of the best farmers of Pennsylvania, Delaware and Jersey, and when properly applied, has never failed to be perfectly successful. We hope our farmers who have reason to fear the depredations of the grub this season, will try the mixture, leaving a few alternate rows of corn without, in order to see the result.—*Exchange.*

PREMIUMS FOR FIELD CROPS.—The Judges on Field crops entered in competition under the township of Gloucester Agricultural Society, have awarded premiums for Fall wheat, oats, peas, barley, Indian corn, potatoes, carrots, parsnips, Swede turnips, common turnips, mangel wurzel, all examined on the ground, the quantity of each lot in competition being from quarter of an acre, in some of the roots, to two acres in the grain crops. They conclude their report as follows:—

“In comparing this year's crops with those of several years past, in the section of the township through which we passed, we came to the following conclusions. Fall wheat a good average crop. Peas, oats, corn and potatoes, much below the average. Hay exceedingly short of a crop and inferior in quality. This deficiency we think is chiefly owing to the severe frost, drought and intense heat of the early part of the summer.—Although we must with regret admit that there is considerable room for improvement in the tillage, and particularly in the selection of pure unmixed seed, and keeping buds down—a subject which we would earnestly submit to your consideration, and other Directors of Agricultural Societies.”

GOOD ADVICE IN SELECTING SEED WHEAT.—But little wheat of any kind, winter or spring, has been raised in Maine this year, for the good reason that but very little was sown. The ravages of the midge heretofore, have discouraged the farmers, and instead of wheat they have sown barley, and fine crops of this last grain are now growing among us.

What little winter wheat was sown last fall, as a general thing, has done well, the berry being plump and bright. The spring wheat is also fine. Some fields have suffered on the margin, or outskirts, but the ravages are not so extensive as last year, perhaps because the fields for it to ravage are not so extensive. If, by a total suspension of the wheat culture for a year or two, we could starve the *critter* out, we should do well.

We find in some articles that have appeared in the *Michigan Farmer*, on wheat culture, good suggestion to those who wish to make selection of new seed to improve their fields, which we abridge for the benefit of those of our readers who may feel any interest in those matters.

One great cause of the failure of crops of wheat, says the writer, is the neglect in the selection of seed.

Known varieties of wheat may be improved by a constant and steady attention to the selection of seed intended to be sown. It is a system of improvement that can be practised by every one, if he will go at it systematically and carry it on some years.

The easiest process for the farmer, who feels that he would like to secure a better grain for seed than he has been in the habit of growing, is by *selection from the sheaf*.

In almost every sheaf in a field of wheat, there are numbers of heads that present all the characteristics of the variety almost in perfection; namely, the straw is short and yet of moderate length, the leaf is broad and long, the head is long, full in shape, and well filled out to the end of the spike; each of the little spikelets that contain the grain should be set upon the main stem regularly, that is to say, they should not be straggling, with vacancies between each; each of these should be sound, plump and healthy. No head should be selected that contains less than forty grains of wheat—all that contain more should be preferred. [We have seen heads in Maine that contained forty kernels, but not of late years.—Ed.]

By selecting heads from sheaves, before being threshed, with some of these characteristics, and sowing only such grain, a few years would bring about a revolution in the quantity and quality of the crop, and this at no great expense of either time or labor. At any rate, it is a kind of labor that would pay, and if followed up would be found profitable; but there is no use in taking hold of it for one season, and dropping it the next.

To do anything towards the improvement of crops or stock, requires a long persistent effort that must run through a series of years; without such effort, no man can do anything to ameliorate the growth of either vegetable or animal. The laws of their growth forbid.—*Maine Farmer*.

THE TURNIP PLANT—ITS ENEMIES.—We learn from the *Agricultural Review*, (Dublin,) that the turnip plants on the light soils in the vicinity of Retford have been severely and generally attacked by an innumerable army of black caterpillars, which devour whole fields of the young plants in a few days. Their ravages are beyond credence, and all attempts to destroy them seem to be unavailing. Some of our farmers are employing children in picking them off, but it is a most interminable and apparently useless task. Others are dragging clothes over the lands to knock them off, but what are knocked off during the day find their way back during the following night. Some are passing a roller over the rows, but we have not heard with what success. We fear, however, the result will be serious to the crop, and the district has not suffered so severe a visitation since the year 1851.

FLOWERING OF POTATOES.—Dr. Manby, an eminent English agriculturist, and the author of a Prize Essay on the cultivation of Early Potatoes, says in that essay, which has recently been published, that "a flower to an early potato is considered a sign of deterioration, the first symptom of *growing out*, it being contended that all the strength of the plant should be thrown into perfecting the tuber, and not into the opposite extreme." He would therefore eradicate them as soon as they appear, and save seed from plants which have shown no indication of flowering. Experiments have shown that potato plants beginning to show a tendency to flower, perfect their tubers less early and perfectly than before that tendency was developed.

CARE OF SHEEP IN SUMMER.—Some flocks of sheep look as if their owners were possessed of the notion that the only care required by these animals in summer was to relieve them of their fleeces, and then leave them to shift for themselves. But such is not the case—such is not the management of those who make sheep keeping a profitable part of their farming.

If sheep have been well wintered—if they go to a “good bite of grass” in May, in good store condition, their summer care will be a simple affair. Nothing more will be requisite than to keep them in fair pasturage, with an occasional supply of salt, and the attentive eye of the owner frequently upon them, to see that all is right. It is often well to keep the ewes with lambs by themselves during the summer, that they may have better pasturage and a good supply of milk be furnished for their young. The wethers and other sheep selected, when shearing, for sale during the summer, should also be placed in good feed by themselves; not only to have them in good marketable condition, but that there may be no temptation to allow buyers to select from the whole flock—the farmer should do his own selecting if he would keep up or improve the character of his flock. Yearling and dry ewes will do better on shorter grass than either class above mentioned. If the flock is small and the feed good, all the store sheep can be kept together with good result.

The importance of keeping sheep always in good condition, can scarcely be over estimated. “Spring poor” flocks require especial good care during summer to gain flesh to any extent, and those allowed to become thin in summer, scarcely ever enter their winter yards fit to endure the rigors and privations of that season. On the contrary, if at any time it is thought profitable to fatten well kept sheep, it can readily be done, and at one-half the expense required to bring a poor animal into equal condition. The yield of wool is considerably greater, the increase of the flock is of a much better character, and the value of the sheep in market is profitably increased by any reasonable amount of care in keeping them in good order.

A change of pastures is undoubtedly beneficial to all kinds of stock—and to none more than sheep. We have formerly remarked upon this question, and further experience convinces us that it is desirable to change the pastures of cows and sheep at least semi-monthly during the summer.—*Country Gentleman.*

Editorial Notices, &c.

CORRECTION.—The prize offered in the Prize List of the Provincial Exhibition, Class 44, Sec. 19, for portable steam engine, should be \$30 instead of \$3, as printed.

UNIVERSITY COLLEGE, TORONTO.—It will be seen by advertisement that the lectures in the Agricultural Department, will commence on the 1st of November. Occasional students can enter this and other classes, without being subjected to an examination.—As the fees in this institution are merely nominal, the only expenses worth mentioning to which students are subjected, are those for board and lodging.

The Michigan State Fair will be held on the 4th, 5th and 6th days of October next, on the same ground on which last year's exhibition was held, the expense of erecting new buildings being thus avoided. The prize list has been completely re-arranged and remodelled, and the great success of last year's show leads the directors to hope for at least equal results this year.

UNITED STATES' FAIR.—Active preparations are being made at Chicago, to have the grounds in readiness by the 12th of September. Col. Capron has charge of the erections.

HIGH PRIZES.—In a list of premiums to be awarded at the Fair to be held in St. Louis, Mo., from September 26 to October 1, we notice the following: \$1,000 for the best thorough bred bull of any kind; \$1,000 for the best roadster stallion in harness; \$1,000 for the best thorough bred stallion; \$300 for the best steam plow; and four prizes of \$125 each, and two of \$100 each, for the largest and best crop of wheat of named varieties.