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THE ONTARIO FARMER,

A MONTHLY JOURNAL OF

Agriculture, Horticulture, Country Life, Emigration, and the Mechanic Arts.

VOL. III.

HAMILTON, AUG., 1871.

No. 8.

The Farm.

HINTS FOR THE MONTH.

August work on the farm may be summed up in two words: "Harvest continued." By the beginning of this month, indeed, where the weather has been favourable, and farmers have been duly prompt and pushing, the greater portion of the hay and grain crops will have been secured. Oats will have yet to be cut, and this ought to be done before the grain ripens, in order to improve the quality of the straw and prevent the grain from shelling out. When harvest operations are fairly concluded, the tools should be well housed and taken care of, especially the reaping machines, which are costly, and from their construction must suffer greatly from exposure to wind and weather. It is painful to observe what carelessness and neglect are practised in this direction. Farmers who have had a hard struggle to pay for expensive implements, bestow no thought or attention upon them, leaving them perhaps in the open field, or giving them some partial shelter which is little better than none. This ought not to be. Tools and implements well housed not only last longer, but do better and easier work while they last than those which are subjected to neglect. Root crops will now be so far advanced as to need no more hoeing. Even yet vacant places in the turnip field may be filled by sowing white turneps. They will of course attain no great size, but half a turnip, like half a loaf, is better than none. Those who have not lost faith in fall wheat will improve every opportunity for preparing land intended for that crop. A narrow field along the edge of the woods is the best locality that can be chosen, as there the wheat is less likely to be winter-killed. It is a thousand pities every farm in Canada has not its belts and strips of trees to afford a degree of protection. The country is too bare. Draught in summer, and alterations of freezing and thawing in winter, are the fruits of wholesale clearance. The best seed wheat should be secured, and care taken to get it thoroughly clean. Why should the land be stocked with chess and foul weeds, when a little care and precaution will

prevent it? Now is the time that most weeds ripen and scatter their seeds; therefore to destroy them at this period will prevent future increase. It must be destruction, however. To cut them up, is often but a half-way measure, from their being left to lie and perfect their seeds upon the ground. To rake heaps of them and burn them is an excellent plan. This month is a good time, if there is leisure for it, to underdrain low-lying lands to dig swamp much, and expose it to dry, or to perform any operations upon parts of the farm that are wet in the spring and fall. During this month the sheep gad-fly, which cause the trouble in flocks known as grub in the head, hovers about the heads of its victims in order to deposit its eggs about the nostrils. Smearing the sheep's noses with tar, and giving them access to ploughed ground, are recommended as preventives. The garden and orchard will now begin to yield their increase, and the pleasant task of gathering and storing the fruits of the season will commence. Insect troubles may be checked in their depredations by keeping a sharp look-out for them, especially the borer, which lays its eggs about this time. The bug quickly hatches and makes its way into the tree. A wire probe is the thing with which to hunt and destroy this pest. A coating of soft soap at the base of the tree is said to be a safeguard against its depredations. Except in localities where buckwheat abounds, honey-gathering will be pretty much over this month. There is yet opportunity to do something in the way of Italianizing, equalizing, and regulating stocks; operations which must be attended to, if at all, during the summer time. Bees cannot be handled to much advantage when chilly weather comes on, and after the working season is over it is well to disturb them as little as possible.

Stock of all kinds, let it be remembered, will need to be well looked after at this season of scanty pastures and falling springs. It is always poor economy to allow animals to fall off in condition. Whether it be dairy stock yielding milk, young creatures, the profit of which is in their growth, animals intended for winter feeding, or beasts of burden whose business it is to labour, pays to keep them in full flesh and in good heart.

PROVINCIAL ASSOCIATION—TRIAL OF IMPLEMENTS.

(From the Globe.)

FIRST DAY.

The competitive trial of agricultural implements began on Wednesday, July 19th, on the farms of Messrs. Hiram and Horace Capron, in the vicinity of Paris. The last trial of a similar nature in this Province was held in 1864, in the neighborhood of Hamilton. A comparison of the two exhibitions shows very gratifying progress in this class of manufactures within Ontario. Then the Province was, to a considerable extent, dependent upon the skill and enterprise of the neighboring States. Now very few agricultural machines are imported. Nor is this manufacture by any means confined to our cities. Large manufacturing establishments flourish in most of the towns and villages throughout the Province, which supply to the farmers of this country implements and machinery inferior to none in the world. For the development of this important branch of business is not more remarkable than the improvement in the machines themselves. The ingenuity of mankind, ever active, has been especially so in the service of the husbandman. Experience suggests improvements, and year by year changes have been made in order to adapt the machines more perfectly to the purposes for which they were intended. The exceedingly keen competition throughout the province in this business has had the very best results. Manufacturers are ever on the alert for improvements, and the result was shown in the superior class of machines that entered the lists at Paris.

RULES AND REGULATIONS.

As on former similar occasions the trial was under the auspices of the Agricultural and Arts Association of Ontario. The Directors of that body issued a circular some time ago announcing the trial and laying down the rules and regulations under which it would be held. These were, as far as practicable, the same as those relating to the Provincial Exhibition. In all the departments, competition was open to exhibitors from any part of the world without reservation. An entry fee of one dollar was charged to each competitor, and it was provided that entries for the trial would constitute membership of the Association for the current year. All entries were made in the names of the producers or manufacturers only. It was announced that the decision of the judges would be based on the combination of quality, style and price, and the adaptation of the article to the purpose for which it was intended. The usual arrangements were made with the railway companies for return tickets for passengers and freight at reduced rates. One provision in the regulations requires all the successful competitors to exhibit the articles for which they were awarded prizes, at the trial at the Provincial Exhibition in September, and their premiums will not be paid them till then.

THE LOCALITY.

A more suitable locality could not perhaps be found in the Province; conveniently reached by rail, and the centre of a capital agricultural as well as manufacturing country. Paris affords excellent advantages for a trial which is intended for the

benefit of farmers and machine-makers alike. Aside from these practical advantages are others, acceptable to all, but particularly pleasing to sight-seers. The scenery, though not grand, is picturesque, and, with a slight exercise of the imagination, might even in some places be called romantic. Nestling down under two lofty banks, between which, in meandering form, flows the Grand River. Paris, like many another pretty Canadian town, is a place where many a one will turn aside to see with pleasure. On the hills above the town a splendid prospect meets the view—hill and valley in endless diversity, well-tilled farms, elegant farm-houses, orchards laden with fruit, and golden fields of grain just ready for the sickle—if one may be allowed the anachronism. The farms on which the trial took place are situated between the railway station and the town, and extended from the line of the Grand Trunk pretty well down towards the town. The situation is somewhat elevated, and commands a view of the country for miles around. So much for the locality and the region round about.

Tuesday evening's train brought a number of visitors and exhibitors from a distance, as well as implements and machines in great variety. The majority, however, came in Tuesday morning. Before nine o'clock the road which runs between the farms of Mr. Hiram Capron and Mr. Horace Capron began to fill up, and by ten o'clock most of the machines intended for competition were on the ground and ready for work. Most of the machine-makers in the province from Whitby and Newcastle west were represented. Of machines for haymaking and harvesting there were 83; 29 for preparing products for use; and 47 implements for tilling the ground. There was considerable delay in getting started, much to the annoyance of the farmers, most of whom had left their own harvest fields to witness the trial. None of the Directors of the Provincial Association were on hand, and until some of them arrived to take control of affairs, of course very little could be done. However, Mr. Dickson, the secretary of the North Brant Agricultural Society, and other officers of that body, did what they could in the way of preparation, and by half-past ten Mr. Thompson, secretary of the Provincial Association, Mr. Rykert, and other directors, arrived and at once set to work, giving out cards to the competitors and arranging the work of the Judges. Mr. Graham, treasurer of the Association, also arrived shortly after. Notwithstanding the busy season, there was a large attendance of farmers from the neighboring counties. The interest taken in the exhibition and the opportunity it afforded of showing the strength of the country in the manufacture of agricultural machinery also attracted a number of people from various parts of the Province. Among the distinguished visitors present during the day were Mr. Baxter, son of the eminent member for Dumfries, Secretary-treasurer in the Imperial Government, and Mr. Dunlop, son of the late Mr. Murray Dunlop, M. P. for Greenock, who are paying a visit to this country. The Hon. George Brown, Prof. Buckland, Mr. Rymal, M. P., and Mr. Stirton, M. P., were also on the grounds.

THE TRIAL.

Owing to the delay in making the preliminary arrangements it was one o'clock before the actual trial of any of the machines commenced. The first called out were the single mowers: eight of these,

the only ones out of 20 entries that were on the ground, were ranged in a line along one side of the field at 30 feet apart, and were required to cut a strip of that width and 260 yards long, the distance to the opposite side of the field. The crop was of mixed timothy and clover, very light, and as was to be expected at this late season for haying, over-ripe, but otherwise in good order, affording indeed but an inadequate test of the efficiency of any mower. The ground was somewhat hilly and rolling, but not rough. The following were the competitors: Messrs. Brown and Patterson of Whitby, with a Cayuga Chief Mower; Mr. Massey, of Newcastle, with a Wood's Patent; Noxon Bros., of Ingersoll, with an Ohio Buckeye, Mr. J. Watson, of Ayr, with a small compact machine, altogether of iron, which he names the Humming Bird, and another more powerful, which he calls the Clipper; Maxwell and Whitelaw, with a light and very compact mower, called the Sprague Mower; Bell & Son, of St. George, with a Buckeye; and L. D. Sawyer, of Hamilton, with a Wood's patent. These eight machines started pretty well together at a signal, and presented an animated spectacle as they cut their way across the field, levelling the grass in excellent style, as might be expected. There was considerable competition in speed as well as in quality of work, though the former is a matter more, perhaps, dependent on the horse and the driver, than on the machine, except so far as lightness of draft and facility of working may effect the speed of the pace. On the present occasion, the first machine to complete the allotted task was Mr. Noxon's, which cut its strip of about half an acre in eighteen minutes; the rest were not much behind, and this part of the trial was over in about half an hour. The judges then submitted each machine separately to the test of a dynamometer, driving it for that purpose once across the field, and cutting a single swathe, one of the judges himself acting as driver, carefully noting the working of the machine, as well as the instrument for measuring the draft. The test gave the following results:—The average draft of the Brown & Patterson, single mower was 180 lbs., the width of cut 4 feet; Massey's draft 190 lbs., width of cut 4 feet and 2 inches; Noxon's draft 193½ lbs., cut 4 feet; Watson's draft of Humming Bird 165 lbs., cut 4 feet; Watson's draft of Clipper 175 lbs., cut 4 feet 6 inches; Maxwell and Whitelaw, draft 145 lbs., cut 4 feet; Sawyer, draft 233½, cut 3 feet 10 inches; Bell and Son, draft 200, width of cut 4 feet 2 inches. In the case of the three highest figures above given something may have been due to the change of ground, as the machines were in different parts of the field and one portion of their course was up a pretty steep incline, which showed a perceptible influence in increasing the draft. This careful testing of each individual machine necessarily occupied some time, and it was nearly six o'clock before the trial was over. The judges who acted in this class of implements were Messrs. A. E. Goodfellow, of Guelph, James Anderson, Rednersville, and W. Bell, Rodgersville. The testing the draft of the single mowers was suspended for a time to give the combined machines, which to the number of 14, were placed in a line beyond them, an opportunity of cutting a similar strip of the field. The competitors in this section were:—E. Eastwood, of Ingersoll, with two machines, differing chiefly in the rake to which they were adapted; Noxon Brothers, also with two machines, one a Buckeye, the other a Standard; J. H. Grant, of Grimsby, with an Ohio

Buckeye; Massey, with a Hubbard Mower; D. L. Sawyer with a Ball's Ohio; J. Bingham, of Burford, with two machines, both Ohio Buckeye, but one with a Johnston self-rake attached, and the other with the Dodge rake; Harris & Son with a Kirby mower; J. Forsyth, of Hamilton, with an Ohio Improved; J. Watson with his Clipper; and Oswald and Patterson, of Woodstock, with an Ohio Buckeye. These machines started at three o'clock, and like the single mowers did good work, cutting the grass low, clear, and leaving it spread on the ground. There was little or no clogging with any of the machines, though, indeed, the lightness of the crop standing well up as it did, was but little apt to give rise to this trouble. These combined machines like the single machines, were subjected after having cut their allotted strip, to the test of the dynamometer, three extra judges having been appointed for the purpose to expedite the trial. The gentlemen who acted in this capacity were Messrs. Rymal, Stirton and Dawson. The drafts of the respective implements were as follows: A. Harris & Son, width of cut 4 feet 8 inches, draft 250 lbs., Oswald & Patterson, cut 4 feet three inches, draft 275 lbs; Bingham, both machines cut 4 feet 3 inches, draft 250 lbs.; Grant, cut 4 feet 3 inches, draft 240 lbs.; Noxon, Standard, cut 4 feet 6 inches, draft 230 lbs.; Noxon, Buckeye, cut 4 feet 3 inches, draft 220 lbs.; Watson, Clipper, cut 4 feet 4½ inches, draft 225 lbs.; L. D. Sawyer, cut 4 feet 8 inches, draft 280 lbs.; Forsyth, Buckeye, cut 4 feet 3 inches, draft 225 lbs.; Forsyth, Ohio, cut 4 feet 3 inches, draft 240 lbs.; Massey, Hubbard, cut 4 feet 6 inches, draft 275 lbs.; Eastwood, Buckeye, cut 4 feet 3 inches, draft 250 lbs.; Eastwood, Ohio, cut 4 feet 3 inches, draft 250 lbs.

It was quite a late hour and growing dark before this part of the trial was completed.

PLOUGHING.

Towards the latter part of the afternoon a commencement was made with the trial of ploughs.—The ground selected for this purpose was a cleared portion of the same field in which the mowers had been competing. Strips of land, 12 feet wide and about 30 rods in length, were staked out for the separate implements to plough each a land. Only a few had been set to work when the coming on of evening put a stop to the proceedings.

The ground was very unfavorable for the purpose, being not only rough, hilly, hard and dry, but very stony. It was almost impossible, therefore, to exhibit really good work. The following competitors started with their ploughs:—Watson, with a plough with a wrought-iron beam, steel mould-board and cast landside; Morley, of Thorold, with his well-known iron plough, so well adapted in ordinary cases for sod; Chisholm, of Paris, with an iron plough; Wilkinson, of Gormley, and Gray, of Edinburgh, Scotland, with an iron plough. This implement was seen with great disadvantage on account of the nature of the ground, besides being started without being properly adjusted. The latter error was remedied after a few furrows had been ploughed, and the work was much improved by the alteration. The plough was drawn by three splendid and powerful grey horses who, under the adverse circumstances, scarcely worked with the ease which better ground would have allowed.—Notwithstanding these drawbacks, the performance of the double plough elicited much admiration.

The trial will be resumed to-morrow. Besides the three greys already mentioned a number of the teams on the ground were very splendid animals. The team which drew Mr. Harris' combined mower, and was selected to draw all the implements of the same class in the trial of drafts, was especially noticeable and was a truly noble-looking pair of well-matched and powerful looking animals.

After the day's work a dinner was given to the judges and other visitors, by the officers of the Brant Agricultural Society, at Sinclair's Gore Hotel.

SECOND DAY.

The trial of Agricultural Implements was resumed next day under the favorable influence of splendid weather. The day was all that could be wished, fine, without being sultry, and indeed just the temperature to suit both visitors and competitors. The crowd was not so great as on the previous day, for many who had come from a distance had been compelled to return home to attend to harvest work or other pressing business. To those who were able to remain this was an advantage, as there was less crowding about the machines at work, and less running over the fields. Many, however, were no doubt disappointed in being obliged to forego the principal attraction of the competition, namely, the testing of reapers, which the threatening state of the weather on the previous day and the want of preparation had postponed till the second day of the trial. Even then it was not till an advanced hour of the morning that this part of the competition was fairly under weigh.

TRIAL OF HORSE RAKES.

The first part of the day's proceedings was the trial of horse rakes. In this class the number of entries as usual exceeded the actual number of competitors on the field. Four machines were started to work. These were all sulky rakes with steel teeth, and were exhibited respectively by Massey of Newcastle, Watson, of Ayr, Davis, of Guelph, and J. Soutar, of Chatham. All the machines made clean work, and were managed by the driver with ease; but the lightness of the crop scarcely admitted of a fair test. Indeed, in the case of these steel-teeth implements, the slight resistance of the hay to be gathered caused the teeth to press somewhat too much on the ground and bring up roots and earth to some extent. This could have been remedied had the lightness of the crop been foreseen and the pressure adjusted, as the machine of Soutar, for instance, allows, by using lighter springs and raising the teeth higher. This exhibitor also labored under the disadvantage of employing a driver unaccustomed to his machine. The result of the competition, as regards the award of prizes, will be seen in the premium list appended to this report.

■ PLOUGHS.

Early in the forenoon the ploughs that were on the ground and which had on the previous day been at work on their strips of land—only one of which, however, was completed—were submitted to the test of the dynamometer, with the following results:—Gray's champion iron single-furrow plough a strong and excellent implement manufactured in Scotland and exhibited by the importer and agent, Mr. Rennie, of Toronto, showed an average draft of 500 lbs. The weight of the plough itself is 180 lbs.

The strip of land selected for the trial being on a hill-side gave an opportunity of observing the effect of an acclivity, and it was noticeable how little draft was increased in ascending the hill—not more indeed on an average than 25 lbs. The next plough tested was that manufactured by Eyer & Bros., Richmond Hill, an implement with iron beam and wood shafts. The weight of this plough is 140 lbs and the draft was 475 lbs. The plough of George Wilkinson, of Gormley, a plough similar in construction to the last, and weighing 140 lbs, was next tested, and showed a draft of 450 lbs. The next implement brought on the ground was another of Gray's iron ploughs but of a lighter construction weighing 150 lbs. This was also exhibited by Mr. Rennie. The draft was 460 lbs. Mr. Wilkinson showed a second plough entirely of iron, weighing 175 lbs, the draft of which was 475 lbs.

J. Morley, of Thorold, showed his well-known iron plough. Its weight is 130 lbs and the draft 450 lbs.

James Chisholm, of Paris, completed the list of actual competitors on this occasion. His is also an iron plough—weight, 175 lbs; draft, 450.

The judges for this class of implements were—A. McKellar, M. P. P.; Mr George Bell, of Tucker-smith, and Mr. Robson, of Falkirk. They expressed themselves well pleased with the quality of the work done by all the ploughs, under disadvantageous circumstances, and found it a very difficult matter to award the prizes; and it was with much reluctance that they did not assign a premium to the excellent implement exhibited by Mr. Wilkinson which, however, they considered well entitled to high commendation. The double furrow plough was not submitted to the test of the dynamometer on account of the very stony nature of the ground.

CULTIVATORS.

The same judges attended a test of cultivators on some fallow ground at a distance from all the other farm operations going on at the trial, and therefore but little noticed. The exhibitors were, J. Morgan, of Markham; B. Bell & Son, St. George; Thomas Clarke, Darlington; C. Thair, Guelph; J. Bora, Dundas. All were good implements, and it was a very easy matter to decide upon their merits. That of J. Morgan, not successful at the present trial, has carried off many prizes, and is certainly a thoroughly good machine, simple in construction and easily worked.

HARROWS.

The trial of harrows, like that of cultivators and ploughs, was only on a limited scale. The implements were all iron section harrows, very similar in construction and excellence of work. The exhibitors were Eyer & Bros.; J. Campbell, Newtonville; Alex. Robb, Indiana; R. Lean, Stratford.

TRIAL OF REAPERS.

By far the largest crowd of visitors congregated in and around the wheat fields on the opposite side of the road, where the great attraction of the day—the trial of reapers, was going on. The grain was in excellent order, not heavy, but very fair in quality on the ground, of moderate length of straw, well beaded, and for the most part standing well up. In one or two places only was it laid; and this circumstance afforded an excellent opportunity of testing the quality of the machines under this

frequent disadvantage. The single mowers were used in one field by one set of judges, and the trial of the combined machine under another set of judges was going on at the same time in the field adjoining. The machines were first started round the field, not all at once, but consecutively. Afterwards each machine was driven by one of the judges over the same portion of the field, with the dynamometer attached, subjecting each to the test as nearly as possible under exactly the same circumstances. The gentlemen who acted in the onerous capacity of judges deserve to have it mentioned that they discharged their very difficult task with singular care, patience and impartiality. The greater part of the day was occupied in this important investigation. The machines were of excellent manufacture and elicited general admiration for the work they performed.

SINGLE REAPERS.

Six of these competed, though many more were entered. The name of the competitors will be mentioned in giving the results of the dynamometer test. The great curiosity in this class was the Marsh Harvester, which was followed by an immense crowd. It cut the grain well; but it was a question among the spectators whether they would not rather bind the sheaves on the ground than on the platform of the harvester. It seems pretty hard work for the two binders to manage all the grain, even in this not very heavy crop. The hurry with which the binders must be performed tends, moreover, to leave the sheaves not in the best order. The machine is nevertheless a step in the right direction, and many farmers who have tried it speak highly of its merits. With regard to the other machines, we cannot here discuss their various merits and peculiarities. Most of them are well known, and a summary of the results of the dynamometer with each will be all that most readers will care for. With the single machines the drafts were as follows, the width of cut being also taken into account?

Exhibitor.	Reaper.	Cut. ft. in.	Draft. lbs.
A R Han's	Burdick	5 9	200
Brown & Patterson	Johnston	5 3	228½
L D Sawyer	Johnston	5 4	220
J Watson	Dropper	6 0	175
Massey	Woods	5 9	205
Paxton, Tate & Co.	Marsh Harvester	4 8	368½

COMBINED REAPERS.

These were tested in a similar manner, and were on the ground in great force, and came more nearly up to the actual number of entries than any other class of implements at the trial. The following is a summary of the drafts as shown by the dynamometer. As will be seen, there was a remarkable uniformity in this respect:—

Exhibitor.	Reaper.	Cut. ft. in.	Draft. lbs.
Massey	Hubbard	5 6	225
A Harris	Kirby	5 0	203
W Bingham	Dodge	5 6	241
W Bingham	Buckeye	6 0	225
J Forsyth	Johnston	5 0	233
J Forsyth	Johnston	5 0	225
L D Sawyer	Dodge	4 8	250
J Watson	Johnston	5 0	233

Noxon Bros	Ohio Buckeye	5 6	225
Noxon Bros	Standard	5 6	233
J H Grout	Dodge	5 0	250
J Eastwood	Ohio Buckeye	5 0	225
J Eastwood	Ohio Buckeye	5 0	225
Oswald & Patterson	Ohio Buckeye	5 0	236

THRESHING MACHINES.

There was not an extensive competition in this class of machines, four only being on the ground. Each was tested separately with a load of sheaves brought from the field where the reapers had just been at work. The machines shewn were Mr. Watson's agitator vibrating machine and his double-cylinder thresher; and those of Glasgow & MacPherson, of Clinton, and Maxwell & Whitelaw, of Paris. The work of each was thorough, delivering the grain very clean, and apparently threshed out completely. The first machine set to work was Mr. Watson's double cylinder, which threshed in excellent style 24 bushels in 30 minutes, without any effort in haste. Macpherson's next threshed 18 bushels in 17 minutes; Watson's agitator followed, and turned out 24 bushels in 18 minutes; and Maxwell and Whitelaw threshed 28 bushels in 18 minutes.

The grain was plump and even, turning out well in proportion to the straw, and the crop of the whole field will no doubt prove an excellent one—a promising index of the harvest in that neighborhood.

STRAW-CUTTERS.

After the trial of threshers, two horse-power straw-cutters, one exhibited by J. Watson, the other by Maxwell and Whitelaw, were set to work. The machines were very similar in construction, and did excellent work.

The trial of the pea-harvester did not take place, as there was no field of that crop in the vicinity ready; but the committee proposed to leave the trial of this much-needed implement with the County Agricultural Society, who will, it is hoped, agree for a competition shortly and report to the Agricultural and Art Association.

The following is the reward of prizes:—

PRIZE LIST.

SINGLE MOWERS.

- 1st Prize, Brown & Patterson, Whitby.
- 2nd " Bell & Son, St. George.
- 3rd " J Watson, Ayr.

SINGLE REAPERS.

- 1st Prize, Brown & Patterson, Whitby.
- 2nd " Harris & Son, Beamsville.
- 3rd " L D Sawyer, Hamilton.

COMBINED MOWERS.

- 1st Prize, J Forsyth, Dundas.
- 2nd " Noxon Brothers, Ingersoll.
- 3rd " A Harris & Son, Beamsville.

COMBINED REAPERS.

- 1st Prize, J Forsyth, Dundas.
- 2nd " Noxon Brothers, Ingersoll.
- 3rd " J H Grout, Grimsby.

HORSE HAY-MAKE.

- 1st Prize, J Davis, Guelph.
- 2nd " J Soutar, Chatham.
- 3rd " J Watson, Ayr.

PLOUGHS.

- 1st Prize, W Rennie (Gray's plough), Toronto.
 2nd " J Chisholm Paris.
 3rd " J & G Morley, Thorold.
 Highly commended,—Wilkinson, Gormley.

GANG PLOUGHS.

- 1st Prize, R Lean, Stratford.

HARROWS.

- 1st Prize, Alexander Robb, Indiana.
 2nd " John Campbell, Norwichville.
 3rd " R Lean, Stratford.

CULTIVATORS.

- 1st Prize, J Borer, Dundas.
 2nd " C Thair, Guelph.
 3rd " T Clark, Hampton.

THRASHING MACHINES.

- 1st Prize, J Watson, Ayr.
 2nd " Glasgow & Macpherson, Clinton.
 3rd " J Watson, Ayr.

STRAW CUTTERS.

- 1st Prize J Watson, Ayr.
 2nd " Maxwell & Whitelaw, Paris.

GRAIN CRUSHER.

- 1st Prize, Maxwell & Whitelaw, Paris.
 2nd " J Watson, Ayr.

The following are the names of the judges in the representative classes:—Single Mowers and Reapers—A E Goodfellow, Guelph; J Anderson, Rednersville; William Bell, Rogersville. Combined Reapers—George Hyde, Shakespear; W Patterson, North, Easthope; John Tennant, Paris. Combined Mowers—J Rymal, M. P.; David Stirton, M. P. P.; Alexander Dobson. Ploughs and Cultivators—A McKellar, M. P. P.; George Bell, Tuckersmith; W Robson, Falkirk. Threshing Machines—George Robson, Lobe; H Paxton, Port Perry; James Nellis, South Dumfries.

FARM GLEANINGS.

The different grains produce, when ripe, nearly the following qualities of meal, or household flour and bread per bushel, viz:

Wheat, if weighing 60 lbs.; flour, 48; bread, 64.
 Rye, if weighing... 54 lbs.; flour, 42; bread, 56.
 Barley, if weighing 48 lbs.; flour, 37½; bread, 50.
 Oats, if weighing... 40 lbs.; flour, 22½; bread, 30.

Some one alleging the ridiculous idea that oats sown in a pasture and fed down by animals during summer will change to rye during the following season, a correspondent of the *Journal of Chemistry* suggests to the experimenter to cut off the ears of a mule and see if it will not change him into a horse.

Mr. Livingston, of the Listowell flax mills, has given the following advice to flax growers: Those who have a large quantity and are short of help, should commence pulling the flax before it is fully ripe, that is when the first boles get brown and the leaves eight or ten inches from the top commence to drop off, so that the whole field can be pulled before it gets too ripe. In pulling flax the proper way is to make small bundles of from three to four inches around, and these should be neatly bound across the centre with a band of from three to five spears of flax, fastened by twisting the two ends together and tucking under. Be careful not to make

the band too large. After the field has been all pulled except a small patch in one corner, these small bundles may be put into sheaves of five or six each for convenience in loading. Use the small green patch in the corner for bands. Then put it into round shocks—not very large—with the sheaves standing straight up. Be sure to have it thoroughly dry before bringing it to the mill. This will require from ten to seventeen days from the time of pulling.

A USED-UP FIELD.

The other day I was looking at about the *hardest, dirtiest* piece of land I have seen for a long time; it was full of couch, shepherd's purse, red root, pig weed, Canada thistles, and as many others, as would almost exhaust a work on the botany of noxious weeds. A few days after, this piece was by the help of three horses, a jointer plough, and a heavy chain *reversed*, I was going to say ploughed down, but some of the weeds were ploughed down and good many more left up. The soil shown was the yellowest of yellow soils. The next day the owner of this noxious paradise was sowing and I was naturally curious to know what in the name of fortune he was putting in.

"What are you putting in there?" I said.

"Buckwheat," was the answer.

"That's good; I suppose you will plough it down green, next, to a summer fallow; that's about the best thing you can do."

"Plough it down, said he. "Do you thing I'm such a fool as to go and put in a crop, and never get no return for it? Not I. I'm agoing to let that go to a crop, and it will choke down all these plaguey weeds."

I mildly suggested again the advantage of ploughing his crop under green, and putting a clearing crop on it next year; but this drew down another violent attack.

"What! put my taters and roots on a dirty piece of land like this 'ere. A nice job I'd have a hoeing; I allow put my taters on the cleanest piece of land I've got, and then I don't have no trouble hoeing and horse-hoeing all through the summer.

I said that we generally put roots on dirty ground for the purpose of cleaning such; but as this remark only gave him doubts of the speaker's sanity. I dropped the discussion upon that point, and took up a new line.

"How did that land get so dirty?"

"Well, you see, this was a fine field of meadow once, and so I kept it down to Timothy as long as I could; but of late years the Timothy was getting pretty well played out, so I broke it up and put in oats. Well, that's many years ago; and then I put in oats again, 'cause you know oats always does best the second year on sod. Well, then I put in fall wheat on the oat stubbles. It looked very good in fall and spring, but when it come to thrashing, why it turned out bad. I find that's most the way with my grain; when we have a good growing spring it looks thick and high."

"What colours does it generally look?"

"Well, pretty paleish, but when it comes to thrashing, somehow it nevers turns out good; there aint no berry, and the heads aint well filled, and

there's always summat the matter. Well, I seeded that fall wheat down; and some of the clover I brushed up from the hay mow, and just run it over the fans, and considering that grass seeds were very high that year, I got the rest of mine pretty cheap, about 25 cents a bushel less than market price."

"How did the seed look?"

"Well, it didn't look just as fresh as I like; but then if we get a good season, and will; and if we don't, why the best aint no good. Well, I thought that seed took pretty well. I put it on about a bushel of Timothy and clover mixed to ten acres; but what with the good growing season, and the weeds getting such a start, and the grain didn't stand very thick, so the land got pretty well baked towards July; that clover wasn't worth cutting down next year, so I ploughed it right straight down in the spring, and planted corn. Well, hands were awful scarce, and I couldn't tend to that corn, so the weeds just got right ahead of me, and I guess that's what made the field so dirty."

The reader may well say is it possible that such men own farms? It is certainly the case, and there are many such men in the country, and farms treated like thus are left a legacy to the children. Is it any wonder that so many say "farming don't pay?"

If a field is "run out" it must be renovated. If we try to go on cropping, we lose all the labour put upon it. If we rest it, and crop it to plough down, we lose only the present use, and that loss will be repaid in a future year.

In Canada, clover is our great renovator. Never let grass stand more than three years: and more important, let the land be seeded again before the decayed vegetable matter of the last turned down sod can no longer be seen in the soil. Go without grain seed rather than run short of clover seed. As to the risk of clover taking, if the land be in good heart and clean, there will be no more chance of clover not taking than of fall wheat or spring grain failing to come up.—*Globe*.

C. E. W.

The Live Stock.

SUMMER MANAGEMENT OF DAIRY COWS.

In Herkimer county, New York one of the best dairy districts in the country, a dairy farmer who kept twenty-five cows for the manufacture of cheese making in one year nearly seven hundred pounds per cow, states his mode of feeding as follows:—

"When the ground is settled, and grass is grown so that cows can get their fill without too much toil, they are allowed to graze an hour, only, the first day; the second day a little longer, and so on till they get accustomed to the change of feed before they are allowed to have full range of pasture. Shifts of pasture is frequently made to keep feed fresh and give a good bite. About one acre per cow affords plenty of feed till the first of August. If enough land was turned to pasture to feed the cows through the season, it would get a start of them about this time, and be hard and dry the remainder of the season. To avoid turning on my meadows in the fall, I take one acre to every ten cows, plough and prepare it, the fore part of June, for sowing. I commence

sowing corn broadcast about half-an-acre at a time (for twenty-five cows) so that it may grow eighty or ninety days before it is cut and fed. I have found by experiment, that it then contains the most saccharine juice, and will produce the most milk. If the ground is strong, I sow two bushels per acre, more if the ground is not manured.

"The common yield is from fifteen to twenty tons of green food per acre. About the first of August, when heat and flies are 'so oppressive for cows to feed quietly in the daytime, I commence feeding them with what corn they will eat in the morning, daily, which is cut up with a grass-scythe, and drawn on a sled or wagon to the milk barn, and fed to them in the stalls, which is one hour's work for a man at each feeding. When thus plentifully fed, my cows have their "knitting work" on hand for the day, artificial shades, erected in such places as need manuring most, and are most airy, by setting posts and putting poles and bushes on top, the sides being left open. These shades may be made and removed annually, to enrich other portions of soil, if desired, at the small expense of one dollar for each ten cows. At evening, my cows are fed they only, because they can feed more quietly, with less rambling, and will give more milk by feeding most when the dew is on the grass.

"The capacity of cows for giving milk is varied much by habit. In fall, after the season of feeding is past, I feed four quarts of wheat bran or shorts, made into slops with whey, or a peck of roots to each cow, till milking season closes, about the first of December. When confined in stables and fed hay and milked, they are fed each one pailful of thin slop at morning before foddering, and also, at evening, to render their food more succulent, and they will not drink so much cold water when let out in the middle of the day. In cold weather cows are kept well attended to in warm stables. No foddering is done on the ground. Thus a supply of milk is kept up, and the cows get in good flesh, while their blood and bags are left in a healthy condition when dried off.

"This flesh they hold till milk season in spring, without other feed than good hay. They will not get fleshy bags, but come into milk at once. About the first of April they are carded daily, till they are turned to grass. Wheat bran in milk or whey, slops, or roots, are daily fed, as they are found best adapted to the nature of different cows, and most likely to establish a regular flow of milk till grass comes.—*American Stock Journal*.

HORSE DISEASE AT GODERICH.

At the request of the Commissioner of Agriculture, we proceeded on the 14th of July to Goderich, to examine as to the nature of the disease that had attacked a number of horses in that locality, and which has proved to be of an alarming and very fatal character.

So far the disease has been entirely confined to horses belonging to one establishment, and in all ten have been effected, five of whom have died. The disease is of unusual character, and appears to be a fever of a putrid nature.

The first noticeable symptom is a shivering and irregularity in the temperature of the body, speedily

followed by great prostration. The horse walks with an unsteady, reeling action; there is an increase of saliva from the mouth, and a difficulty in swallowing, and this distressing symptom rapidly increases. The horse appears very thirsty, but is unable to swallow. He will attempt to take in the water, and continue to do so for a long time, without swallowing a drop. The great difficulty in the process of deglutition is caused by the loss of power of the muscles which perform that function, and not the result of any obstruction in the throat. The temperature of the body changes quickly—at one time feeling quite warm, whilst shortly afterwards it is exceedingly cold, the coldness increasing as the disease advances. The mouth is hot and the eye dull-looking and watery; the mucous membrane of the nostrils is of a dull leaden color, the breathing in some cases increased, and there is slight congestion of the lungs; the secretion of urine is partially arrested, and the feces are very dark in color. Occasionally the patient will exhibit abdominal pains, which are aggravated by pressure on the abdominal walls. The weakness increases, and the horse lies down, and in most cases is unable to rise. There he lies with his head upon the ground, and every now and then moving his fore feet violently. The ears and legs become deathly cold, a frothy spume issues from the nostrils and mouth, the pulse is almost imperceptible at the jaw, and death occurs in from three to twenty hours after lying down.

We had an opportunity of making a *post mortem* examination, and the abnormal appearances presented were as follows: The stomach was perfectly empty, and its villous coat showed signs of slight inflammation. The small intestines were inflamed at different parts throughout their entire length, and near to the opening of the biliary and pancreatic ducts were several ulcerated patches. The same appearances also existed near to the termination of the ilium.

The large intestines contained a small quantity of feces, and in several parts showed signs of recent inflammatory action. The small colon in several parts presented ecchymosed spots.

Passing from the stomach to the throat, the inflammatory signs were still visible; the pharynx and surrounding parts were decidedly affected. The back of the nasal passages and larynx also, and the lungs, were slightly congested. The kidney appeared in a normal condition, but the mucous membrane of the bladder presented a number of ecchymosed spots.

The symptoms and *post mortem* appearances show the disease to be a putrid fever produced by a blood poison, and resulting from some local and debilitating influence of an exceedingly fatal character. The sanitary measures that have been adopted—embracing principally removal to fresh quarters, attention to ventilation and cleanliness—are likely to arrest the spread of the disease. Every attention has been given to the cases by Mr. Churchill, V. S., of Goderich.—Report of A. Smith, Esq., V. S.

MILK AND BUTTER OBTAINED PER COW,

In the *Agricultural Gazette* for Feb 8, 1868, a correspondent gives his experience of dairy farming. He says: "I consider 720 gallons (2,380 quarts) a fair return in a year for a cow, and this quantity of

milk, if the food do not contain more than 80 per cent, of moisture, will produce from 280 to 290 lbs. of butter." This same writer says that 26½ lbs. of milk, or about ten quarts, will make 1 lb. of butter. He also states that 5 gallons, or 20 quarts, was the highest daily yield of one cow. He was evidently a practical man, for he actually, kept 48 cows. He states that 47 cows actually gave throughout the year an average of 84 gallons daily, or 84 by 365—30,660 gallons, or 122,640 quarts in one year, from one cow; and if 10 quarts produced 1 lb. of butter, that would be 261 lbs. of butter yearly from each cow, as the average from 47 cows in one year. Again, in the *Farmer's Almanac* for 1868, I find it stated that a Holderness cow gave 29 quarts daily, yielding 1 lb. of butter from each 12 quarts. An Ayrshire cow gave 20 quarts daily, yielding 1 lb. of butter from 9½ quarts; an Alderney cow gave 19 quarts, yielding 1 lb. of butter from 12 quarts; and a Devon cow gave 17 quarts, yielding 1 lb. of butter from 9½ quarts. Of course these last are exceptional cases, but your own correspondent gave his actual experience of one year of a dairy of 47 cows. Now, I reckoned on 3,000 quarts, but I allowed 12 quarts to produce 1 lb. of butter, which gave 250 lbs. in a year, instead of 261. I do not think that I have greatly over-estimated the produce of a cow. Moreover, in Dorsetshire, it is by no means uncommon for a farmer to let out his dairy to a dairyman at £15 and even £18 per cow per annum, and that dairyman makes a profit out of it.—*Scottish Farmer*.

LIVE WEIGHT OF ANIMALS,

The most of meat obtained from a domestic animal sold by its live weight is quite variable. From the statistics derived from the public slaughter houses at Paris and Brussels, it appears that certain animals yield as much as seventy per cent. The mean weight of meat produced is calculated at fifty-eight per cent. It appears that the different products from oxen and sheep are as follows:—An ox of the live weight of 1,332 pounds, yields—meat, 771.4 pounds; skin, 110.2; grease, 87; blood, 55.1; feet and hoofs, 22; head, 11; tongue, 6.60; lungs and heart, 15.33; liver and spleen, 20.05; intestines, 66.15; loss and evaporation, 154.252, making the total of 1,332 pounds. The product from a sheep weighing 110.2 pounds is as follows:—Meat, 55.1 pounds; skin, 7.714; grease, 5.51; head, 4.408; feet and hoofs, 2.204; blood, 4.408; tongue, lungs, heart, liver and spleen, 4.408; intestines, 6.612; loss and evaporation, 19.736—making the total of 110.2 pounds.

ARE TWIN CALVES GOOD BREEDERS?

In reply to an enquiry whether twin calves of the same sex are apt to be barren, or whether barrenness is the result of the opposite sexes of the twins, the veterinary editor of the *North British Agriculturist* says:—"Calves born as twins, when of the same sex, breed as regularly and readily as those which come at a single birth, and often inherit the fecundity of their parents. When, however, a bull and heifer calf come together at one birth, the heifer, in a large proportion of cases, never breeds. Such animals, spoken of by old

Roman writers as Tauræ, are popularly known as free martins, and often assume masculine characters, are short and rough-like about the head, but seldom have any appearances connected with their generative organs sufficient to account for their not breeding. A few of these martin heifers do, however, breed, but probably not more than one out of every eight or ten. Bulls born along with heifers do not seem to labor under any disadvantage in procreating their species. It has been stated, but without sufficient evidence of fact, that the martin heifer is more likely to breed if she happens to be born before instead of after her twin brother. Twin lambs, although of different sexes, unlike the martin heifer, breed regularly. Amongst dogs, cats, and other animals where many young of both sexes are produced at a birth, there appears no imperfection in the procreative powers of the female offspring. The barrenness which so generally clings to the martin heifer has no counterpart in the human species."

EARLY CALVES.

A correspondent of the *Country Gentleman* says: "There is a good deal more depending on an early start than is generally supposed; yet every farmer who has raised stock must be aware of the advantage attached to a calf or a colt born in March or April, over one not coming into existence till June. The early young animals become strong against their first winter, and go through the cold spells without the check those that are younger or tenderer receive, and having gained a good clear start, they will never lose it, and it is the same with lambs, pigs and young poultry. How attentive to this matter should those be who possess highly bred stock, for if it is worth consideration with good common stock, it must be of immense importance to those who breed animals coming to be worth as many thousand as the average grades are hundreds. In England the winters are very much milder than in the Northern States; yet this is seriously studied with every variety of live stock, for the first winter is the most critical period of agricultural animals' existence, and when the young stock is brought to grass at about fourteen months old, plump and fat as they can be, perfectly healthy and growing, there is an end to all anxiety concerning them."

LIVE STOCK GLEANINGS.

An exchange praises an egg, "laid on our table by the Rev. Dr. Smith," which shows that Brother Smith is a layman as well as a minister.

Lord Holland, who lived in the time of William III., used to treat his horses to a weekly concert in the stables on the plea that music cheered their hearts and improved their tempers.

A writer in the *Working Farmer* exclaims: "Eggs forty cents per dozen! And the hens have no place open to them where they can lay an egg that will not be frozen in thirty minutes. The horse has a stall, the hog a pen, the dog a kennel—all of them as warm as they should be for their occupant's comfort; but there is no apartment about the premises for hens, whose eggs are worth over three cents apiece. Of all the living things about a

farm, there are none, if we except the rats, that have so little attention paid to them as the hens."

The *American Entomologist* says that species of spiders known as "Grand Daddy Long Legs" or "Grandfather Gray Beard" render man good service in devouring large numbers of plant lice, the larva of the Colorado potato bug, etc. They all have similar habits, being carnivorous, and seizing their prey very much as a cat seizes a mouse; but they differ from other spider in that they bodily devour their victims, instead of sucking out their juices.

The *Western Ruralist* [Louisville Ky.,] in advising the breeding of Cashmere goats, says (in substance):

1. Any good farm fence five feet high will keep them securely.
2. They will eat what most other stock refuse, and thrive upon it.
3. A shelter is better, but they will do well without.
4. They are not as disagreeable in any sense as the common goat.
5. They are precocious as well as sure breeders. They carry their young five months, and generally have kids by the time they reach the end of their first year.
6. They have from one to five in a litter, and it is always safe to calculate upon as many kids as there are mothers arriving at maturity.
8. Their wool is in great demand, at remunerative prices.

The Garden.

SUMMER MEETING OF THE FRUIT GROWERS' ASSOCIATION OF ONTARIO.

(Reported by the Secretary, D. W. Bendle, Esq.,)

The regular summer meeting was convened at Hamilton, on Tuesday, July 4th. There was only a moderate attendance at the morning session, in consequence of the rain, but fresh accessions were made to the number during the day, so that there was on the whole a very credible attendance and fine display of fruit.

It is very much to be regretted that there is not to be found in the city of Hamilton a suitable and convenient room for the holding of such a meeting. This is now the third time that the meeting of the Association has been disturbed by the necessity of adjourning from the room in which it was convened to some other place. These things are not only disagreeable, but they are a serious interruption and a waste of much valuable time. In truth there should be two rooms at the disposal of the society for the day, one in which the meeting for discussion is held, and the other in which the fruit is placed. By this arrangement the committees appointed to examine and report upon the fruits, can make their examinations without disturbing the deliberations of the meeting.

The meeting was called to order by the Vice-President, J. C. Rykert, Esq., M. P., and, after the transaction of some routine business, the discussion of the subjects for the day was commenced.

STRAWBERRIES.

The best six varieties of strawberries for the table was first considered. Mr. Rykert could not find six varieties that he would care to cultivate, after having tried several scores of sorts, but would name in the order in which they stood in his estimation—Triomphe de Gand, Charles Downing, Russell, and Early Scarlet. He had found the Charles Downing to withstand the drought remarkably well, and Russell to be of large size and very productive. The Agriculturist had proved with him to be a shy bearer, and not highly flavoured. He had tried the President Wilder, but it had wholly failed in productiveness, and he had been compelled to cast it out as quite unsuitable to his grounds. He had also tried the Marguerite, which was shown at the meeting in Galt, and astonished every one by its enormous size; but he had been woolly unable to raise anything more than berries of medium size. Mr. Rykert's soil is a very porous gravelly loam, and he cultivates all his strawberries in hills, keeping the runners pulled off. He thinks this the best and most convenient system of cultivation, yielding the largest returns, and obviating the necessity of planting new beds every two or three years.

Rev. Mr. Bell has succeeded only with the Wilson, which was hardy and very productive.

Mr. A. B. Bennet placed Lenig's White at the head of the list, as being the finest in flavor of them all, and with him it had been quite productive. After this he would name Cushing, Wilson, Green Prolific, Monroe, Scarlett, and Fillmore. Mr. Bennet's soil was wholly a made soil; it had been originally low and wet, but had filled up, and was very deep and rich. Dr. L. Cross named the Triomphe de Gand, Trollope's Victoria, Early Scarlet, Hooker, Hovey and Jucunda. His soil is a clayey loam. He cultivates the Triomphe and Jucunda in hills. The Wilson yields by far the largest crop. After taking two crops, he renews by planting new beds and destroying the old ones.

Mr. Mills could name only the Triomphe de Gand and Wilson.

Mr. Saunders named only three: Jucunda, Green Prolific and Downing.

Mr. Laing, of St. Thomas, named the Wilson and the Hooker. Had given Bishop's Canada a careful trial, but it was not productive, and he had dropped the cultivation of that sort altogether.

Mr. Linus Woolverton cultivated the Jucunda for table, which he esteemed as the best.

Mr. Arnold thought this question should be considered one of quality, that the six varieties having the finest flavor and most desirable to be placed on a gentleman's table should be named irrespective of the cost of production. Taking this view, he would name the Bishop's Canada as the most delicious strawberry he had ever grown, and placed it first on the list of the six best table sorts. It was indeed a very unproductive variety, but when they could be had they were of the very highest quality. Next to this he would place the Hooker, as a very high flavored berry, then the (American) President Wilder, Charles Downing, Jucunda and Trollope's Victoria.

Mr. Holton could not view the subject in the same light as Mr. Arnold. He thought cost of production should enter into the estimate of the quali-

ties of a variety even for amateur culture. He named Early Scarlett, Wilson, Triomphe de Gand, Macavoy's Superior, Jucunda, and Hovey.

Mr. Lewis named only the Wilson.

President Burnet was not able to give the names of six varieties that he would advise amateurs to plant for the table, for with him, and he thought with most planters, the productiveness of a variety had much to do with its desirableness. When he had a good berry he liked to have plenty of it; and as many amateurs, probably the most had only small gardens, it was an object with them to get as much as possible from a small piece of ground. He therefore named the following as in his view being the best: Wilson (the most productive of all, Triomphe de Gand, Jucunda, and Nicanor. This last named sort had endured the drought remarkably well.

The question of the six varieties of strawberries best suited for market purposes was then discussed.

Mr. Rykert named only one variety that he considered at all profitable as a market variety. This was the Wilson. He practised and strongly recommended the cultivation of the strawberry in hills and keeping the runners cut off, and believed it to be the most profitable method. His soil is a light dry gravelly loam.

Rev. Mr. Bell knew of no variety as suitable as the Wilson.

Mr. Bennet spoke of carrot tops as a most excellent winter covering for the strawberry plants, and which, being suffered to decay on the ground, enriched the soil and brought no seeds of grain or weeds. He could name no variety at all comparable to the Wilson for market.

Dr. Cross was fully of the opinion that in the present state of our markets, when berries sold at a rate not averaging higher than ten cents per quart, there was no profit in growing any other variety than the Wilson.

Mr. L. Woolverton had tried many kinds but none of them can equal the Wilson.

Mr. Arnold thought it was desirable to take as much advantage as possible of the higher prices which ruled in the opening of the strawberry season, and therefore would plant a few of Metcalf's Early, and a few of Nicanor, because these are earlier than the Wilson. Also the Nicanor stands dry weather very well, and in such seasons has on this account some advantages; but for bulk of crop he should rely on the Wilson. He plants in rows four feet apart, and the plants one foot apart in the row keeps clean with cultivator and hoe, and after taking two crops turn under with the plough.

The President had found a liberal dressing of leached ashes to be a very beneficial application.

At the opening of the afternoon session the President read a very interesting paper which had been sent in by Mr. James Dougall, of Windsor, on the subject of cheap glass structures for growing Exotic grapes, and their management. The paper was received with thanks, and referred to the Printing Committee.

RASPBERRIES.

Which are the best six varieties of raspberries for the table? was then announced as the subject for discussion.

Mr. Morse has tried the Red Antwerp and Fran-

conia with but poor success, and much preferred, some of the Black-caps.

Dr. Cross esteemed Brinckle's Orange very highly and gave that the preference. He thought favourably of the Philadelphia.

Mr. Woolverton named in connection with Brinckle's Orange the Red Antwerp.

Mr. Rykert could not recommend six sorts, but would plant in addition to Brinckle's Orange, Lum's Ever-bearing, which is an autumn bearing variety of the black-cap, and exceedingly productive, though the flavour was not high; and the Belle de Fontenay. Perhaps, to make out the six, some add the Franconia and Davison's Thornless.

Mr. Bell was much pleased with the Red Antwerp as a fruit, but the canes were very liable to be injured by the winter.

In discussing the subject of the best six varieties for market.

Mr. Woolverton named the Mammoth Cluster and Doolittle, both of black-caps would bear transportation so much better than the other sorts, that they would be found on that account the most valuable for market. He cultivates his raspberry plants in single stools, six feet apart each way.

Mr. Lister has recently planted Brinckle's Orange, Franconia, Philadelphia, Davison's Thornless, Doolittle, Mammoth Cluster and Golden Thornless, but could not yet speak of their respective merits.

Rev. Mr. Bell admired the black-cap varieties

CURRENTS.

Which are the best six varieties of currants?

Mr. Hyslop has cultivated with success the Red and White Dutch and White Grape. They were prolific, and he had been able to keep down the worms by the use of hellebore.

Mr. Booking prefers the old Red and White Dutch, especially for market. He has also grown the White Grape and the Cherry, and Black Naples. He had found the use of white hellebore of great benefit, and had succeeded in completely routing the currant worms.

Mr. Morse grew the Red and White Dutch, the Cherry Currant, and the Black Naples. He thought the Red and White Dutch the best for market, being hardy, productive, and meeting with a ready sale. For flavour he prefers the White Grape. The insect enemies he is able to keep in entire subjection by the use of white hellebore.

Mr. Bell prefers the White Grape for flavour, but for culinary purposes finds the Red Dutch to be the best. He found the Black Naples prolific and good.

Mr. Saunders is much pleased with the Cherry and White Grape sorts, to which he would add the Prince Albert on account of its ripening later, and so prolonging the currant season.

Mr. Woolverton named the Cherry, White Grape, and White Dutch.

Mr. Laing prefers the old Red and White Dutch; the Cherry variety, though larger, was not as good.

Mr. Rykert prefers the White Grape and the Cherry, though he did not esteem the fruit as one of any great value. He doubted whether the cultivation of this fruit for the market would ever be profitable.

Mr. H H Mills thought very highly of the currant, grew the White Grape, the Cherry, Red and White

Dutch. He could not get too much of this fruit for market. The Cherry currants brought 20 cents a quart, the Red Dutch only 10 cent; and he therefore thought that the Cherry currant was the best sort to grow for market, and that it was also profitable. He thought the fruit was conducive to health. In point of flavour he gave the preference to the White Grape.

Mr. Laing said that currant jellies were largely imported from Scotland, and that we might just as well supply this demand with a home product, if the proper attention were given to the matter.

The President spoke very approvingly of fresh currants, on the tea-table, with sugar and cream, as being both delicious and wholesome.

Mr. Bennet would as soon do without his strawberries, and had observed that buyers from Buffalo came to Brantford, and paid good prices for them. In some places, according to President Wilder, as much as thirteen hundred dollars had been taken from an acre of currants.

Mr. Morse had people come to his place for them, and give good prices. Mr. Brooking had not been able to supply the demand for them at Dundas, and Mr. Saunders remarked that at London they have always a ready sale; and Mr. Rowe, of Paris, had sold his crop while they were in blossom. He had found the Cherry variety to be very prolific. White hellebore was a perfect cure for the saw-fly or currant worm.

Rev. Geo. Bell had not found the Cherry as prolific as the Red Dutch; were it only as good a bearer, he would prefer the Cherry. He regarded the Black Naples as a very valuable sort, although very little was said about it. It made a most excellent jam, which was useful in many ways, and made very wholesome and refreshing drinks.

Mr. Arnold had grown a number of so-called varieties of Black Currants, such as the Black English, Black Grape, Black Bungup, but could not see enough of difference to make a distinction. The Red Dutch had been badly injured by the currant borer of late, and was inferior when compared with others. The Cherry was tart, but the White Grape was of fine flavour first class.

Mr. Freed remarked that the Black English and Black Naples differed in time of ripening. The Missouri is a very poor affair. The White Grape is the finest flavoured, but the Red Cherry is the best for jelly. The Champagne made a very handsome jelly.

The President exhibited some samples of the Champagne variety, which were of a beautiful bright pink colour, and intimated that any member of the Association could have cuttings from his plants, as he had several of them.

Mr. Holton considered the Cherry as the best for Market, and for jellies the Red Dutch when well grown. Cultivation makes a great difference in both flavour and size of the Red Dutch, being very much improved in both by liberal supplies of manure, clean cultivation, and judicious pruning. The currant worm is easily destroyed by timely and persistent use of hellebore, in the proportion of one ounce to a pail of water. The months of the currant (stem) borer can be destroyed by the use of dishes of sweetened water or poisoned cloths. The enemies of the black currants are not so numerous or so serious as those of the other sorts.

Mr. MacCallum has found the several sorts of our ants to be quite prolific. He grew the Champagne, Cherry, and Red and White Dutch.

The President called the attention of Mr. Saunders, who is the Entomologist of the Association, to the existence of a small insect found feeding on the black aphid, and in this way rendering a valuable service. He thought it might be the same as the insect known in Scotland as the "Grave Digger."

Mr. Saunders stated it was not the "Grave Digger," but was the larva of one of the Lady-birds, and very much resembling the "Grave Digger." He exhibited several of them, which he had with him in a small box. They were about three-sixteenths of an inch in length, dark purplish colour, with yellow dots. He also stated that there was a gauze-winged fly, which was doing its share in the destruction of these aphids, with which it was desirable all fruit growers should be familiar and recognize it as a friend. Its expanded wings measured about three-quarters of an inch; it had bright fiery eyes, and, when handled, emitted a disagreeable smell.

GOOSEBERRIES.

The next question discussed relating to gooseberries—which are the best six varieties?

Mr. Hyslop had been successful in growing the gooseberry. The Houghton succeeded the best; but he had also raised fine fruit of the Whitesmith, Ironmonger, &c. He had succeeded in preventing the mildew by mulching.

Mr. Brooking had been troubled some with the mildew on a clay loam soil. The Whitesmith always mildewed, and so did the Warrington. He had raised a couple of seedlings, the one dark green, the other a dark variety. The caterpillar did not feed on the foliage of the dark green one. Had found the Houghton's Seedling to be one of the best for market.

Mr. John Freed remarked that the Whitesmith does not mildew on the Hamilton clay. Has planted Downing's Seedling, a good light green variety.

Mr. Morse grows for his own use the Houghton's Seedling. This is free from mildew, but Downing's Seedling mildews.

Mr. Osborne had been much pleased with Warrington, Jolly Angles, and Hardy's Red. He trims close, plants six apart, on a light gravel soil. There is a berry in Mr. Kerr's garden at Beamsville, which never mildews; it has a tuft upon it.

Mr. Saunders said that all the foreign sorts mildewed badly about London. The Downing mildews and bears poorly when the plants become old. Houghton does not mildew.

Mr. Woolverton named only the Houghton.

Mr. W. H. Mills is of opinion that by growing the gooseberry well up from the ground, and by mulching with cut grass and giving the mulch an occasional sprinkling with water, in which a little salt has been dissolved, the mildew may be prevented. The Houghton is a good variety, being much inclined to over-bear.

Mr. Arnold remarked that if confined to the one variety he should choose the Downing's Seedling. Mr. Downing raised two seedlings; only one of these has he thought worthy of a place in his great work on the Fruits and Fruit Trees of America. This is the one there described under the name of

Downing, and is a light green fruit. The other, known as his number two, is a red one, and that one he (Mr. Arnold) would choose as the second. Mr. Hart, of Paris, has some promising seedlings.

Mr. Cranfield raises gooseberries; his do not mildew.

Mr. Rowe, of Paris, said he came to the meeting on purpose to speak a friendly word for gooseberries. He has cultivated them very successfully for seven or eight years. Has grown Ploughboy, Roaring Lion, and Conquering Hero, and kept them from the mildew. He applied water, salt and ashes, and this prevented them from the mildew. He used unleached ashes, sprinkling them on the bushes. His soil is kept in a high state of cultivation.

Mr. Rykert has been informed that abundant mulching with grass would prevent the mildew. He had tried several of the English varieties, but was obliged to fall back on Houghton.

Mr. Barnes has tried the plan of letting the plants take care of themselves, and they always mildewed.

Mr. Lister has failed with the best gooseberries.

Rev. Mr. Bell thinks something besides mulching is needed, and that is a more uniform temperature. Has found good gooseberries at Guclph, on the Speed, raised little above its level.

Mr. Lovry inquired what was the cause of mildew.

Mr. Mills said he thought it was a parasitic plant, which grew upon weak or sickly gooseberry trees, but could not thrive upon those that are in perfect health.

Mr. Arnold thought that mildew was a parasitic plant.

The President thought we were trying to grow the gooseberry in an unfavourable climate, and hence our great want of success.

Mr. Saunders stated that sulphur is a remedy for the mildew.

Mr. McCallum thought that our sudden and extreme change of temperature brought about those conditions which were favourable to the growth of these parasitic fungi.

Professor Buckland thought that the climatic conditions of the west and south of England, Cheshire and Lancashire, and parts of Scotland, and most of Ireland, were favourable to the growth of the gooseberry. Wherever the vine flourished the gooseberry failed. He spoke of the recent examinations into the subject of the mildew by the Rev. Mr. Buckley, of England, who ascertained that the spores of these fungi exists in the atmosphere, and when found a suitable place for development with favourable conditions, there they grew, and produced the appearance we term mildew. Our climate does not favour the growth of the gooseberries, and Canadian cultivators of this fruit will always find themselves beset with difficulties arising from the varying condition of the atmosphere, and especially its very variable and extreme hygrometric conditions.

CHERRIES.

The best ten varieties of cherries to give a succession.

Mr. Freed said that the earliest useful cherry was the Mayduke, then came the Governor Wood, Bello d'Orleans, knight's Early Black, Black Tartarian, American Heart, Bigarreau of Yellow Spanish, Na-

polcon Bigarreau, Tradescant's Black Heart Hortense, and Late Duke. These were all good sorts, and would keep up a good succession. He had noticed that the Governor Wood Cherry, when grown on the Canada Wild Plums, as a stock, ripened its fruit five or six days earlier than when grown on the Common Magyard Cherry stock.

Mr. Lowry remarked that he had been in the habit of working the finer varieties of cherry on the common Kentish Cherry.

Mr. Morse had never tried the Reine Hostense, and would therefore substitute for that variety in Mr. Freed's list the Coe's Transparent. It is a fine cherry, better flavoured on high land, and ripens earlier than when grown on low lands.

Mr. L. Woodverton named the following as keeping up a good succession, namely—Governor Wood, Rockport Bigarreau, Knight's Early black, Elton, Black Tartarian, Belle de Choisy, Napoleon Bigarreau, Black Eagle, and Elkhorn.

Mr. Barnes stated that he had a variety which ripens three weeks after any other cherry; is tart, and excellent for canning.

Mr. Saunders and Mr. Mills thought that the lists proposed were excellent, and made no suggestion.

Mr. Rykert thought the following four old varieties were the best, namely, American Heart, Elkhorn, Mayduke, and Black Tartarian.

Mr. Lowry thought there were not enough acid cherries, mentioned in the lists given. He esteemed the Mayduke among the first of cherries, and though the Kentish for canning and all cooking purposes was one of the best that is grown.

The discussion having terminated, the Report of the Committee on Seedling Fruits was read and accepted. It is as follows:—

Cherries—No. 1, a seedling from Mr. Jas. Dougall Windsor, medium size, jet black, flesh tender lucious, very good.

Seedling No. 2, from Mr. James Dougall, large, dark, clouded red, firm flesh, not high flavoured.

A seedling cherry from Mr. Hatt, large, lively red, fine flavour, closely resembles the Mayduke in its best state.

Seedling cherry, from Mr. Freed, glossy black, large, juicy, good flavour, promising sort, called "Steven's black heart."

Seedling cherry from Mr. Freed medium or less pale red, semi-transparent, slightly bitter, pleasant flavour.

Seeding gooseberry from Mr. Hart, Paris, large oblong, smooth, yellow, said to be free from mildew, promising sort.

The Association adjourned, to meet again at Goderich at the call of the President. The meeting at Goderich will be held in the autumn, at a day to be named hereafter, and of which due notice will be given.

AMONG THE STRAWBERRIES.

The present season has been a very trying one upon strawberries in the vicinity of New York city. We had several late frosts, which did considerable damage to the early flowering sorts, and these were

succeeded by a severe drought which, in some localities, annihilated the entire crop. The unfavourableness of the season should be taken into consideration in estimating the value of sorts, and this we have done in the following notes upon a few of the old and new varieties in our grounds. They are all growing in the same kind of soil and in one plot. Each variety is planted in a separate bed, with three rows in each; therefore, the conditions under which they are placed are the same.

Agriculturist.—Not more than one-third of a crop, and the berries small.

Jucunda.—This is a complete failure; but this is no new feature, for in our grounds it has never been worth cultivating.

Hovey.—Two years since we procured some genuine plants, direct from Boston, of this old and once very popular sort, for the purpose of comparison with some of the newer varieties. We have a fair show of fruit, but must confess that it is not quite up to the modern standard of excellence.

Kentucky.—This was sent out as a very late sort, which was to prolong our strawberry season at least two weeks; but it is on time, and fully up to time with many of our old favourites. It is, however, a very promising variety. The berries are large, conical, bright deep scarlet, and the flesh firm. It is very productive, and we think will make an excellent berry for market as well as home use. Its quality is very much the same as the old Jersey Scarlet; therefore may be called good.

Michigan.—We confess to be a little disappointed with this new variety. The plant is a vigorous grower; leaves large, deep, glossy green; the fruit abundant; but only of medium size, rather soft, and not first-rate in quality.

Boyle's No. 30.—A complete failure this season. The plants bloomed splendidly, but they bear no fruit. Why, we cannot tell.

Green Prolific.—A heavy crop of handsome fruit, although the bed is within eight feet of the Boyle's No. 30, and the plants in each are equally vigorous and healthy. In productiveness the Green Prolific will rank with the Wilson. The fruit is of much lighter and better colour, but not quite so firm.

Lenning's White.—A fine show of flowers, but very little fruit. This, however, is its general character in favourable seasons.

Napoleon III.—Far better and more productive than we have ever known it before. The drought seems to have improved its bearing qualities wonderfully. The brilliant light scarlet colour of the berries, and their large size, are certainly attractive qualities, but the shape is indescribable, being a kind of a cross between a coxcomb and a club-footed cabbage.

Birnes' Mammoth.—Scarcely any fruit, and what there is, is not very good or large.

Nicanor.—Early, small and abundant.

Triomphe de Grand.—A fair crop, and berries of good size. The most reliable and valuable foreign sort ever imported.

President Wilder.—A new and very handsome sort, but from present indications will be too soft for market, and we fear not of first-rate flavour. It resembles the Hovey, and we should think it a seedling therefrom, without cross fertilization.

Wilson.—This is the ever reliable among straw-

berries. Frosts, drought, or deluge have no considerable effect upon this variety. Our plants are as loaded, and the berries nearly as large, as in the most favourable season. The late frosts destroyed thousands of the early flowers, but more came, and the fruit is abundant.—*Rural New Yorker.*

PLUMBAGO CAPENSIS.

Allow me to say a few words about a special favourite of mine, the well-known half-hardy plant, *Plumbago capensis*.

I wonder why it is not more freely used in the decking of gardens, for it will prosper out of doors, at least during the three summer months, and its delicate beauty, which, I think, I may call unique, more than compensates for the trouble of sheltering it before the advent of cold weather.

So zealous an advocate am I of my favourite that I would not fain, perhaps in unconscious defiance of botany, transfer to it the name *Agathæa cælestis*, which is bestowed on a plant with fewer characteristics (as it seems to me), suggestive to the country where nothing ever fades. All flowers are heavenly, all are endowed, either collectively or individually, with the dignity of symbolism. The fragrance of one, the purity of another, the grace of a third; the endurance, preserverance, unobtrusiveness, or majesty of many more, are palpably indicative of high and holy things; but I think no flower is gifted with loftier or more varied eloquence than the gentle *Plumbago capensis*. It seems the flower of truth pre-eminently. Mark its delicate transparency, its wide-open innocence, the exquisitely clear purity of its colour, pale as if in condemnation of all things exaggerated, but deepening in its own sweet tint in pencillings that stream out lightwards from the flower's heart. In virtue of its long-tubed throat, the *Plumbago capensis* (I repeat its second name to distinguish it from *P. Larpentæ*), may rank among the up-springing plants, as the sweet flower of the west wind, and all the *Amaryllis* and *Crocus* tribes; and this habit of darting upwards, emulating in charity of hue "the Shechinah the blue" beyond the clouds, is additionally typical of "things that are not seen." Again, the fragility of this plant's physique proclaims it to the fanciful mind a stranger in a world of storms. Among such blossoms, immortalized, we feel our beloved in the church triumphant, might fitly dwell.

The *Plumbago capensis* is, in point of scent, negative; but with the loyalty of an enthusiastic partisan, I declare it to be on that very account the better fitted for the work-table, the sick-room, and the various circumstances of everyday in-door life. In common with many others, I suffer physically from the near neighborhood in rooms of the *Hyacinth*, *Lilac*, *Syringa*, and many of the *Lily* tribe. The *Plumbago* ministers, but never oppresses—never "makes faint with too much sweet," those who permit its presence.

My little flower garden is not much more than 20 yards square, and my greenhouse correspondingly unpretending; but I could not over-rate the joy they give me. I believe I speak the sense of all lady gardeners when I say that none who have not personally wooed flowers can guess how gratefully they respond, nor with what full measure soothing, elevating, and delighting their cultivators. Calmly

faithful always, they brighten through life our gardens, and in death our graves.—*Cor. in Cottage Gardener.*

GARDEN GLEANINGS.

Fifty-seven thousand baskets of peaches reached New York on Tuesday, and in an incredible short space of time were thrown upon the market.

DUCHESS OF OLDENBURGH.—The Wisconsin Horticultural Society report that this variety is the most hardy apple in cultivation in that State. They find next to it the *Red Astrachan*, *Talman*, *Sweet*, and *Snow Apple*.

Because a Michigan orchard, which a rascal had girdled, bore a heavier crop after the girdling than ever before, some one has started the theory that girdling is a good thing to increase the fruit-producing power of trees. It would be better to wait on the girdled orchard a year or two longer. The final result may tell a different story.

Cap. Pierce, of Arlington, N. Y., a very successful orchardist, finds that the best time for pruning so as to have the cuts heal rapidly, is the last week in May, or the first week in June. His time for removing surplus wood is in the Fall. He cuts off a limb six or eight inches from the place where it is to be cut for healing over, and then, at the time specified, he goes over and cuts off these stumps, close up, with a sharp saw. So says the *Boston Cultivator*.

The *Country Gentleman* says that cultivators frequently allow raspberry bushes to run rampant the season through, and do the pruning the following Spring, when much severe cutting is requisite in bringing the plants into shape. A proper share of attention at the right time, and a small amount of labour, will enable the owner to bring them into a suitable form, retain all their vigor, and obviate much of the care required for staking the plants.

A correspondent of the *San Francisco Pioneer* says that Mr. Smith of Anheim, South Carolina, has raisins of his own curing which are equal to any that are imported. He simply cuts off the bunches and throws them on the ground to dry. He plants about 1,000 vines to the acre, and says that when in good bearing condition they produce about 20 pounds of raisins to the vine.

Celeriac, or turnip-rooted celery, is cultivated to some extent by market gardeners. It is a strong grower, and as it does not require to be blanched, it does not need to be earthed up like "stalk" celery. The *celeriac* form a bulb like a turnip, and is much esteemed by the people of Germany and France, who boil the root, and form it into a salad by pickling and slicing.

The *Massachusetts Ploughman* says that many of the apple blossoms, of which there was no great abundance this year, proved abortive owing, no doubt, to the excessive draught of last year, and the want of a full supply of pabulum, or elaborated nutriment, to develop them. Fruit has not "set" very fully in consequence.

Editorial.

THE FRUIT GROWERS' ASSOCIATION OF ONTARIO.

AUTUMN MEETING.

We are always glad to publish information in regard to the above named useful Association, but are usually obliged to obtain the facts at second hand. The Horticultural Department of the *Weekly Globe* is ably edited by the Secretary of the Association, and we are indebted to its columns for the following:—

“It has been decided to hold this meeting on the 15th day of September, 1871, at Goderich, and we notice that the Directors have decided to offer premiums for best samples of fruit to be exhibited at the meeting. Competition is open to all members, and to all who may become members, and as any one may become a member by sending the sum of one dollar to the Secretary, D. W. Beadle, St. Catharines, it might be said that the prizes are open to all.

Arrangements are made whereby any one who may not be able to be present at the meeting may compete for the prizes. Two of the Directors, Messrs. A. M. Ross and W. H. Mills, have been appointed a committee to receive and place on the tables any fruit that may be sent to the exhibition, and see that it is properly arranged and classified. Any boxes of fruit intended for exhibition may be sent, charges prepaid, to A. M. Ross, Esq., Goderich.

The prizes are three in each class—eight, six, and four dollars, for first, second and third prizes. In apples and pears there must be twenty varieties, named, three specimens of each variety: in peaches, plums and crab apples, there must be ten varieties, named, and six specimens of each sort; and in grapes there must be ten varieties grown in open air, three bunches of each variety, named.

A very distinctive feature of this prize list is the large number of prizes offered for Canadian seedling fruit. In order to be worthy of a prize, it is very correctly required that the fruit shall be equal to the varieties of the same kind and season now in cultivation. The prize offered is five DOLLARS each, for the best Canadian seedling apple, pear, peach, plum and grape;

six bunches of the grape, and a dozen specimens of each of the other fruits.

There are also two prizes of five and three dollars for the first and second best Canadian hybrid grape, three clusters of each, not before exhibited.

There are also prizes of two dollars each for the best quart of uncultivated Canadian wild plum, the best three clusters of uncultivated Canadian wild grape, the best twelve quinces, the best quart of autumn bearing raspberries, and of autumn bearing strawberries.

In apples, pears, plums, peaches, grapes, and crab apples, not seedling, exhibitors can only take one of the three prizes offered under the head of each fruit.

We notice also that it is required that all the fruit receiving a prize shall be the property of the Association. The object of this is to enable the society to avail themselves of this opportunity to send samples of some of our best fruit for examination and comparison by kindred societies in the sister provinces and other places, so that a correct knowledge of the fruit growing capabilities of the country may be as widely disseminated as possible.

Copies of the prize list will be at once mailed to all members of the Association, and any others desiring any further information on the subject can obtain it by writing to the Secretary.

At the last meeting of the Directors it was ordered that all persons who have paid their membership fee for 1871, and had not received the pear tree and small fruits distributed in the spring, should be supplied with them in the fall. Such members would do well to notify the Secretary of their having failed to receive their tree, &c., so that none shall fail of getting them in the autumn.

We learn also that the Directors have appointed several committees to examine personally different parts of the country, and inquire into the fruit growing capacities of the several sections, and make a report in writing of the peculiar advantages and disadvantages found to exist, and the present condition of fruit culture therein. We most earnestly ask of the farmers and fruit growers of these sections that they will give to the gentlemen of these committees every facility for prosecuting their inquiries that may be in their power, for such investigations as these will largely contribute to the spread of much needed

information in regard to the culture of fruit in this Province.

The sections of country that it is intended to visit this season are—1st, that part lying adjacent to the Detroit River and the North Shore of Lake Erie, extending from Windsor to Amherstburgh, and Morpeth; 2nd, the county of Elgin; 3rd, the county of Brant; 4th, so much as lies within a radius of fifteen miles around the city of Toronto.

Another step has been taken by the Directors which seems likely to be of great benefit to the country, and that is that they will furnish without charge to any member residing in the colder sections of the country scions of any of our fruits, on condition that they will have them grafted and cared for and make a report to the Secretary of their adaptation to the climate. We hope very many gentlemen will avail themselves of this opportunity to obtain scions of our most desirable fruits, and of ascertaining whether they will succeed in their localities.

In addition to the prizes for seedling fruits already offered, the Association has also authorized the committee on seedling fruits to grant an award not exceeding ten dollars to the person exhibiting the best seedling fruit of its kind during the year. This fruit need not necessarily be exhibited at any meeting of the Association, but may be sent at any time to the President, Rev. R. Burnet, Hamilton, who will summon the Fruit Committee to examine it, and their examination will be a sufficient exhibition."

LAURA BEVERLY GRAPE.

We find the following in the last number of the *Weekly Globe* :—

Our exchanges are circulating the following paragraph :—

"The *Ontario Farmer* says : Laura Beverly, a grape produced by one of the Niagara District Vineyardists, is very highly spoken of by Mr. Beadle, Horticultural Editor of THE GLOBE. We have not yet fruited it, but on the recommendation just referred to, it has found a place in our garden."

In the CANADA FARMER, for Feb. 7, 1869, page 72, we stated that the Laura Beverly, introduced by the Rev. Alex. Dixon, of Port Dalhousie, so very closely resembles the Creveling that good judges of grapes

are disposed to believe them to be identical. It is of the same colour, time of ripening, size of fruit, and subject to the same fault of forming straggling and imperfect bunches.

Since that time we have had further opportunity of comparing the Creveling and Laura Beverly growing in near proximity in our own grounds, and are fully convinced that Mr. Dixon was laboring under a mistake when he sent out the Laura Beverly under the supposition that it was an entirely new and distinct variety. Before giving the variety a name, Mr. Dixon exhibited the fruit at one of the meetings at the Fruit Growers Association of Ontario, stating that it was from a vine growing in his garden, and that he believed it must be a chance seedling, having no recollection of planting any vine in that place. The grape was not known at that time to any of the members present. Subsequently the writer saw on exhibition a sample of the Creveling, and, struck with the resemblance in appearance and flavour to Mr. Dixon's grape, obtained a cluster of it, and with it in hand made a visit to Mr. Dixon's garden. Mr. Dixon was not at home, but permission was kindly given to examine the grape vine, and on comparing the straggling bunch of Creveling with the bunches on Mr. Dixon's vine which were then well filled out, and believing also the berries on Mr. Dixon's vine, to be somewhat larger, we came to the conclusion that Mr. Dixon's was a larger grape, setting its berries well on the bunch, and though closely resembling the Creveling in flavour, superior to it in these particulars.

The following season, however, on visiting Mr. Dixon's vine, the bunches were found to be very imperfectly set, and the resemblance of this vine, which he had meantime named the Laura Beverly, to the Creveling, was mentioned to Mr. Dixon, and the inquiry started if there was any possibility of the Creveling having been planted by him. His reply was that he had but very recently heard that name applied to any grape, and had certainly never received any of that name, and to this day Mr. Dixon is unable to make out how this vine came into his premises, though himself convinced that it is identical with the Creveling. Here, then is an instance in which a grape-vine came to be re-named and re-introduced to the public, without any intention to deceive, through

the lack of wider acquaintance with the varieties already in cultivation.

Whoever may have planted this grape under the name of *Laura Beverly*, supposing that it is anything different from the *Croveling*, will be disappointed; but if it has not been already planted under its true name, it will be a welcome addition to the list of early grapes, notwithstanding its defect in not perfecting all its berries.

On the above we have only to remark that we bought the supposed "*Laura Beverly*" from Mr. Beadle, on his high verbal recommendation of it when we were on a visit to his nursery, in the fall of 1868; that it is showing fruit this year for the first time; and that we feel disappointed that it should not prove a native product, seeing this fact subtracts one from the number of our Canadian grapes.

IN BEHALF OF THE BOYS.

The *American Agriculturist* makes the sensible remark that a workshop is a necessary department on every farm—not only necessary, but it affords an agreeable variation to the boys, and in rainy days will furnish them profitable and pleasant occupation. Give them a tool chest and a supply of tools, and let them make all such things as rakes, harrows, hand-sleds, hencoops, mend harness, cut threads on bolts or burrs, or anything else they desire. Let them experiment there as much as they wish and by and by you will see them bring out something useful, save many trips to the blacksmith's or wagon-maker's, and many hard-earned quarters. If "variety is the spice of life," it is surely needed on the farm where hard and constant labor is the rule, and recreation is the exception. If you give them a supply of oil and paints, you will probably some fine day find the plows and harrows, or may be the old wagon, looking like new, in a new coat, and the garden gate smiling to the passer-by, in a new clean dress. By all means try to induce them, both by practice and precept to keep the work-bench neat and the shop

orderly. Habits thus formed will influence them through life, and may lay the foundation for future success. If you cannot teach them yourself, furnish them with a book; there are many such published at such a price as will be repaid many times within a year, besides leaving a lasting investment of good effects for a lifetime.

CHEESE FAIR.

We learn from a circular sent us by the Secretary that the Canadian Dairymen's Association will hold a Cheese Fair at Ingersoll, in connection with the Exhibition of the South Riding of Oxford Agricultural Society, on Sept. 21, 22, when fourteen prizes varying in amount from \$100 to \$5 will be competed for, the cheeses exhibited to be of ordinary factory make, in lots of best six, over 50 pounds each. A meeting for the discussion of dairy matters will be held in the Town Hall on the evening of the 21st. Further particulars may be had by addressing R. A. Janes Esq., Secretary, Canadian Dairymen's Association, Ingersoll.

ANNEXATION.

The *Western Rural* of Aug. 12., has the following Editorial paragraph:—

"Canada papers report the feeling in favor of annexation rapidly growing, and that the majority of intelligent people there expect in a few years to be a part of the United States."

We beg to ask our contemporary what "Canada papers" give any such report, and challenge it to name any respectable journal from end to end of the Dominion that either chronicles or advocates the State of things pictured in the above fancy sketch. The *Western Rural* resembles a certain Irish Member of Parliament who boasted that he trusted to his memory for wit, and to his imagination for facts. This is one way of manufacturing public sentiment in quarters where annexation is regarded as "manifest destiny," and where less artifice and more truthfulness are desirable. The same number of the *Rural* states that a pamphlet entitled "*The Fall of England*," has been published in New York, and "is eagerly sought after." No doubt.

"Scissors" of the *Guelph Mercury* dryly relates his woes in mournful cadence, after the manner of Dryden: "Dry is the weather, dry the clothes upon the line; dry is the pool where erst while slept the swine; dry is the meadow, throat and hill, but our exchanges!—they are drier still."

A WELL DESERVED COMPLIMENT.

We are glad to learn that Mr. F. E. Morse, the efficient and gentlemanly General Western Passenger Agent of the Lake Shore & Michigan Southern Railway, in Chicago, was lately made the recipient of a very elegant gold watch chain, with charm attached. The donors were his railway friends and fellow employees in the office, who had conducted their operations of preparation for the gift in so quiet a manner that Mr. Morse had absolutely no intimation of their intentions until upon entering the office early one morning he found the valuable gift upon his desk, accompanied with the list of the names of the donors.

While chronicling this pleasant affair, we take the opportunity of commending the Michigan Southern route between Detroit and Chicago to Western travellers and tourists, as equally pleasant, well-equipped, and well-managed with the more frequented Michigan Central route. We have travelled both and know whereof we affirm.

WEEDS.

We have a painful impression that, taking the country at large, weeds are on the increase, and at the same time it is our settled conviction that high culture is of but little avail without clean culture. Too much care cannot be taken to destroy the annual weed crop before it goes to seed. The proverb is quite true that "One year's seeding makes seven year's weeding." We have a law for the thistle nuisance, but it is practically a dead letter. We ought to have a general and stringent law, to the encampment of weeds, for it is of little use that one farmer diligently keeps down these pests, if his neighbours let them increase at will. There is, we believe, such a law in the State of Iowa, inflicting heavy penalties for weed growing, and if we mistake not, it is lived up to. This piece of wise legislation if carried out, will do much to place Iowa in the foremost rank of Agricultural regions. In the absence of adequate legal suasions we could wish every farmer had the same horror of weeds, to which Joseph Harris of the *American Agriculturist* gives expression in one of his recent "Walks and Talks:

What I have on the brain is *weeds*. Some people think that with modern agricultural implements, and the vast extent of fertile land in the United States, we shall produce so much more grain, and meat, and wool, than can possibly be consumed by our population, that prices will fall so low that they will be no profit in farming. Were it not for weeds and insects, such probably would be the case. My own farm and the Deacon's are overrun with weeds. We are fighting them to the extent

of our ability, and are meeting with gratifying success. Our farms are becoming cleaner and cleaner every year, but even yet the weeds cost us more than all other taxes—town, county, State, and national—direct and indirect combined. I do not mean that the labor of destroying them costs so much, but the weeds that escape, damage our crops to such an extent, that we lose half our profits. You must recollect that the actual profits of farming, after deducting the interest on capital, the cost of labour (our own or others'), the wear and tear of implements, etc., are exceedingly small. I know of comparatively few farms where, after making these deductions, the actual profits are more than \$5 per acre. On the other hand, I know of scores of farms where, at least on some fields, the weeds damage the crops \$10 per acre. And depend upon it, no farmer can be really successful until he makes an earnest persevering effort to clean his land. It is fortunate for us, that the means used to accomplish this object will do much towards enriching the soil.

THE COMING EXHIBITIONS.

The time for our annual Fairs, Provincial, Western, Central, County, and Township, is just at hand. We confess to a fear lest in some quarters and in some respects, the thing should be overdone, and a division of interest and attendance, lead to discouragement. It need not be so after people will only rally and sustain these Exhibitions, as they ought to be sustained. As our means of inducing this, we transfer to our columns the following admirable address of a Wisconsin Agricultural Society, the object of which is to stir up farmers and others to a proper interest in these matters:—

The object in establishing and maintaining Agricultural Societies is improvement in the processes and products of agriculture. It is customary also to foster and stimulate various other branches of industry, inasmuch as practice does not interfere with the primitive object, and adds materially to the interests of Fairs.

The success of these societies depends somewhat upon the skill and energy of the officers, but much more upon the appreciation by the whole community of the benefits of such societies, and a general co-operation in sustaining them.

But will our society, if properly sustained and managed, aid in improving all kinds of farm stock; in introducing more economical machinery for raising, harvesting, handling and threshing our crops; and stimulate improvements in all the industrial pursuits?

If so, it should receive our earnest support. We have made vast improvements in all branches of industry and especially in implements and machines since the days of our fathers.

A great change has been made in agricultural implements within a few years, and manufacturers have made use of fairs to advertise their wares; by which means they have been brought under the immediate notice of the farmer, who has commented upon their excellence and imperfections, and im-

improvements suggested, of which the maker has taken advantage. These are some of the benefits that have followed, as the result either directly or indirectly of Agricultural Fairs. It is at our fairs where the various productions of mechanism are brought together, and their differences seen and noted, and ideas of improvement are suggested. There is little doubt that we owe the advantages we possess in the art of husbandry over our ancestors, more to the fairs than to all other causes combined.

The same is true of improvements in farm stock. At the Fairs are brought together the various breeds and grades of stock, and here the intelligent farmer studies the point of excellencies or the defects in each, and is prepared to decide which are the best adapted to his purpose, or whether a cross between two breeds would be preferable to any of the existing breeds. In this way stock of all kinds is improved, new and pure bloods are introduced, emulation and interprise are excited, and improvements take place.

A given amount of food will produce more beef, pork, mutton, wool, &c., than it would twenty years since, while it requires far less labor to raise feed for animals, owing to the improvements in implements and processes of cultivation.

Let us look at the history of those States and counties where Fairs are well sustained. We find the citizens of such States and counties have increased in wealth and intelligence, through the influence of the Fairs. That the value of real estate, of animals, of improvements in the art of husbandry, as well as the various mechanical branches, have been almost in direct ratio to the interest taken in these exhibitions.

We well know our state and County Fairs have been useful. They have contributed to the progress of agricultural improvement throughout the country. Thousands have visited them and have seen specimens of this progress. The improvements which have been made in everything connected with farming operations can plainly be seen in every agricultural community, and a better character of farming is maintained.

Many of our citizens take a wrong view of the real intentions of Agricultural Fairs. Each one is apt to think that his neighbor must take something to the Fair to exhibit, while he or she is only invited to go to pay the gate fee and see and examine what is there. The consequence of such a state of things is a small show of agricultural products and home manufacturers. This is all wrong. Every member, and every farmer and mechanic in the country ought to be a member—should bring something of his or her growth or manufacture. Every man who has articles worthy of exhibition, or who has the ability to attend the fair himself, is accountable to that extent for the success of the Society. Let us take hold of this in earnest and in the right way, and we shall see a marked improvement in the value of our farms and farm products. Let every land-holder and mechanic produce and bring to the Fair something of real value, having some points of excellence and the best he has or can produce under the circumstances. He will then feel a personal interest in the Fair.

It is out of the power of any Board of Managers to make a Fair a success without the co-operation of the people. There should be a hearty, healthy

interest in the mind of every farmer in the country for the successful carrying out of everything which is for the good of his County Society.

Every farmer should take pride in it, and use it as an instrumentality made by him for his own benefit and should go to its meetings and exhibitions with the determination to do all that in him lies for its prosperity, that it may be made a power to be felt throughout the country in the improvement of husbandry and a direct instrumentality to benefit each by the influence which it exerts on all. The County Society was formed to promote the interest of the farmers, and that has been its object and aim from its foundation to the present time.

It is to be hoped that in the future all our citizens will come forward with their products of the soil, their stock, and whatever they may have produced by their skill or industry, both of the useful and ornamental, and may the ladies, as in the past, make their department the most attractive portion of the exhibition. In this way only can our Agricultural Society take its position by the side of our sister County Societies.

EXPERIMENTS AT AGRICULTURAL COLLEGES.

We have much pleasure in giving publicity to the following circular which we find in a recent number of the *Prairie Farmer* published in the city of Chicago:—

After correspondence with those more immediately interested, it has been decided to call a convention of Presidents of Agricultural Colleges, Professors of Agriculture, or other persons in the United States or British Provinces who are engaged or interested in promoting the art or science of agriculture by experiments in the field or laboratory, for the purpose of organizing, consulting and co-operating in the great work of advancing the cause of agricultural knowledge and education, especially by experimentation with similar crops under similar conditions, at all the agricultural colleges.

Accordingly a meeting will be held, commencing on Thursday, August 24th, at 10 o'clock A. M. in one of the halls in *The Prairie Farmer Building*, 112 Monroe street, in the city of Chicago, at which the attendance of all interested, but especially of the representatives of the agricultural colleges of the country is earnestly invited.

Perhaps upon various topics related to the objects of the meeting are expected from several gentlemen, and are solicited from all who have any suggestions to make thereon.

This meeting is called with the approval of the following gentleman, most of whom expect to be present:

I. C. Abbott, President of the Michigan State Agricultural College.

Manly Miles, Professor of Practical Agriculture Michigan Agricultural College.

J. M. Gregory, Regent of the Illinois Industrial University.

W. C. Flagg, Secretary of the Board of Trustees Illinois Industrial University.

W. W. Daniels, Professor of Agricultural University of Wisconsin.

A. S. Welch, President Iowa State Agricultural College.

Wm. W. Falwell, President University of Minnesota.

Joseph Denison, President Kansas State Agricultural College

J. B. Bowman, Regent of the Kentucky University.

W. S. Clark, President of the Massachusetts Agricultural College.

Wm. H. Brewer, Professor of Agriculture Sheffield Scientific School of Yale College.

Geo. C. Swallow, Professor of Agriculture University of the State of Missouri.

Hunter Nicholson, Professor of Agriculture East Tennessee University.

Hon. John Carling, Commissioner of Agriculture Province of Ontario.

Pro. Buckland, Toronto University.

Hon. Horace Capron, late Commissioner of Agriculture.

EDITOR'S BOOK TABLE.

REPORT OF THE CANADIAN DAIRYMEN'S ASSOCIATION.

—We have received a copy of this publication, which embraces the transactions of the Association during the years 1869 and 1870, with a full report of the two public meetings held at Ingersoll, and a copy of the more important papers read at each of those conventions. In addition to this valuable matter, some of the most interesting and instructive papers read before the American Dairymen's Convention, at Utica, are included in this appeal compilation.

THE MANUFACTURER AND BUILDER.—The August number of this sterling periodical has been duly received. It presents its usual array of able and instructive articles, all of the highest practical use to the manufacturer and artisan. Among others are papers on "Workmen's Cottages;" "Paints made of Copper;" "Interesting Tests of Girders;" "Machinery and Machine-shops;" "Manufacture of Horn and Tortoise Shell;" and one entitled "New Improvement on the Sunbeam," which practically, as well as theoretically demonstrates the falsity of the theory lately advanced by General Pleasanton, of bringing animals and vegetables to rapid maturity by exposing them to solar rays passed through violet glass. This publication is one that no mechanic can do without. It avoids technicalities and deals in the practical in such a way as to be readable and interesting. Its cheapness places it within the reach of all, its subscription price being only \$1.50 a year; besides which, the publishers offer liberal premiums to those forming clubs. Published monthly by Western & Co., No. 37 Park Row, New York.

HEARTH AND HOME—Last October this admirable

journal passed into the hands of Messrs. Orange Judd & Co., the well-known publishers of the *American Agriculturist*. The marked improvements then expected to appear in *Hearth and Home* have been fully realized, and it is now one of the choicest illustrated journals anywhere issued for the family circle—adapted to both juvenile and adult people, and meeting the special wants of the house-keeper. Besides it supplies very useful chapters for the garden and the farm, and an important news sheet, giving a valuable *resume* of the news of the week, up to the moment of issue. From 500 to \$800 worth of very fine engravings beautify *each* weekly number. We notice now a still further mark of enterprise on the part of the publishers; they have secured the exclusive editorial services of Edward Eggleston, so widely and favorably known by his writings in *Scribner's Monthly*, and many other magazines and journals, and especially as the chief superintending editor of the *New York Independent* for some time past. With this notable addition to the previously large and strong editorial force, *Hearth and Home* can not fail to merit and command a prominent place in every household, in city, village, and country. Specimen copies can doubtless be obtained of the publishers, as above. Terms, only \$3 a year. Single numbers, 8 cents. *Hearth and Home* and *American Agriculturist* together, \$4 a year. Better add one or both of them to your supply of reading; they are each worth infinitely more than the small cost.

CHOICE NEW MUSIC.

The following pieces of new music published by Root and Cady, 67 Washington Street, Chicago, Ill., are to hand and will be found to be what we have styled them—*choice*.

VOCAL.

Farewell, Beloved Friends, Farewell. Quartet, by Geo. F. Root. Kitty Vane and I. Song and chorus. Words by E. E. Rexford. Music by F. W. Reet. Kutschke's War Song. (Das Kutschkelied) Music by Otto Lobb. Out on the Shore. Ballad. Words by P. Fische Reed. Music by Charles A. Reed. The Children in the Grave Yard. Song and chorus. Written and composed by Robert L. Morris, L. L. D. From the Bosom of the Ocean I seek Thee. Song. Words by Bayard Taylor. Music by Mrs. C. L. Seaverns. Wreath of Vocal Beauties. Songs and choruses. Music by George W. Pearsley. No. 1, Little Robin tell Kitty I'm coming; No. 2, Those saddest words "Good Bye;" No. 3, Softly fall the silvery moonbeams. Go forget Me. Song composed by G. N. Dorsey. I Ne'er shall see my boy again. Song and Chorus. Words by John Montford. Music by George W. Pearsely. Beneath the Evening Star. Song and Chorus. Darling little Eva Ray. Song and Chorus. I've been waiting for thee at the window. Song and Chorus. When we sleep beneath the Daisies. Long and Chorus. The

Sweetest of the Sweet. Song and Chorus. Words and music by Frank Howard.

INSTRUMENTAL.

Flashes from the West. (Clairs Occidentals) concert piece for the Piano, by Robert Goldbeck, Director of the Chicago Conservatory of Music. Castanet Waltz (Creole) for Piano by Oscar Mayo. Fountain Waltz. Composed by A. B. Knapp. Brilliant Transcriptions of favorite ballads. By John Molter. No. 1, Beneath the evening Star; No. 2, Softly fall the silvery moonbeams; No. 3, When we sleep beneath the daisies. Riverside Trios Temps, for Piano. Composed by Sig. Pappino Melfi. Dash-Away Galop, for Piano. By C. L. Wells.

FOR THE GUITAR.

Æolian Strains for the Guitar. By Charles Harris. No. 1, Sparkling Dew Polka; No. 2, Crown of Roses Waltz; No. 3 Twilight Zephyrs. I've been waiting for thee at the Window. Song and chorus.

Agricultural Intelligence.

PROVINCIAL EXHIBITION.

CHANGES IN THE PRIZE LIST.

The Provincial Agricultural Association's prize list for the twenty-sixth annual exhibition, to be held in Kingston the last week of September, has been issued. The rules and regulations are essentially the same as last year. Entries of horses, cattle, sheep, swine, poultry and implements must be made on or before Saturday, August 26th, four weeks preceding the show; entries of grain, field roots and other farm products, machinery and manufactures generally, on or before Saturday, September 2nd, three weeks preceding the show. Horticultural products, ladies' work, the fine arts, &c., may be entered up to Saturday, September 16. Some changes have been made in the prize list. The prizes for road or carriage horses, agricultural horses and heavy draught horses, have been increased from 15 to 20 per cent. A similar increase is made in the prizes for the various breeds of cattle, except fat and working cattle, any breed; but in this latter class a third prize is added. The Prince of Wales' prize of \$60, which was last year given for the best lot of Leicester sheep, is this year to be given for the best short-horned bull and five of his calves, under one year old. Two dollars has been added to each prize for sheep, except fine-wooled for which the prizes remain as before, and Shropshire, Hampshire, and Oxfordshire Downs and fat sheep, for which the prizes are also the same, but a third prize has been added. The prizes for pigs have been increased in a similar ratio. The poultry prizes are the same as last year, except for chickens and ducks of 1871, which are reduced from \$4 for first, and \$2 for second, to \$3 and \$1. Some changes are made in the section of implements. The prize of \$25 for the best three-furrow plough, offered last year, is omitted. The prize for two-furrowed plough is increased from \$25 to \$30, and a second prize of \$20 added. The first and third prizes for the best seed drill, for sowing two or more drills of turnips or other seeds, are increased from \$8 and \$4 to \$10 and \$6; and the

prizes for the best horse-power thresher and separator are increased from \$20, \$12 and \$8, to \$30, \$20 and \$10. The other changes made in this section are the addition of the following prizes: Iron-beam ploughs, with steel mould board and wood handles, 1st, \$15, 2nd, \$10, and 3rd, \$5; horse-rake, without wheels, \$4, \$3 and \$2; vibrating threshing machines and separators, \$30, \$20 and \$10; assortment of factory milk cans and pails, \$5, \$3, and \$2; and assortment of malleable castings for agricultural purposes, \$12 and \$8. A special prize of \$50 is offered for the best two bushels, new variety, of hybridized fall wheat, exhibited by the original producer. With this exception the prizes for agricultural productions are the same as last year. The prizes for best 30 varieties of apples correctly named: best 20 varieties do.; best collection grapes grown in open air, not more than 12 varieties, grown under glass (all professional nurseryman's list) are increased from \$8 and \$6 to \$10 and \$8, and a third prize of \$6 added. A new prize of \$5 and \$3 is offered for the best collection grapes, six varieties grown in open air. The changes made in the general list of fruit are about the same as those of the professional. Some additional prizes are offered for cabbage and tomatoes of specified kinds. No changes are made in the section of plants and flowers. A new prize of \$20 is offered for the best three firkins of butter, fitted for exportation, not less than 56 lbs. in each firkin, made by the exhibitor. The prizes for the best firkin of butter in shipping order, not less than 56 lbs, have been increased from \$12, \$10, \$8, \$6, \$4, and \$2 to \$14, \$12, \$10, \$8, \$6, and \$4; and for best butter, not less than 28 lbs., in firkins, crocks or tubs, from \$8, \$6, \$4, \$3, \$2, and \$1 to \$10, \$8, \$6, \$5, \$4, and \$3. The only other changes in dairy products is the addition of three prizes, \$5, \$3, and \$2, for best 25 lbs beet root sugar. Some increase has also been made in the arts and manufactures department. Prizes for set of drawing-room furniture have been increased from \$15 and \$8 to \$20 and \$12; for sideboard do. from \$8 and \$4 to \$10 and \$6, and a few other articles in like proportion. The new prizes are—assortment of buttons, \$6 and \$4; willow peeler for taking the bark off Osier willows that will do the best work in a given time, cost of machinery not over \$10, \$5 and \$3; assortment of perfumes, \$6 and \$4; specimens of Canadian polished marbles, \$6 and \$4. The changes in the fine arts are as follows.—Professional or amateur—oil (originals)—any subject—increased from \$15 and \$10 to \$20 and \$12, and a third prize of \$6 added; landscape, Canadian subject, increased from \$12 \$8 and \$5 to \$15, \$10 and \$6. Amateur list—oil (copies)—any subject—increased from \$8 and \$5 to \$10 and \$6, and a third prize of \$4 added; statue or group in stone, from \$16 and \$10 to \$20 and \$12. Professional list—water colours (originals)—any subject—increased from \$10 and \$8 to \$15 and \$10, and a third prize of \$6 added; landscape, Canadian subject, from \$8 and \$6 to \$13 and \$8. In groceries and provision, the only change in the addition of prizes for assortment of cigars, Canadian manufacture, and 5 lbs refined sugar, Muscovado. The prizes for ladies' work are the same as last year. Under the section, machinery, &c., the following additions are made.—Printing press, water-wheel, wood-working machinery, wood-planing and matching machine, and wool-working machinery. Under the head of natural history,

the prizes for collection of native birds, stuffed, and collection of native insects have been increased from \$12 and \$8 to \$15 and \$10. Now prizes are offered for collection of Canadian fossils, \$10 and \$6, and collection of Canadian wild flowers and forest leaves dried, \$6 and \$4. The above comprise all the changes worth noting made in the prize list.—*Globe*.

THE WEATHER AND THE CROPS

Another month of somewhat exceptional character has passed with almost a repetition of the early draught of the summer, and alternate hot and cold weather, the latter occurring to a degree unusual for the season. Nevertheless, the report of the harvest and crops are on the whole very favorable throughout the Province. The yield of hay, though short, has turned out better than was expected. Fall wheat is nearly everywhere above the average, and in common with other grain, has been secured in excellent condition. Barley is somewhat light, and short in the straw, but is of excellent quality and colour. Peas and oats are both above the average. Root crops appear to want rain, but there is time enough yet for a good growth in all of them. There is every indication of the harvest being secured very early. Pastures are suffering from the continuance of dry weather.

A similar favourable report comes from most of the United States. Timely showers have followed the early draught, and brought all crops wonderfully forward after the trying ordeal. Grain has been secured very much earlier than usual, of good quality, and in quite an average quantity. Corn in most places is looking well. Considerable amount of damage, however, appears to have been done by insects of various kinds.

The weather report for the past month, from the Toronto observatory, is as follows:

Mean temperature 66° 0, being 1° 3 below the average, and 2° 8 colder than July, 1870. The warmest day was the 13th, 75° 3, and the coldest the 19th, 57° 6. The highest temperature occurred on the 9th, when the reading was 89° 4; the lowest temperature occurred on the 24th, 47° 8.

The amount of cloud has been slightly below the usual quantity, and may be divided as 4 clear days, 2 entirely clouded, and 25 more or less so.

The amount of rain is the smallest recorded in the month of July, with the exception of 1856 and 1858, which were respectively 1.12 and 0.51. The amount of rain for the past month is 1.25 inches, being fully two inches less than the average. The absence of the copious dews so generally experienced at this season has tended to enhance the evil in this section.

The wind has been generally westerly, and accompanied by a velocity exceeding the average.

Thunder or lightning occurred on eleven occasions, in some districts causing much damage to property and growing crops.—*Globe*.

PRICES OF DAIRY PRODUCTS.

The *Western Rural* reports.—

The Eastern markets for dairy products show a fair trade. Our latest advices from the dairy regions

of New York indicate a good feeling, and the quotations are well sustained. At Utica the prices realized range from 11½c to 12c; the ruling figures 11½ to 11¾c. At Little Falls the ruling figures are about the same as at Utica, though some fancy brands of prime sell at 12¼c. The market is fairly active.

The New York Western Dairymen's Association hold weekly sales at Buffalo now, having recently started. At the first sale the *Utica Herald* says that fourteen factories represented, offering about 3,000 boxes in lots of 75 to 350. The Secretary of the Association, Mr. Geo. W. Hayward, says that the opening promises success to the enterprise. The prices realized were 10½ to 11¼c.

The prices of cheese at Chicago are a little lower than they have been during the spring, and it is altogether probable that last year's rates will not be obtained this year. There are more factories in operation at the West, and the season has been very favourable. There are fully as many cheese factories in other sections of the country this year as last, while their product will hardly be decreased. It is safe to predict that the cheese product of 1871 in this country will considerably exceed that of 1870; but while there may be a slight decline, the prices will, doubtless, still be remunerative to the dairyman. It is safe to presume that the consumption of cheese will increase, nearly in the ratio that it has for the past two years, and therefore there is little probability that any drawback will overtake the cheese interest. On the part of the Western Dairyman the object should be to put the best possible article on the market, which will not only have a tendency to keep up the price, but add to the reputation they have already achieved for the excellence of Western cheese.

SEWAGE—The British Association Committee 'On the Treatment and Utilisation of Sewage,' which was reappointed at the Exeter meeting in 1869, have just published their report, in which is embodied information obtained from two hundred towns. This report may be consulted with confidence by all who wish to know which methods of drainage and sewage are most likely to answer in any particular locality, and to learn something about the results of sewage irrigation on farms. The report contains tabular statements in which all the details are given, as well as analyses of the air in drains and sewers. From the latter, it appears that the air of those places is less foul than is commonly supposed, and that bad smells are more disagreeable than harmful. And further, with a view to ascertain whether (as had been suggested) the crops of sewage-irrigated farms occasioned peculiar diseases in the animals which were fed thereon, the committee have instituted a series of experiments which will at least throw light on the question. A beginning has been made with three families of guinea-pigs, and, after a course of feeding, one member of each family was killed, and examined, and "no sign of entozoic disease of any description was found, even with the help of a powerful pocket lens, either in the viscera or muscles of any one of the specimens." In continuing the experiments, one family will be fed on sewage produce only, another on the unsewaged produce, and others are to have now and then a meal of vegetables which

do contain entozoic larva or ova. When these guinea-pigs come to be killed, examined, and compared, some definite results may be looked for, meanwhile, a chemist who has examined specimens of grass, carrots, turnips, onions, and lettuce from a sewage farm, says: 'I find nothing to report against any of them. They all seem to me in excellent order, and free from parasitic insects, or from fungi of any kind. Not the least important part of the report is that in which the committee give particulars of a sewage-irrigated farm near Romford. The crops there have proved surprisingly profitable. Onions fetched £36 an acre in the ground; spinach, £22 an acre; cabbage and cauliflowers, from £24 to £27 an acre; lettuce, £30 an acre. A new kind of American oats yielded at the rate of 14 quarters to the acre. Three crops of rye-grass were taken in one season from 5½ acres of meadow, and produce in all nearly 13 loads. Three sown with 'bunching greens,' a species of colewort, produced plants enough to plant 7 acres, and 430,000 plants and 3,240 full-grown roots for sale, the money value of which was £39 15s. From this it would appear that the most profitable use for the sewage of a town is to cause it to flow across a farm.

BOARD OF ARTS AND MANUFACTURES.

FOR THE PROVINCE OF QUEBEC.

We have been requested to insert the following circular:—

MONTREAL, JULY 1871.

Sir,—I am directed by the Board of Arts and Manufactures to inform you that an Industrial Exhibition will be held jointly with the Agricultural Exhibition, in the City of Quebec, on the 12th, 13th, 14th, and 15th of September next.

The Manufacturers of the Dominion and of other Countries are invited to send the produce of their industry for Exhibition.

Prizes to the amount of about \$5,000 are offered for the best productions.

The prize list is divided into thirteen classes as follows.

- CLASS. 1.—Cabinet and other wood work, Surgical appliances, Musical Instruments, &c.
- " 2.—Carriages, Sleighs and parts thereof, &c.
- " 3.—Machinery Castings, Manufactures of Metal Tools and Fittings, &c.
- " 4.—Building Materials, Pottery, Tiles, Slates and Slate Manufacture, Buttons, Glass-ware, &c.
- " 5.—Architectural, Mechanical and other drawings, Portraits and other Paintings, Decorative Paintings, Japanning, Sculpture, Statuary, Engraving, Lithography, Pencils, Materials used in Fine Arts &c.
- " 6.—Paper, Printing, Book Binding, Manufactures of paper, &c.
- " 7.—Leather, Manufactures of leather, Rubber goods, &c.
- " 8.—Oils, Varnish, Chemical Manufactures and preparations, &c.
- " 9.—Geology and Natural History.
- " 10.—Soap, Groceries, Provisions, Tobacco, Crackers, &c.

- " 11.—Woolen, Flax and Cotton goods, Fishing Tackle, Furs, Wearing apparel, &c.
- " 12.—Ladies' Department.
- " 13.—Domestic Manufacturers.

Competent Judges will be appointed for the different classes and the prizes awarded with the greatest impartiality.

Arrangements have been made with the different Railroad and Navigation Companies to reduce their rates of freight on articles intended for Exhibition, and all other measures have been taken to promote the interest of the Exhibition, it remains for the manufacturers to make it a success by giving it their support.

I therefore hope that you will send to this Exhibition a collection of the best articles manufactured by you, as it is important that strangers visiting the Exhibition should be favourably impressed by the quality of our different Manufactures, and to show that we compare favourably with other countries.

If you wish to have a prize list, please let me know, and I will mail it to you without delay.

I have the honor to be,

Sir,

Your most humble servant,

E. LEF. de BELLEFEUILLE,

Secretary.

15, St. Lambert Street.

PUTTING UP FENCES BY MACHINERY.

A correspondent of the *Toronto Globe* writes: "While passing a few spare days with a friend in the West, I was much amused at a novel way of putting up fence-posts. The land was rather low than otherwise, and, although soft enough in the fall, would have been very hard in dry summer weather.

"The implement employed to facilitate this business was none other than a 'pile-driver,' made as ordinarily used, with about twelve feet drop for the ram, but constructed of much lighter materials. The scantling was only 2×6 and 3×3 inches, with the exception of the sills, which were stronger, and made of hard wood, to facilitate moving about—an operation which was performed by the same oxen that raised the ram. The ram itself was composed of the butt of an oak log, six feet long, banded with iron at its lower end, to prevent splitting, and about sixteen inches in diameter. Grooves were plowed in it on each side, so as to admit of its moving readily in the guides. It was hoisted up by a yoke of catt., attached to a rope, passing under one wheel at bottom and over another at top, and the plan answered well for pulling the ram rapidly up to its elevation, from which it descended with a tremendous 'thud' on the cedar post, which was pointed and held upright, and immediately under the ram. About three blows drove the post nearly four feet into the earth, and almost all went quite straight. A few—one here and there—were crooked; but these, I was told, would be pulled straight with the catt., or dug out at the foot, so as to allow of their being pressed over, until they all came in direct line. I was informed that this course was a great saving of labor, and when quickly handled, the time that each post required to be driven was only a few

minutes. More time, however, was required to move and adjust the machine to its exact place than in doing the work. On the whole, it was considered a great success, and worked to perfection, and, I was told, saved an immense deal of labor; and, besides, it suited my friend's ideas; and others would agree with him, that 'it was better for the oxen to work at fixing the posts than himself.'

WEATHER RHYMES.

The old settlers of New England preserved some of the old English rhymes and prophecies of coming weather. Some of them are so often true as to be now considered almost infallible.

When the glow-worm lights her lamp,
Then the air is always damp.

If the cock goes crowing to bed,
He's sure to rise with a wet head.

When black snails do cross your path,
Then black clouds much moisture hath.

When the peacock loudly bawls,
Soon we'll have both rain and squalls.

When ye see the gossamer flying,
Then be sure the air is drying.

A rosy sunset presages good weather; a ruddy sunrise bad weather.

A bright yellow sky in the evening indicates wind; a pale yellow sky in the evening indicates wet.

A neutral gray color at evening is a favorable sign; in the morning, an unfavorable one.

The clouds, if soft and feathery, betoken fine weather.

A rainbow in the morning
Gives the shepherd a warning.

That is, if the wind be easterly; because it shows that the rain-cloud is approaching the observer.

If at sunrise or setting the clouds appear of a lurid red color, extending nearly to the zenith, it is a sure sign of storms and gales of wind.

If the moon shows like a silver shield,
Be not afraid to reap your field;
But if she rises haloed round,
Soon will we reap on deluged ground.

A rainbow at night is a sailor's delight.

This adage must also be a good sign, provided the wind be westerly, as it shows that the rain-clouds are passing away.

When rooks fly sporting high in air,
It shows that windy storms are near.

The evening red and the morning gray
Are certain signs of a beautiful day.

Another agricultural implement swindle is noted by the *Fergus News*. A few days ago two strangers who gave their names as Roberts and Meeke drove up to Mr. Alex. Carroll, East Garafaxa, while he was cutting a field of hay with his reaper. They represented themselves as being proprietors of an establishment where implements are manufactured on an extensive scale in the western part of the

province; said they could furnish agents with cutting bar and knives complete for a reaping machine for \$5, and that the retail price was \$15, thus leaving the handsome profit of \$10 on each sale effected. They wanted an agent in East Garafaxa, and would be happy to give the lucrative and desirable appointment to Mr. Carroll. As a guarantee of good faith in the matter they required his note (which was, he thinks, something in the shape of an order) for one hundred and fifty dollars, payable in twelve months; but which would not, they said, be then or at any other time collected unless he sold enough cutting-bars to cover the amount. The matter was talked over in the house, and on the advice of friends and neighbors Mr. Carroll signed the note for \$150! The only thing he got in return was a cutting-bar for the reaping machine, which the sharpers made him a present of, and if he ever gets anything more it will afford us unfeigned pleasure to make the fact known. Roberts and Meeke are both tall men; one is advanced in years, and has dark grey hair; the other is a young man. They drove a span of bay horses with black manes and tails. Will our brethren of the press assist us in exposing the swindlers.

At the Illinois State Fair, to be held in DuQuoin, two prizes are offered of \$250 and \$150 for steam ploughs and road engines.

An Industrial Exhibition of Manufacturers, Arts and Products, is to be held at Cincinnati during the month extending from September 6th to October 7th.

Hay is selling at \$28 to \$32 per ton in Bangor, Maine. The drought has caused a very short crop; but at present prices corn is cheaper per pound than such hay. Why don't house-keepers feed corn and straw?

The local committee of the recently Provincial Exhibition held a meeting at Kingston. It is estimated that it will take \$4,427 to place the Crystal Palace and grounds in proper order. The City Council is expected to furnish this amount.

The first purchase of the new wheat now coming in to Parkhill are of superior quality, and in excellent order. Mr. W. Shoults, our enterprising grain merchant, has already shipped two carloads of the new white of superior quality. The new crops promise to reward the farmers handsomely this year.

The crops of all kinds in the township of Missouri far exceed anything that has been in this township for many years. Fall wheat will average at least 30 bushels per acre; spring wheat, oats, barley, Indian corn, potatoes, &c., will yield a proportionate amount per acre. The fall wheat is mostly harvested and the farmers are now nearly all engaged cutting barley and hay.

Though hay is light in the county of Simcoe it is said to be of excellent quality. The *Barrie Gazette* says the fall wheat may be said to be the heaviest crop garnered for years. One field near the town will turn out forty bushels to the acre. Spring wheat and oats will turn out a light crop; but nearly everything else will be beyond the ordinary yield.

In the section around Galt the *Reporter* is sorry to learn that the apple, pear, plum and other fruit crops will almost be a failure this year. The blos-

som, which was abundant, set beautifully, and the trees in the spring gave every promise of bearing very heavily, but the continued dry weather that has visited us this summer has ruined our bright prospects, the apples, particularly, being small, full of worms, and not at all numerous.

Mr. Ruxton, of Farnell, Scotland, has sold his Clydesdale stallion "Young Richmond," the winner of the Angus Agricultural Association's prize this season, Messrs. Simon Beattie and W M Miller, Pickering, for two hundred guineas. "Young Richmond" will be shipped from Liverpool in a few weeks, along with eight other Clydesdale and Suffolk stallions, one of the Clydesdales being "Blooming Heather," a three year old colt, purchased from J. Drummond, of Blacklaws, Life, for one hundred and twenty guineas.

Some farms around London are set down at not far from forty bushels of wheat to the acre. All through Middlesex oats will be an immense crop; corn is excellent; potatoes have not been injured by the beetle; barley is good; and even hay in Middlesex will turn out a fair average crop at the least.—*Lx.*

STEAM PLOW TRIALS.—A grand trial of British steam plows took place at Wolverhampton the first week in July. It was held under the auspices of the Royal Agricultural Society, and was a well contested affair, some seven or eight machines being entered. The awards have not yet come to hand.

The *Detroit Tribune* says:—News from all parts of the States reports a splendid wheat harvest. The weather never was better; the crop is a full average and probably a little above, and was never surpassed in quality. As the breadth of the ground sown to wheat exceeds that of any previous year, it will be seen that the prospects of our farmers could scarcely be brighter. All other crops—of grain, vegetables and fruits—as a general rule, also give promise, of a most abundant return for the labours of the husbandman.

GRASSHOPPERS.—We learn from the St. Paul Press that upper Minnesota and portion of Dakota Territory are being over run by countless millions of grasshoppers. They seem to come from the southern plains and are pursuing a northern course, and have already reached the British possessions. The crops on some of the forest lands in the state of Minnesota have already been destroyed. The farmers along the course of these devouring insects are dismayed and discouraged.

SWINE EXHIBITION.—The exhibition of swine, to be held in Chicago, under the auspices of the Illinois Swine Breeders Association is definitely fixed for the 19th, 20th, and 21st of September, and is confidently expected to be the largest and best show of this class of stock yet seen on this continent. The competition is open to all, and the prizes are on a very liberal scale, from a sweepstake of \$1,000 to \$15, the lowest premium offered. Intending exhibitors or visitors can obtain all requisite information by applying to the Secretary of the Association, Charles Sواد, Joliet Illinois. See advertisement.

SWEDISH BUTLER.—A joint stock company, most of whose shareholders are substantial and practical Swedish farmers, well acquainted with the dairy trade, has been formed in the Province of

East Gothland for the purpose of making butter on an extensive scale, for exportation. They have received so much encouragement that they are already able to produce 1,000 lbs. per day. Some sample furkins of the company's butter have been shipped as a trial to London, Hull, and other English ports, where, we understand, the quality has given great satisfaction, and will probably lead to a regular and lucrative trade in this new article of Swedish industry between the two countries.

AGRICULTURAL EXHIBITIONS FOR 1870.

CANADA.

Dundas	Dundas	Sept. 19-20.
Brockville & Elizabeth-	town	Unionville
HURON (NORTH)	Clinton	Sept. 19-20.
TORONTO	Toronto	Sept. 19-21.
HURON (SOUTH)	Seaforth	Sept. 21-22.
OXFORD (SOUTH)	Ingersoll	Sept. 21-22.
Cheese Fair	Ingersoll	Sept. 21-22.
Blandford	Plattsville	Sept. 22.
Vespra	Midhurst	Sept. 22.
PROVINCIAL	Kingston	Sept. 24-29.
WESTERN UNION	London	Sept. 26-29.
WELLINGTON N	Harriston	Sept. 27.
McNab	Balmer's Island	Sept. 27.
Procton	Ronaldsay	Sept. 29.
Saltfleet & Binbrook	Stoney Creek	Sept. 29.
Southwold & Dunwich	Iona	Sept. 29.
Stephen & Osborne	Exeter	Oct. 2-3.
REXFREW (SOUTH)	Rexfrew	Oct. 3.
Fast Wawanosh	Wawanosh	Oct. 3.
Mernington	Milverton	Oct. 3.
Wallace and Elma	Listowell	Oct. 3.
BRANT (NORTH)	Paris	Oct. 3-4.
PERTH (SOUTH)	St. Mary's	Oct. 3-4.
WATERLOO (SOUTH)	Galt	Oct. 3-4.
Elma	Newry	Oct. 4.
Turnley	Wingham	Oct. 4.
CENTRAL FAIR	Hamilton	Oct. 4-6.
Howard	Ridgetown	Oct. 5.
Mara	Oct. 5.
BRANT (SOUTH)	Brantford	Oct. 5-6.
KENT	Chatham	Oct. 5-6.
PERTH (NORTH)	Stratford	Oct. 5-6.
WATERLOO	Waterloo	Oct. 5-6.
Barton & Glanford	Glanford	Oct. 10.
Harwich	Blenheim	Oct. 10.
Hibbert	Staffa	Oct. 10.
OXFORD (NORTH)	Woodstock	Oct. 10-11.
WELLINGTON CEN.	Guelph	Oct. 10-12.
DURHAM & HOPE	Port Hope	Oct. 12-13.
Esquesing	Georgetown	Oct. 13.
Otonabee	Kecene	Oct. 13.
NORTHUMBERLAND (West)	Cobourg	Oct. 17-18.

UNITED STATES.

NEW ENGLAND	Lowell	Sept. 5-8.
AM. POMOLOGICAL	Richmond, Va.	Sept. 6-8.
CINCINNATI INDUSTRIAL	Cincinnati	Sept. 6-Oct. 7.
OHIO (NORTHERN)	Cleveland	Sept. 12-1.
SWINE EXHIBITION	Chicago	Sept. 19-21.
OHIO (CENTRAL)	Mechanicsburgh	Sept. 19-21.
WISCONSIN	Milwaukee	Sept. 25-29.
NEW YORK	Albany	Oct. 2-6.
MICHIGAN (CENTRAL)	Lansing	Oct. 3-5.

ENGLISH SPARROWS.

The New York Farmer's Club recently had a talk about these birds, which were brought over from England to New York a few years since, and which appear to be spreading rapidly in all directions; having already been seen twenty miles from the city. Mr. Andrew Fuller, said that two pair put on his place had driven all other birds away. He did not think the sparrows were entitled to the credit they generally received of causing the disappearance of the span worms from the trees in the city, but said, "in truth, they had nothing at all to do with the disappearance of the worm, that being affected by the ichneumon fly." Several gentlemen having stated that the sparrows did devour worms, to their certain knowledge, Mr. P. T. Quinn said:—

There is no doubt in my mind but that they will feed upon the insects when they can get nothing else to eat, but they will also become very destructive and injurious to the fruit grower in the country. There is a great deal of sentiment about birds. I know that some of them are the allies of the fruit grower, but I was born where the sparrows were pests in the worse sense of the term; where they not only eat the fruit, which we would be willing to forgive, but they fed also on the blossoms, and so the subject comes up whether that variety of bird will greatly benefit the fruit-grower. I have a neighbor, and he called me into his fruit garden and showed me the blossoms of his trees all picked off; he said that he had not seen any sparrows around, but his place is only a stone's throw from mine, and we had had quantities of them, and there was no doubt but that the sparrow was the depredator. If he would only eat the ripe fruit, I would say let him have it, as much as he can eat, but when he eats the buds, then he is an injury, and I fear that we shall regret that they ever passed out of the city.

DIFFERENCE IN EGGS.—*The Germantown Telegraph* well says, there is a vast difference in the flavor of eggs. Hens fed on clean, sound grain and kept on a clean grass run, give much finer flavored eggs than hens that have access to stables and manure heaps and eat all kinds of filthy food. Hens feeding on fish or onions flavor their eggs accordingly—the same as cows eating onions or cabages, or drinking offensive water, impart a bad taste to the milk and butter. The richer the food the higher the color of the egg. Wheat and corn give the best color, while feeding on buckwheat makes the eggs colorless, rendering them unfit for some confectionary purposes.

STEAM ENGINES FOR COMMON ROADS.—Lord Dunmore says the *Irish Farmers' Gazette*, has introduced a Bill into the House of Lords to remove the restrictions imposed by the Act of 1865 on the use of steam engines on the common roads, and to revert to the more liberal Act of 1861. It is stated that goods can now be regularly carried by means of Thomson's road steamers at less than half the cost of horses, and both the manufacturing and railway interest of the country (the latter being involved to the extent to which the road steamers could be introduced as feeders) demand at least the removal of such regulations as can be shown to be useless and mischievous. In nearly all parts of the world these steamers are attracting attention, as affording a

solution of the main difficulty of conducting an inexpensive traffic.

The piscatorial interests of the Eastern states owe much to the labor and intelligence of Mr. Seth Green. Indeed to him more than to any one else is due what has been done in this country toward the artificial propagation of fish, and the re-stocking streams from which they had been almost exterminated. Mr. Green lately undertook the delicate task, at the invitation of the Fish Commissioners of California, of transporting young shad from the Hudson river to the Sacramento, none of this species have been found west of the Rocky mountains. Mr. G. was aware of the difficulty in the case. He knew that the fish must be taken on the day of hatching so as to have its four days of natural food attached, while it would take six or seven to make the trip. He knew that water taken at different points on the route would differ greatly in quality, and in many instances be fatal to the fish. He started on the 19th of June with 20,000 young shad in six tin cans, containing about ten gallons each. On Monday the 26th, he arrived at Sacramento City with 90 per cent. of his stock alive. He then went 170 miles down the river to where the water seemed more favourable, and deposited his charge. The young fellows struck out nobly for exercise and refreshments, and there is little doubt but the new home will be found exceedingly well adapted to them. Who knows but that in a few years these delicious fish will grace Chicago tables instead of the somewhat inferior salmon that California now sends us.

Our Country.

CANADIAN LIFE IN FORMER DAYS.

[From Dr. Canniff's Settlement of Canada.]

The summer of 1789 brought relief to most of the settlers—the harvest of the weight of woe was removed. But, for nearly a decade, they enjoyed but few comforts, and were often without the necessaries of life. The days of the toiling pioneer were numbering up rapidly yet the wants of all were not relieved. Those whose industry had enabled them to sow a quantity of grain reaped a goodly reward. The soil was very fruitful. and subsequently, for two or three years, repeated crops were raised from a single sowing. But flour alone, although necessary to sustain life, could hardly satisfy the cravings of hunger with those who had been accustomed to a different mode of living. It was a long way to Montreal or Albany, from which to transport by hand everything required, even when it could be had, and the settler had something to exchange for such articles, besides the journey of several weeks. Game, occasionally to be had, was not available at all times, although running wild, ammunition was scarce, and some had none. We have stated that Government gave to every five families a musket and forty-eight rounds of ammunition, with some powder and shot, also some twine to make fishing nets. Beef, mutton, &c., were unknown for many a day. Strangely enough, a circumstantial account of the first beef slaughtered along the Bay, probably in Upper Canada, is supplied by one who, now in the 90th

year, bears a distinct recollection of the event. It was at Adolphustown. A few settlers had imported oxen to use in clearing the land. One of a yoke was killed by the falling of a tree. The remaining animal, now useless, was purchased by a farmer upon the front, who converted it into beef. With the hospitality characteristic of the times, the neighbors were invited to a grand entertainment, and the neighborhood, be it remembered, extended for thirty or forty miles. A treat it was this taste of an article of diet, long unknown.

The same person tells of the occasion when the first log barn was raised in Adolphustown, it was during the scarce period. The "bee" which was called had to be entertained in some way. But there was no provision. The old lady, then a girl, saw her mother for weeks previous carefully putting away the eggs, which a few hens had contributed to their comfort; upon the morning of the barn raising, they were brought forth and found to amount to a painful, well heaped. The most of the better-to-do settlers always had rum, which was a far different article from that sold now-a-days. With rum and eggs well beaten, and mixed with all the milk that could be kept sweet from the last few milkings; this, which was both food and drink, was distributed to the members of the bee, during the time of raising the barn.

Tea, now considered an indispensable luxury by every family, was quite beyond the reach of all, for a long time; because of its scarcity and high price. Persons are yet living who remember when tea was first brought into family use. Various substitutes for tea was used—among these were hemlock and sassafras; there was also a plant gathered called by them the tea plant.

Sheriff Sherwood, in his most valuable memoirs, specially prepared for the writer, remarks: "Many incidents and occurrences took place during the early settlements which would, perhaps, at a future day, be thought incredible. I remember seeing pigeons flying in such numbers that they almost darkened the sky, and so low often as to be knocked down with poles; I saw where a near neighbor killed thirty at one shot, I almost saw the shot, and saw the pigeons after they were shot." Ducks were so thick that when raising from a marsh "they made a noise like the roar of heavy thunder." "While many difficulties were encountered, yet we realized many advantages, we were always supplied with venison, partridge, and pigeon, and fish in abundance, no taxes to pay and plenty of wood at our doors. Although deprived of many kinds of fruit, we had the natural production of the country strawberries, raspberries, gooseberries, blackberries, and lots of red plumbs, and cranberries in the various marshes all about the country, and I can assure you that pumpkin and cranberries make an excellent substitute for apple pie." Mr. Sherwood refers to their dog "Tipler," which was invaluable, in various ways, in assisting to procure the food. He also speaks of "Providential" assistance. "After the first year we raised wheat and Indian corn sufficient for one year's supply for the family; but then we had no grist mill to grind it; we made out to get on with the Indian corn very well by pounding it in the mortar, and made what we called samp, which made coarse bread, and what the Dutch called sup-pawn; but let me tell you how we made our mortar. We cut a log off a large tree, say two and a half feet through and about six feet long;

which we planted firm in the ground, about four feet deep, then carefully burnt the center of the top and scraped it out clean, which gave us a large mortar. We generally selected an iron wood tree, from six to eight inches through, took the bark off clean, made a handle to it of suitable length, this was our pestal: and many a time I have pounded with it till the sweat ran down merrily. But this pounding would not do for the wheat, and the Government seeing the difficulty, built a mill back of Kingston, where the inhabitants, for fifteen miles below Brockville had to get their grinding done. In our neighborhood they got on very well in summer, by joining two wooden canoes together. Three persons would unite, to carry each a grist in their canoes, and would perform the journey in about a week. But in winter this could not be done. After a few years, however, when some had obtained horses, then a kind Providence furnished a road on the ice for some years until a road was made passable for sleighs by land. And it has not been practicable, indeed I may say possible, for horses with loaded sleighs to go on the ice from Brockville to Kingston, fifty years past."

Roger Bates says that "the woods were filled with deer, bears, wolves, martins, squirrels, and rabbits." No doubt, at first, before fire-arms were feared by them, they were plentiful and tame. Even wild geese, it would seem were very often easily shot. But powder and shot were expensive, and unless good execution could be made, the charge was reserved. Mr. Sherwood gives a trustworthy account of the shooting of thirty pigeons at one shot; and another account is furnished, of Jacob Parliament, of Sophiasburgh, who killed and wounded at a single shot, four wild geese and five ducks. These wild fowl not only afforded luxurious and nutritious diet, but their feathers were saved, and in time pillows and even beds were thus made. Mr. John Parrot says, "there were bears, wolves, and deer in great abundance, and there were lynx, wild cats, beavers and foxes in every direction; also martins, minks and weasels beyond calculation. In this connection we may record a fact related by Col. Clark, respecting the migration of squirrels in the early part of the present century across the Niagara River, from the States. He says, "an immense immigration of squirrels took place and so numerous were they that the people stood with stick to destroy them, as they landed on the British shore, which by many was considered a breach of good faith on the part of John Bull, who is always ready to grant an asylum to fugitives of whatever nation they may belong to.

In the great wilderness were to be had a few comforts and luxuries. Sugar is not only a luxury, but is really a necessary article of food. The properties of the sap of the maple was understood by the Indians, and the French soon availed themselves of the means of making sugar. To the present day the French Canadians make it in considerable quantities. At first the settlers of Upper Canada did not generally engage in making it; but after a time a larger number did. The maple, the monarch of the Canadian forest, whose leaf is the emblem of our country was a kind benefactor. In the spring in the first days of genial sunshine, active operations for sugar making were commenced. Through the deep snow, the farmer and his sons would trudge, from tree to tree, to tap them upon their sunny side. The "spile" would be inserted to conduct the pre-

cious fluid into the trough of bass wood, which had been fashioned during the long winter evenings. A boiling place would be arranged, with a long pole for a crane, upon which would be strung the largest kettles that could be procured. At night the sap would be gathered from the troughs, a toilsome job, and put into barrels. In the morning a curling smoke would arise from amidst the thick woods, and the dry wood would crackle cheerily under the row of kettles all the sunny day spring day; and night would show a rich dark syrup, collected in the smaller kettle, for the more careful work of being converted into sugar. Frequently the fire would be attended by women and the men would come to gather the sap in the evening. In this way many a family would be provided with abundant sugar, at all events it had to serve them for the year, as they felt unable to purchase from the merchant. In another place, we have related how a few made a considerable quantity of sugar and sold it, to pay for a farm, doing without themselves.

The absence of various articles of food, led the thoughtful housewife to invent new dishes. The nature of these would depend in part upon the articles of food most abundant, and upon the habits peculiar to their ancestry, whether English, Dutch, or some other. The great desire was, to make a common article as tasty as possible. And at harvest time as well as at bees, the faithful wife would endeavor to prepare something extra to regale the tired ones. There was for instance the "pumpkin loaf," a common dish. It consisted of pumpkin and corn meal made into a small loaf, and eaten with butter. Another dish which seems to have been derived from the Dutch was Pot Pie, which was always, and is even yet in many places, made to feed the hands at bees and raisings, and even was generally made to grace the board on a wedding occasion. We cannot give the space, if we felt prepared to speak, of the several made dishes commonly in use among the older Canadians of Upper Canada. Many of them are truly excellent in taste and nutritious in quality. They are often similar to, or very like the dishes in the New England and Midland States.

A GOOD WORD FOR THE BATS.

We find in a recent number of *Appleton's Journal* the following, by Professor Schele de Vere, on bats. He says:

"Among the prejudices cherished by the masses against harmless animals, few are stronger than that felt almost universally against bats, arising probably from the simple fact that they are children of the night and forced to carry on their search after food in the darkness. It may, however, that their peculiar hideousness has given additional strength to this feeling, for the Jews legislation already declared them unclean and accursed, and the Greeks borrowed their wings for the harpies, as Christians have done for the devil. A poor, lost bat need but fly into a room filled with company, and every body is frightened. Superstitious people tremble at their mere presence as an evil omen, and the strong minded among the fair excuse their terror by a pretended fear for their hair—an apprehension which could be well founded only if the accounts of insects being harbored in their chignons should be verified. It is true these children of darkness are neither fair

in form nor amiable in temper. The naked, black skin of their wings, stretched out between enormously lengthened fingers, like the silk of an umbrella between the whalebone of the frame; the ugly claws of their hind feet; the bare appendages which frequently adorn their noses and ears in a most eccentric manner; and their perfectly noiseless, almost mysterious flight by touch, and not by sight—all these peculiarities combine to make them unwelcome guest among men.

"And yet they are real public benefactors. When the first warm sun of spring arouses them from their long winter sleep, which they enjoy hanging by their hind feet, head down, and the whole body carefully wrapped up in the wide cloak of their wings, they begin their night hunts. A dozen fat beetles hardly suffice for the supper of a hungry member of one variety, and sixty to seventy house-flies for one of another kind. All night long they pursue with indefatigable energy every variety of beetle and moth, of fly and buff, and enjoy most of all these which do the greatest injury to our fruit-trees and cereals. Even the only really formidable member of their race, the vampire, is much maligned; a gigantic bat, accused of sucking the blood of man and beast, it is strictly confined to a small district in the tropics, and even there occurs but rarely."

MONTREAL OCEAN STEAMSHIP COMPANY.

With the commerce of Canada and the yearly increasing trade of this city, the Messrs. Allans' lines of steamers and clipper ships have been intimately associated, and have progressed and prospered to an extent that excites the admiration of the whole Dominion. The above firm are now, we believe, the most extensive steamship owners in the world, not even excepting the Inman or Cunard Companies, in ocean steamers.

Within the past forty years immense progress has been made in the improvement of the navigation of the St. Lawrence. In 1831 Lake St. Peter was but eleven feet deep at low water. After ten years' discussion—that is in 1841—the Board of works commenced operations to improve the channel, and carried them on with occasional interruptions for some twelve or fifteen years, until a depth of eighteen feet at low water was reached, which, we believe is about the present capacity of the channel, though subsequent dredgings may have slightly improved it. This increase in the navigable capacity of the river up to Montreal created a demand for a superior class of vessels, and the Canadian Government entered into contract in 1852 with a firm mainly composed of Liverpool and Glasgow shippers, by which a subsidy was to have been paid to them for a fortnightly mail by steamship from Liverpool. The service which was imperfectly rendered, and the contract was terminated some eighteen months after its commencement, the ships of the company finding more profitable employment in the transport service of the British Government, then entering upon the Crimean war. Before this date Messrs. Allan, of this city, in conjunction with their brothers in Glasgow, and Mr. Bryce Allan of Liverpool, had contracted for the construction of two steamships on the Clyde for employment in the Canadian trade. The first of these vessels, the "Canadian," made her first trip to Canada in the

fall of 1864, and during the following winter traded between New York and the British ports. The following spring the "Canada," and the other vessel then just finished—the "Indian"—were chartered by the British Government for the same urgent Crimean transport service. In which they continued until the close of the Russian war, doubtless to the no small profit of their owners. Meantime two other steamships were constructed by the Messrs. Allan, and they entered into contract with the Canadian Government for a fortnightly mail service during summer between Montreal and Liverpool, and once a month during winter from Portland. This was the fair and full beginning of the now well-known "Allan line," commencing in the spring of 1866. Three years later, a new contract was made, whereby the service was changed into a weekly one, both summer and winter. That contract expired by afflux of time, but was renewed not long ago for another term of years. During these years the Messrs. Allan kept adding steamer after steamer to their splendid fleet. Though they met with many melancholy and—as they were and are their own insurers—most costly disasters, they persevered unremittingly until at length the early difficulties have not only disappeared, but are almost forgotten.

In 1860 the firm started a line of trading steamers between Montreal and the Clyde, and this has prospered like the other. It has now become a regular weekly line, doing a heavy and no doubt a profitable business.

This company are also cultivating a carrying trade between Baltimore and England—already a regular monthly line has been established; and are also carrying the mails between Halifax and Great Britain.

During the past season the Allan steamers made seventy-two voyages between Great Britain and Canada, and their sailing craft thirty-three, on the same route. These vessels brought 2,234 cabin and 24,285 steerage passengers, and 125,861 tons of freight. They took from Canada 1,823 cabin and 2,164 steerage passengers, besides cargo equivalent to 1,650,975 barrels flour. The management of such an immense business requires not only great care at the head office, but the most exact discipline and the most complete appointments throughout all departments. To meet these requirements the Messrs. Allan have the most ample arrangements. A fleet of tug-steamers and lighters for river service; out-fitting and repairing establishments at Liverpool, &c. Their employees number about five thousand men, so that on the ordinary computation their business may be said to give direct support to 25,000 human beings. This is exclusive to the large bodies of workmen almost constantly employed in the construction of their new vessels, the parties engaged in furnishing supplies, &c. These facts speak more eloquently than words of the vast importance to Canada of the enterprise, energy and business talent of the proprietors of the "Allan line."
—*Montreal Witness*.

RUNNING THE RAPIDS.—We published a few days since a letter written by a New England Press excursionist to the *New York Tribune*, in which occurred:—"To my mind the first man who ever took a steamboat down the Lachine Rapids is worthy of a monument greater than that to the one who swal-

lowed the first oyster. I believe history records the first man was an Indian, and until recently he was the sole pilot of the rapids." We are now in a position to state who was the first man to whom the honor of taking the first steamboat down the rapids is due, and it gives us pleasure to inform our readers that being still in the flesh he does not care at present to have that monument erected of which the correspondent above alluded to thinks he is deserving. In August, 184—nearly thirty years ago—it was deemed desirable to transfer the steamboat Ontario, owned by Mr. John Hamilton, from the Upper St. Lawrence to the section between Montreal and Quebec, and Captain L. Hilliard offered to take her down from Prescott where she was then lying, to Montreal. Captain Hilliard had been prior to 1831 a boatman on the St. Lawrence and had become acquainted with all the channels of the rapids, which he had frequently navigated on rafts.

Previous to making the experiment of running the rapids with his steamboat he took soundings to discover whether there was water enough to carry her through. These soundings could only be taken from rafts, nor would the currents admit of the usual lead and line. Captain Hilliard prepared a number of withes of various lengths, and sharpened at one end to so fine a point that the latter would be broken up on the slightest contact with the river bed, then these were attached to the rafts which were to be used in taking soundings. After making the passage it was found that all the withes up to six feet in length were free from breaks or bruises, while those that extended to a greater depth were bent and broken, showing that there was at least six feet of water in all parts of the channel. After satisfying himself of this fact, Captain Hill made the trip on the Ontario, and in due time arrived in Montreal. For this Mr. Hamilton presented him with a handsome gold watch, which bears on the inner case the following inscription:—"Presented to Captain L. Hilliard by John Hamilton, to commemorate the safe arrival of the steamboat Ontario at Montreal from Prescott, U. C. being the first descent over the rapids of the St. Lawrence by steam, 19th, August, 1840." This watch is still in possession of the Captain, who is at present in Toronto, and by whom it was shown to us yesterday.
—*Toronto Telegraph*.

Hearth and Home.

AMUSEMENTS AND EXERCISE.

What shall we do with our leisure hours? How shall we get necessary out-door exercise? Where-withal shall we be amused? are questions always pertinent, because never fully answered. We resort to a game which finds favor with the people, and we say in our haste that this shall be our national sport and we will adopt it and perfect it and get health by it and by it while away the tedium of our idle hours, when lo, the experts at that game improve it and practice so much at it that common people are ashamed to be seen playing at it lest opprobrious epithets be cast at them because of their incapacity; or the innocent, pleasant game is made

so scientific and so difficult and is so hedged in by rules that none but professionals or athletes can endure the violent exercise; or blackguards and betting men get hold of it and make it disreputable and so game after game is lost and the plaintive iteration still goes up incessantly for popular and easy and interesting out-door amusements.

Bowls is the game which meets almost all of the requirements of a popular pastime, but it seems difficult to popularize it in Canada; billiards, the finest parlor game ever invented, has entirely lost its character through the society of drink and the patronage of gamblers; cricket seems to flourish only among Englishmen, but with them it will always be popular and possesses the advantage that it may be played till quite an advanced period of life; base-ball is rather too violent an exercise to be very popular, while the conduct of the professional players in the United States has cast a taint upon it anything but favorable to its character; while the charge of too much violence is still more justly brought against the otherwise excellent game of lacrosse. Still another objection lies against all these amusements except billiards—that they are suited to males only. There is no evidence that it is good for men to be alone in their diversions any more than in the other incidents and avocations of life.

There are just two amusements left, which seem to provide necessary exercise, sufficient interest to make them enjoyable, and perfect innocence. Many of our readers will doubtless smile when we mention the game of croquet. It has been fashionable of late to laugh at it, to call it a child's game, and to assert that it has been almost entirely discontinued. These objections are, for the most part, urged by people for whom croquet is "too slow." Let them, then, fly to "exciting" sports: let them seek such amusements as suit their more ardent temperaments; but permit us still to offer a word in defense of the slow and simple game of croquet. It is easily learned, and affords just enough exercise to promote health without involving strained muscles or bruised limbs; it brings the sexes into pleasant association and if children sometimes join in the game, who shall say that the society of women and children will do a man serious harm? We have already indicated the alternative left for those who cannot endure the innocence or the weakness of their mothers, their sisters, or their children.

Another amusement we are loth to pass unpraised is boating. Considerable opposition has been raised to water sports in consequence of unfortunate accidents which have occurred. While it is too evident that this pleasant amusement will never be entirely freed from a trifling danger, we still think that danger has been very much overrated. If pro-

per precautions are taken, and people do not undertake more than they know how to perform, accidents will be rare indeed. No exercise is more conducive to health than rowing; and sailing, under proper precautions, may be made as safe as carriage-driving.

ORDER IN THE HOUSEHOLD.

System and order must be strictly observed in all household arrangements. "A place for every thing, and everything in its place." There should be a time for certain duties, and the housekeeper must see that there is no infringement of the laws that are laid down. Children cannot too soon be taught the importance of order, neatness, and economy. A habit of system may be early formed, and prove a blessing through life. An ill-governed household, where there is neither system, order, neatness, nor frugality, is a bad school for children.

Never leave things lying about—a shawl here, a pair of slippers there, a bonnet somewhere else, trusting to a servant to put them in place. No matter how many servants you have, it is a miserable habit. If you set an example for carelessness, do not blame your servants for following it. Children should be taught to put things back in their places as soon as they are old enough to use them, and if each member of a family were to observe this simple rule, the house would never get much out of order.

INDUSTRY LENGTHENS LIFE.

Dr. Guy, an Englishman, in calculating the average duration of life of the wealthy classes, arrived at the very surprising result, with regard to adults, that the higher their position in the social scale, the more unlimited their means, the less also the probability of a long life. We have been so long accustomed to consider the possession of riches as the best guarantee of physical welfare, that many will be surprised to hear from Guy that "the probability of the duration of life lessens, with regard to the adults in each class of the population, in the same degree as the beneficial impulse for occupation is lacking. If a person who for a long time has lived an active life retires from business, it may be taken for granted, with a probability of ten to one, that he has seized the most effective means to shorten his life."

GOOD WASH FOR THE TEETH—Dissolve two ounces of borax in three pints of boiling water, and before it is cold add one teaspoonful of spirits of camphor, and bottle for use. A tablespoonful of this mixture, mixed with an equal quantity of tepid water, and applied daily with a soft brush, preserves and beautifies the teeth, extirpates all tartarous adhesion, arrests decay, induces a healthy action of the gums, and makes them look pearly white.

HOW TO PRESERVE THE HAIR.—The best way to preserve it is to wash the scalp often and thoroughly with water, drying with a towel. Oils, pomades, etc., clog the pores of the scalp and prevent the healthy growth of the hair. Keep the head well ventilated; if the hat is close, raise it often and let it in the fresh air; never wear the hat indoors. The

ladies, notwithstanding they wear long hair, (which is more likely to fall out,) seldom are bald-headed. Their heads are not kept closely covered. In sleeping, do not cover the head with a night-cap.

Arts and Manufactures.

STONE CEMENT.

Hydrated silica combines much easier with bases than common quartz-sand, (anhydrous silica) On this Professor Boettger has based the employment of infusorial earth, a white pulverulent mass, which occurs in various localities in Europe and in this country, in large masses, as the binding ingredient of an excellent cement for stone-work. He mixes equal parts of infusorial earth and oxide of lead (litharge) with one half the quantity of hydrate of calcia (freshly slacked lime) and linseed-oil varnish to a homogeneously thick paste, and obtains a mass of extraordinarily great binding power, which after some time assumes the hardness of common sandstone. This cement is applicable in all cases where iron is to be fastened in stone, where artistic stone-work, such as fountains, vases, statuary, etc., is to be mended; in short, where small quantities of the binding material are required. For the more common uses of the mason and stone-cutter, this cement is, of course, too dear to permit of extended application.

COLORED CEMENTS.

A writer in *Comptes Rendus* states that colored cements which harden rapidly may be made as follows: He takes a solution of silicate of soda (sp. gr., 1.298) and adds to it while stirring, first pulverized and previously washed, lixiviated chalk, so as to form a thick mass, like butter, to which are for coloring purposes, the following substances: Finely pulverized sulphuret of antimony for black, iron filings for grey, zinc dust for whitish gray, carbonate of copper for bright green, oxide of chromium for deep green, cobalt blue for blue, red lead for orange, vermilion for bright red, and carmine for violet hue. This cement hardens within from six to eight hours, and may afterward be polished, becoming like marble.

THE SUNBEAM.—The following is from the *British Quarterly Review*: The greatest of physical paradoxes is the sunbeam. It is the most potent and and versatile force we have, and yet it behaves itself like the gentlest and most accommodating. Nothing can fall more softly or more silently upon the earth than the rays of our great luminary—not even the feathery flakes of snow, which thread their way through the atmosphere as if they were too flimsy to yield to the demands of gravity, like grosser things. The most delicate slip of gold-leaf, exposed as a target to the sun's shafts, is not stirred to the extent of a hair, though an infant's faintest breath would set it into tremulous motion. The tenderness of human organs—the apple of the eye—though pierced and buffeted each day by thousands of sunbeams, suffer no pain during the process, but rejoices in their sweetness and blesses the useful light. Yet a few of those rays, insinua-

ting themselves into a mass of iron, like the Britannia Tubular Bridge, will compel the closely-knit particles to separate, and will move the whole enormous fabric with as much ease as a giant would stir a straw. The play of those beams upon our sheets of water lifts up layer after layer into the atmosphere, and hoists whole rivers from their beds, only to drop them again in snows upon the hills, or in fattening showers upon the plains. Let but the air drink in a little more sunshine at one place than another, and out of it springs the tempests or the hurricane which desolates a whole region in its lunatic wrath. The marvel is that a power which is capable of assuming such diversity of forms, and of producing such stupendous results, should come to us in so gentle, so peaceful and so unpretentious a guise.

TO MAKE MATS FROM SHEEPSKINS.

A fresh skin is more easily prepared than one a little dry. A strong soap-suds is used to wash the wool, first letting the water cool so as to be slightly warm to the hand. In the mean time pick out all the dirt from the wool that will come out; then scrub it well on the washboard. A table-spoonful of kerosene added to three gallons of warm suds will greatly help the cleansing process. Wash in another suds, or until the wool looks white and clean. Then put the skin into cold water enough to cover it, and dissolve half a pound of salt and the same quantity of alum in three pints of boiling water; pour the mixture over the skin, and rinse it up and down in the water. Let it soak in the water twelve hours; then hang it over a fence or a line to drain. When well drained, stretch it on a board to dry, or nail it on the wall of the wood-house or barn, wool side towards the boards. When nearly dry, rub into the skin one ounce of powdered alum and saltpetre, (if the skin is large double the quantity); rub this in for an hour or so. To do this readily, the skin must be taken down and spread on a table or flat surface. Fold the skin sides together and hang the mat away. Rub it every day for three days, or till perfectly dry. Scrape off the skin with a stick or a blunt knife till cleared of all impurities; then rub it with pumice-stone, or, if more easily procured, rotten-stone will do. Trim it to a good shape, and you have an excellent door-mat. Any intelligent housewife can dye it green, blue, or scarlet with the so-called "Family Dyes," either in powder or liquid and she will have as elegant a door mat as she could desire.

Lamb's skins can be similarly prepared and made into caps and mittens. Dyed a handsome brown or or black, they equal imported skins. Still-born lambs, or those that die very young, furnish very soft skins, which if properly prepared would make as handsome sacks, muffins and tippets as the famous Astrachan. Any former's daughter could easily prepare skins enough to furnish herself with a handsome suit.—*Mechanic and Inventor*.

MATERIAL FOR ICE HOUSES.—It is said that one of the best materials for ice houses is peat: but the genuine moss peat must be employed, and it ought to be cut in pieces fourteen inches long and five to six inches wide and thick. When it is thoroughly dried to prove to be a poor conductor of heat, and when lain up around ice houses above the ground, is preferred by many persons to sawdust, tan bark, and the like.

HOW TO KEEP ICE.—A very simple way to keep small quantities of ice, which is given by a German chemist, is to put ice into a deep dish, cover it with a plate, and place the dish on a pillow stuffed with feathers [then feathers will answer], and carefully cover the top with another pillow, thus excluding the external air. Feathers are well-known non-conductors of heat, and thus ice is preserved from melting. Dr. Schwartz says he has thus kept six pounds of ice eight hours. This simple plan is within the reach of every household.

DAMP PROOF MUCILAGE FOR LABELS.—The *Archives of Pharmacy* gives the following recipe: Macerate five parts of good glue in eighteen to twenty parts of water for a day, and to the liquid add nine parts of rock candy and three parts of gum arabic. The mixture can be brushed upon paper while lukewarm; it keeps well, does not stick together, and when moistened, adheres firmly to bottles. For the labels of soda or saltzer water bottles, it is well to prepare a paste of good rye flour and glue, to which linseed oil varnish and turpentine have been added, in the proportion of half an ounce each to the pound. Labels prepared in the latter do not fall off in damp cellars.

Poetry.

PRIZE POEM "ON THE BEE."

A \$40 prize was offered some months ago by the proprietor of the *Bee Keeper's Journal* published in New York, for the best poem on "The Bee," or "Bee Culture." This prize has just been awarded, and the following paragraph which we copy from the last number of the periodical above mentioned will no doubt interest many of our readers. The poem itself will be found subjoined.

"The decision of the committee on Prize Poems, awards the prize to the Rev. W. F. Clarke, editor of the *ONTARIO FARMER*, Canada. Some fifteen or twenty poems out of the forty competing, were deemed worthy of publication. The Committee consisted of Rev. E. Van Slyke, of West Farms, N. Y., J. T. Mapes, Esq., of Elmira, N. Y., and Miss Mary E. Ervine, of Linden, N. Y. The poems were in the hands of the committee for nearly a month, and the decision was made after deliberate examination, and this on the merits alone, as no names or addresses were given the Committee."

THE BEE.

BY THE REV. W. F. CLARKE.

Where in the realm of nature do we see,
A worthier study than the honey-bee?
What curious instinct dictates every art,
Whereby this little creature sets its part?
How do the marvels of the hive combine,
All other insect wonders to outshine!

A swift-winged forager, the bee sets forth,
Scouting from east to west, from south to north.
Intent on gathering, with industrious haste,
Sweetness that else upon the earth would waste;
And, whereso'er the wanderer may roam,
Laden, she flies unerring to her home.

A skillful manufacturer, she makes
By some internal process, pearly wax,
A substance plastic, soft and delicate,

Beyond the power of man to imitate,
Suited to house the growing luscious brood,
Or to encase the store of luscious food.

The bee is mathematical, and well
Illustrates Euclid in her form of cell.
Sir Isaac Newton, Simpson, or Legendre,
To none of these great masters need we send her,
For she has found what they could never see,
A "royal highway" to geometry.

The bee's a warrior bold, and never saw
The foe could make her from the field withdraw,
In single combat, or in army fight,
No bee has ever shown the feather white:
"Ready, eye ready," any time to rally,
And at any moment's notice, forth to sally,

The bee's a model citizen—ease, too,
Life, all is yielded to the public good;
No individual interests weigh a grain,
Where there are public interests to maintain;
As in old Rome, when all were for the State,
Rich helped the poor, and poor men loved the great.

The bee, in ages past, was little known
In characters of worker, queen and drone;
Absurdest theories and superstitions,
Usurped the place of rational positions,
And, while a dozen bees remained alive,
No man durst search the mysteries of the hive.

Each autumn, when the tempting store of honey
Excited appetite or love of money,
The faithful workers forfeited their lives,
That man might get the contents of the hives;
A tragic finish to the busy season,
For which necessity was made the reason.

Now, thanks to science and its handmaid, art,
The apiculturist acts a wiser part;
The comb is built upon the moving frame,
With smoke or sweet the fiery bee we tame,
Control the busy inmates of the hive,
Obtain their stores, yet save them all alive.

The brisk Italian now assumes the place
Of the familiar, black, old-fashioned race,
Nimble, more energetic, more prolific,
And, happily in temper, more pacific;
A more tauting and adventurous rover,
And able to suck honey from red clover.*

Of old a super glass, or honey box,
Was placed above each of the thriffter stocks,
In hope they might be tempted there to store
A surplusage of twenty pounds or more
Of first-class honey; but a lazy fit
Would oftentimes prevent their doing it.

Now in these palmy days of honey-slinging,
The bees are kept without cessation bringing
New stores of sweet, which quickly we transfer
Into the mel-extracting cylinder,
And thence by use of force centrifugal,
Get honey by the pail or barrel full.

The march of progress is not over yet,
Nor will be till our apiarists get
A plan for making artificial comb,
And thus provide the bee a finished home,
To which all hands shall busily fetch honey,
And smiling bee-men turn it into money.

† Next we will find a bee like the Egyptian
For storing honey, but of a description
Quite opposite in temper, and without
That ugly inclination to dart out
The venomous sting, on slightest provocation,
Nature's worst form of counter irritation.

With all facilities for honey getting
A race of bees that will admit of petting;
Each household of an apiary possessed,
Bee-keeping followed with an unflagging zest,
Honey and milk shall flow all countries through,
And "home, sweet home," obtain a meaning new.

* License of poetry claimed here. The writer has never been able to satisfy himself that the Italian bee gathers from red clover, but it is often asserted as a fact, and "clover" was wanted here as a rhyme to "rover."

† This stanza is respectfully dedicated to N. C. Mitchell, Esq., of Indianapolis, Ind.