

FARMER'S ADVOCATE

AND HOME MAGAZINE.

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THE FARMER'S ADVOCATE

Home Magazine.

WILLIAM WELD, Editor and Proprietor.

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Published in the Dominion.

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The Month.

Since our last report there has been a good advance in the price of cheese and butter. We are now in hopes that the price will be fully maintained, and perhaps advance.

The enormous and unprecedented rise in butter and cheese has put a wonderful amount of life and spirit into our dairymen—not before it was needed, as the prices that have been paid have, up to within the past few weeks, been ruinously low.

Wheat has fluctuated but slightly. Farmers are not inclined to sell; they are holding in expectancy of higher prices. The immense crops in the Western States are moving faster than Canadian grain. We do not anticipate that there will be any decline in this cereal, or any other farm product; rather an advance may be looked for.

The shipment of wheat from this section during the past two weeks has been greater than at any time for the three years previous. Orders are now in for more than is procurable at present rates.

The great drain on our cattle and sheep for Europe must, we think, ensure higher prices in Canada, particularly for first-class animals. Farmers should be fined for killing the poor, fleshless and bony carcasses that are too frequently seen in our markets and called beef and mutton. It will not pay to kill such animals. We must aim to have the bones well covered, with an admixture of fat. It takes about as much of the valuable fertilizers from our soil to form the bones of an animal as it does to put the flesh on the bones. The loss in marketing these poor, thin, red-streaked

bones, for such does not deserve the name of beef or mutton, should be prevented. Every good farmer will have his animals well fattened. The shiftless ones that can not or will not fatten their stock well, should be compelled to dispose of them at home, and fined if they offer such improperly fed meat on any public market.

Good apples will bring a good fair price this year, if farmers will take pains and gather them carefully, and pack them properly, as the apple crop in England is very light.

The potato crop is so bad in England and Ireland that potatoes are now being purchased in Montreal for shipment to Liverpool. This opens another branch of business that the farmers of the Maritime Provinces and Quebec should profit by; and perhaps some of our Ontario farmers may find it profitable to ship from sections where the crop is good and they are situated at a distance from large towns or cities.

If you owe anybody a dollar, sell and pay it; pay every honest debt. It will not pay you to lose your reputation or pay interest on debts or accounts, therefore to all such we say—Sell! be men; owe no small debts to any one. Those that are out of debt may act on their own judgment, but as a general thing the farmer that sells early makes the most in the long run, as from loss in weight, interest, etc., it costs a farmer about 1½ bushels per month during the time he holds 100 bushels of grain.

Be sure to look after any sheep or cattle that may not be in as good order as they should be at this season of the year. Feed a little grain early; get them fat or in good order before the cold weather sets in, and avoid the poor man's banner—that is, hides and pelts hanging about in the spring of the year. Now is the season to prevent such an occurrence. If you cannot keep every animal well, sell or kill some now. You cannot keep too many sheep, if you can only keep them well; there is more profit in one kept properly than in a dozen that are neglected. See that ticks and lice are not troubling them, and give salt and brimstone occasionally.

Just look round and see if there is not some spot on your farm that wants a drain opened before winter sets in, so that you may be able to get on your ground a few days earlier in the spring. Would it not be well to put a few days' work on some bad places in the roads this fall? Could you not spare the time much better now than in haying and busy time next year? Besides, you could do much more good on the roads now with the same amount of labor.

A meeting has been held in Toronto for the purpose of forming a Horse Breeders' Association. A committee was appointed to take the preliminary steps for drafting a constitution for the Association. Mr. Sheriff Powell, of Ottawa, was appointed Chairman, and Mr. Williams Secretary.

Profit for Some.

We extract the following from the Sept. number of the *Scientific Farmer*, published in Boston:

"There is so much competition among the starch-factory people in Aroostook County, Maine, that they are offering two dollars a barrel for potatoes, to be delivered this fall, and in many cases paying one-half of this in advance, notwithstanding the largely increased acreage planted this year."

Perhaps it would be well for some of our enterprising Canadians to enquire into the reliability of the above extract. Starch is extensively used in the manufacture of many classes of goods. England uses large quantities. Perhaps our manufacturers may be supplied through American dealers. Manitoba and Prince Edward Island can raise potatoes at half the price above named, and have a good margin for profit. We should look after all these apparently trifling things. The yearly demand for starch represents an enormous sum. It makes a great difference to our material prosperity whether we expend a million a year or receive a million a year. It is our opinion that profit would accrue to this Dominion if the starch industry were examined into. Who will give the farmers more light on this subject?

Freedom or Chains—Which?

Let every reader ask himself the question "Am I free?" What is freedom? Is it to have the power to think and to utter unbiased expressions? Are there not many who are bound by some peculiar bond that prevents the free exercise of a personal judgment? Can a rabid Grit or dyed Tory look fairly and unbiasedly on the same question? Are there not altogether too many questions on different religious topics? Can an Orangeman or a Roman Catholic judge unbiasedly? Can any firm, private or secret society view without prejudice the acts of their opponents? Freedom and honesty are the greatest gifts to man. No class is afforded a greater opportunity of enjoying these great blessings than the farmer. Throw off all burdensome yokes and galling chains, and act, think and speak like fearless men. We have the power, but are apt to let others lead and guide us like mules and oxen. The *FARMER'S ADVOCATE* is, and always has been, open for farmers to talk to farmers, and to elevate them and their calling. If you are free, why this timidity? why not express your views as well through this journal as when speaking? There are many subjects to be discussed this winter, and if you have ideas, plans, or useful information to impart, use your pen, and talk through the columns of this journal to 100,000 people. Let not your light be hid.

Stagnant and impure water which cows drink while at pasture, is one of the most prominent causes of bad odors in milk.

English Letter, No. 6.

[FROM OUR OWN CORRESPONDENT.]

Liverpool, Sept. 1.

I have just had an interview with Mr. Dyke, the energetic agent of the Dominion Government. He is exceedingly busy with the development of the new project of the Hon. Mr. Pope for attracting the farming classes of this country to the Dominion. I cannot say that he seems sanguine of any very considerable amount of success, and I am bound to admit the force of what he says about the intense prejudice of the farming classes here. They have, however, had a rude awakening of late. The harvest all around indicates disaster, and many will be convinced, however much against their wills, that to cling to the old order of things means simply utter ruin, and my impression is, that if only a few really reliable men come amongst you, and can be shown, as I have no doubt they easily can, that your resources are substantial and the prospects for the future brighter than they are here, the next few months will see a considerable migration of the tenant farming classes. I have friends who have been accustomed to make the very best brand of cheese in the South Derbyshire grazing districts, and to receive for it 75s. to 80s. per cwt., or 7½d. to 8d. per pound, from agents who readily bought it at their own doors. They have now great difficulty in finding customers at all, and prices rule rather under than over 50s. a cwt., or a depreciation in a little over a year of fully one-third; and this really means, on dairy farms, all the difference between a fair profit and a heavy loss. The result is that very large numbers of the Cheshire and Midland farmers now send their milk to the large towns. The retail dealers buy from them at 7d. and 8d. a gallon, and retail it at 4d. a quart, or 16 pence a gallon; so that anything like a good round in the milk trade must be rather a good thing. I hear that the Liverpool dealers have combined to keep down the prices they pay, and to keep up the prices they receive, so the poor farmers are again getting the worst of it, and the consuming public receive no benefit. I am rapidly coming to the conclusion that to be a middleman is the finest thing out in trade.

In one of my earlier letters I referred to the intention of the Liverpool corporation to hold provincial horse and cattle sales. These sales are to be held quarterly at the Agricultural Produce Market. The first of the series came off on Monday, August 25th. There were over 700 horses and about 30 head of cattle offered for sale. Of the former, only a very small number were really good animals, every jobber in fifty miles round who had a cobbled up bit of horse flesh of any kind for sale having appeared to regard this as a chance, the market fee being only a shilling a head. Of course this thing will soon die out, and the fair, it is to be hoped, will develop into a really useful medium for producers and importers to offer superior animals for heavy van and omnibus work.

By the time this letter reaches you the Assistant Commissioners appointed to go out to America to collect information for the Royal Commission on Agricultural Depression will have landed on your shores. These commissioners, Messrs. Clare Sewell Read, M. P., and Albert Pell, M. P., are both practical agriculturists, and their report, whatever it be, will have great weight with the tenant farming class. They have a very wide field to investigate. Care should be taken by your authorities that Canada and the great North-West get their fair share of attention. This is imperative if the labors of the Commission are to be of any real use, for they have to deal with things, not men; enquiries are to be made, the several Cana-

dian localities visited, and, if possible, favorably reported upon, and Messrs. Clare Sewell Read and Albert Pell will be far more astute than they are credited to be in this country if they entirely resist the wiles and blandishments of these gentry.

I have an opportunity occasionally of glancing at your Canadian newspapers, and I see that the American Land Companies are everywhere prominent with their advertisements, trying to seduce your Canadian farmers from their homes. But this is only a bagatelle compared with their execution on this side of the Atlantic. As a sample,—it was stated in the papers the other day that some eighty farmers had left the counties of Durham and Yorkshire, in one steamer, last week, for Texas; and further, that this human consignment had been secured by a Dr. Kingsbury, European agent for one of the Texan Land Companies. I have been at some pains to find out whether this was really the case, and find that it was simply a Yankee canard. The emigrants bound for Texas numbered some forty souls, of whom probably not more than a dozen were agriculturists, and of these again the majority were laborers and not farmers. This man, Kingsbury, I understand, is most active in his exertions. Letters which were received by friends of mine in the Midland counties from him, promised profits of from 100 to 200 per cent. per annum. From the tenor of these letters I should pity the unsuspecting young English farmer who fell into such a man's clutches. Kingsbury has been from time to time exposed in the *Field* and other papers, but so far, apparently, with but little effect. The fact is, that he has, practically, unlimited command of "powder," and for one pound that the Canadian Government spends in inducing tenant farmers to locate themselves in a British dependency, where they will stand some real chance of bettering themselves, these American land speculators are spending hundreds in the effort to make a good thing out of our fellow subjects' bone, sinew and savings.

The reason why I allude to emigration at this length is that never before—probably since the potato famine—has the question occupied the minds of the general public so much as now. There must be many farmers who have succeeded in your country from all sorts of beginnings, and they could do an immense service to the land of their adoption as well as to their distressed brethren at home if they would send a series of practical, honest, straight-forward letters to one of our agricultural or other leading papers, giving them actual experiences from the first. This is a very important point, which cannot be brought home too forcibly to the minds of Canadians who have the knowledge and the ability to make themselves useful in this way. That a large population would be a benefit to the Dominion no sane man can doubt, and they would be adding to their own prosperity by doing their part in this way to direct the tide of migration towards your shores.

Although the weather, as you are aware, has been unprecedentedly cold and wet, there has been two or three short intervals of hot, damp, muggy weather, which have been exceedingly bad for the keeping of meat, and the result has been severe losses, not only in the dead meat trade but even in American beef slaughtered on arrival here. This has been owing mainly to the want of refrigerating appliances at the abattoirs, Messrs. Stevensons' cold store, which I have before described, being far too small and distant from the places of slaughter to be of much service in this respect. I understand that one grand lot of bullocks, brought over from the States, slaughtered at Birkenhead, and sent to London, owing to one of those close, hot spells, had to be sold at six cents a pound. You may readily imagine the loss

that resulted. It was recently stated in the papers that the Canadian Government had decided to extend the order prohibiting States cattle entering the Dominion. This has afforded immense relief to the trade here, who have been making a steady profit in Canadian cattle which were allowed to be sent alive into the interior. In fact, I am told that this advantage averages not less than 4l. to 5l. a head, a fair profit in itself. It may be taken for granted, however, that directly States cattle are allowed to enter the Dominion you will be scheduled, and this advantage will cease.

A dealer informed me, the other day, that the Canadian farmers are keeping their wether lambs this year, and thus improving their flocks, as suggested by me some few months ago. As this will reach you at about the time when the flock-masters send their surplus stock to the States, I again urge the necessity for your farmers keeping their young wethers in their own hands. Wether mutton, during the next few years, will be sure to command good prices. The like cannot be expected for old ewes and rams.

I trust you will have a fine autumn and everything propitious for your shows, and that your visitors may see the country to advantage.

Caution to Farmers.

After issuing our September number we observed the following in the *Toronto Globe*:

GRAIN BUYING.

A large and influential meeting of wheat buyers and millers was held at Palmerston on Wednesday, 27th August. Delegates were present from Port Elgin, Paisley, Walkerton, Mildmay, Clifford, Harriston, Palmerston, Listowel, Brussels, Galt, Guelph, Salem and Lucknow.

The subject under discussion was the present method of buying grain. The unanimous feeling was that a change must be made, and grain bought according to its intrinsic worth, in order to do justice to the buyers as well as to the farmers who take care in offering grain properly cleaned.

The feeling on this subject was so strong that the meeting unanimously agreed to adopt in their buying hereafter the scale of weights now in vogue in Waterloo and Wellington, which is as follows, wheat standing full weight of 60 lbs. being the standard:

If only 59 lbs. to the bushel, 1 cent off.	
" 58	" " 2 "
" 57	" " 3 "
" 56	" " 5 "
" 55	" " 8 "
" 54	" " 11 "
" 53	" " 15 "
" 52	" " 20 "
" 51	" " 27 "
" 50	" " 35 "

For grain going over-weight the same scale to be adopted.

If this plan is carried out in the localities above mentioned, most probably a similar attempt will be made in other parts of the Dominion. The result of such a plan would be a continued dispute in regard to the weight, and in some cases there would be an immense loss to the farmers. There is much light grain this year, and a farmer never expects so much for light as for heavy grain. He brings a load to market and sells at say 25 per cent. less per cwt. than for good grain; when delivering the bushels are weighed and a deduction of as much as 35 cts. per 60 lbs. allowed. Perhaps he has sold at \$1.10 per cwt., and by the deduction of 35 cts. per 60 lbs., equal to 58 cts., the farmer would only receive 52 cts. per cwt., not as much as bran would be worth at his farm. Thus he would lose his own time, the time of his horses, tolls and expenses. There will be but very little of the grain that will stand the weight test. The over-weight clause is of no account to farmers; not one in a thousand would receive the first cent for that. We would advise our readers to have nothing to do with this sliding scale, but to sell their grain at so much per hundred weight, and in no other way. We look on this as a dangerous trap to catch the unwary.

Industrial Exhibition at Toronto.

This exhibition has been a grand financial success. This is due to the energetic management of the directors. The greatest boon to this exhibition has been the great condescension of the Marquis and the Princess, who have done all in their power to satisfy the directors, citizens and visitors. The enthusiasm and desire to see the Princess have drawn thousands from long distances. The railways reduced their rates lower for this than for any previous exhibition. We have now no doubt that Toronto will be able to maintain a good annual exhibition for all time to come. The feeling of the masses in Ontario against expending the Ontario money devoted to agriculture in Ottawa has also tended to increase the attendance at this exhibition.

The display in all departments has been very good, excepting in the productions of the soil; the exhibits of grain, roots, vegetables, flowers and fruits were not, in our estimation, equal to those to be seen at many other exhibitions in Canada. The show of horses was good in quality, but very small in numbers; in sheep and swine the same remark may be made. The falling off in the exhibit of Durham cattle is most deplorable. There was not near the competition in the show ring that has been seen for many years. This is to be attributed to the reduced prices that this class of stock has been selling for; and those who have good stock have even other complaints to make. We heard several say that it was no use to try to compete against the Bow Park herd; that the influence of friends and politics was such that injustice had been done and they would not exhibit. The great point on which numerous breeders dwelt was the case of Russell vs. Bow Park last year. Thus very few of the Durham breeders exhibited, and they say they will not exhibit until stock can be judged on its own merits. The Bow Park herd stood almost alone. It is really a fine herd, but there are grave doubts if this monopoly is not doing more injury to the country than good. It is a great pity that our numerous good and noted breeders—the really practical, independent, leading farmers of our country—are driven off the field by monopoly and combination of influences. If it were capital alone that checked the Shorthorn men from pursuing their accustomed useful avocation, there would not be occasion for such regret.

The Ayrshires were better represented than usual. Some really good herds were to be seen in Herefords; they were well represented by two breeders. There was a fair exhibit of Galloways, and but four Alderneys were to be seen. Very few Devons were exhibited. The exhibition taking place at Guelph at the same time no doubt kept some of the stock from being present.

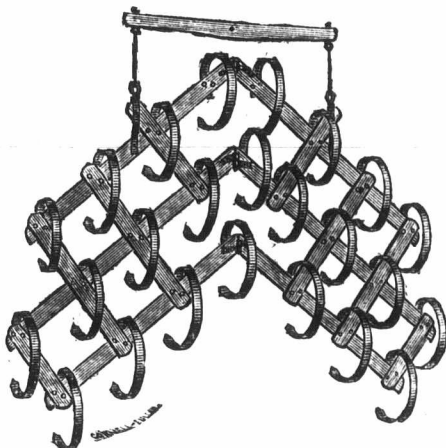
This exhibition has been a highly creditable one. The citizens of Toronto and the committee have exerted themselves in a commendable manner to have everything so well arranged. The new buildings are a great acquisition to the exhibition.

The display in the main building is equal to the displays made at Provincial Exhibitions. The machinery hall is nearly filled with machinery in motion. The implement building is the greatest improvement on the ground; it is filled with agricultural implements of the latest and most approved patterns. The space is not yet near large enough to accommodate all the machinery exhibited, and many implements were necessarily placed in other situations. The exhibits of grain, dairy produce, roots, vegetables, etc., are not equal to those seen at previous exhibitions; in fact many township exhibitions equal the display in these most important departments. There may be more display in imported goods and decorations,

but the real products of the farm are the proper articles to judge from.

THE ROYAL VISITORS.

The greatest attraction at this exhibition is the Princess. People go with the expectancy of seeing the daughter of our beloved Queen; we saw many ladies running—or almost running—hither and thither to catch a glimpse of her, after having been three days in expectancy. To you that have not the opportunity of seeing her we will give our opinions in regard to her appearance. Dress light blue; veil and ostrich feather in bonnet, do.; a brown parasol in one hand and a bouquet of flowers in the other; height average, figure good, features pleasant, kindly, firm; step elastic and firm; voice fearless, pleasing, decisive—in fact a lady that is perfectly capable of looking after herself, and one that would be a help to any man in any position to whom she might have become attached. In the implement building she examined with interest the workings of the Kirby reaping and binding machine, and asked to see it bind a sheaf. A small sheaf was instantly bound and handed to the Marquis, which he took away with him. When Her Highness arrived where the novel, queer-looking implement,

THE PATTERSON HARROW

was, she asked what it was for; on first seeing it we did the same; most people wonder what it is. We give an illustration of this harrow: The teeth are bent spring steel about two inches wide; in working on fall plowed land they are found most advantageous, as they tear up the ground and leave it more mellow and loose than other harrows or cultivators. The jerking, springy motion loosens the ground, and the teeth set themselves to any inequality of the surface. Several of our subscribers, who are the best farmers in the county of York, have procured these harrows, and give the most satisfactory accounts about them. Mr. Patterson, of Richmond Hill, is the manufacturer. He feels highly pleased that Her Royal Highness has shown such an interest in examining the agricultural implements. We should not be surprised if he would call his the Princess Harrow.

There are a few incidents in regard to the visit of the Marquis and Princess that may amuse. For instance: A Highlander went to the doors of one of the buildings that was closed, ready to receive the Governor and party, and asked of the attendant: "Is Maister Campbell and his wife in the building?" A German inquired: "Ish de big man und his vrow goin' to pass dis vay?" A little child called out: "Which is the Princess and Marquis? I can only see men and women."

A GLASS HEN!

The next greatest attraction on the ground is the glass hen. This consists of several large, round, flat boxes, in the form of cheese-boxes, one of which has glass sides. The eggs are placed in the dark boxes at different times. When the proper time arrives for hatching the eggs are placed in the glass box. In this many hundred

of eggs may be seen, some just beginning to crack, others in more advanced stages of hatching. It is really amusing to see the little chickens exert themselves, until they are exhausted, to get out of the shell; then they remain quiet till strength is restored, then another struggle for life. This is often repeated; when hatched they struggle to get up on their feet, then rest and struggle again. These continued trials and struggles, exhaustions and rest, are but emblems of the lives of us all. The eggs are heated by an apparatus that is regulated by little electric wires that open and close a valve when the heat is too great or not sufficient. It is an ingenious arrangement. All go to see it, and all are pleased. The chickens when strong enough are placed under a glass mother and fed. Little boxes are at hand. Many purchase the chickens for curiosity; ten cents for a steam hatched chick, or three for twenty-five cents. The Exhibition committee will make more money out of this glass hen arrangement than from any other expenditure on the ground. They erected the building and retain 40 per cent. of the receipts; the admission is ten cents.

Geo. Leslie & Sons and Messrs. Stone & Wellington have lain out and planted a piece of land with trees, flowers, &c. Messrs. Stone & Wellington's nurseries are situated at Fonthill. They have 260 acres, nearly 100 of which is already filled with nursery stock, much of which consists of the latest novelties and numerous varieties that are to be found in the nurseries across the lines. They are erecting forcing houses at a cost of \$4,000. This firm bid fair to rival, in some instances, in a few years, the fine old-established nurseries of Leslie & Sons, who now have over 200 acres in nursery stock. We do not notice many novelties at the Exhibition, nor do the articles exhibited appear to us better than at previous exhibitions. We think the highest possible excellence in most things exhibited has been attained. Still on some things there are improvements deserving of notice.

IMPLEMENTS.

Messrs. Haggert Bros., of Brampton, show a threshing machine that has its rods cased in brass tubes, so that anything coming in contact with the machinery cannot be wound or drawn in, as the rod revolves inside of the casing. This machine is so constructed that it drives the dust out of the barn. This is a decided improvement, as we have often been troubled more with the dust than with the work when threshing.

John Abell, Woodbridge, Ont., exhibits a piece of iron; it has been two of his boiler plates riveted together, then cut directly in two through the rivets and plates. It has been ground and polished. It is as smooth as glass, and appears as if it was one solid piece. It is really a surprising exhibit, worth looking at, to see the two cold pieces of iron plate fastened together with these simple iron rivets, should be so compressed as to become one solid mass, without the slightest flaw, and these sections and joints to appear as smooth and perfect as the blade of a knife. This is effected by an hydraulic power. If you have an opportunity, examine it; it is in the Implement Hall, where his threshing machines are. He exhibits several farm engines made from this compressed iron.

Mr. H. Sells, of Vienna, exhibits improved cider mills. The grinding apparatus is more simple. It consists of a series of small nails on a revolving wooden flange or drum. This tears the apples into the smallest particles, causing the cider to be more easily expressed. His press has also been improved by having a beam and weight attached. It appears to do the work more speedily than it was formerly done.

The Waterous Engine Works Company make a great display. Their portable farm engine stands near the implement shed; a saw-mill is run by it, and a portable grist-mill is in the shed. They can be cutting saw-logs one minute, the next be grinding and bolting wheat, turning out an excellent article of flour, and in another minute they can be chopping oats and peas, or grinding corn in their new feed-mill. This mill consists of two small burr-stones, like ordinary mill-stones. These stones are set to run perpendicularly, instead of horizontally as the common mill-stones. They appear to do the work in a satisfactory manner. This Company are now prepared to send their machinery to the States and to several other countries. They have already exported several of their saw-mills, and would do a very large business if Canadian interests were as well looked after in other countries as the American and British interests are. The Government should enquire into the statement of Mr. Waterous. It is not the National Policy which prevents Mr. Waterous from pushing Canadian interests in foreign lands, but it is the lack of diplomacy. England and the States have both their own interests to attend to. They complain that Canadian interests are not fostered by the British foreign Ministers. The grist-mill, saw-mill, feed-mill and engine make a complete set for a colony.

A seed drill is exhibited that has a combination to sow fertilizers. If it works well when put into operation, there will be a demand for it, as such a machine is wanted; but a patent is more easily obtained than a new and efficient implement.

A Mr. Jones, of St. Thomas, exhibits a new plan for making iron fencing and setting posts into the ground; he also shows an iron farm gate; the gate and fence are durable and cheap. These are all new designs to us, and are the most sensible gate and fence we have seen exhibited for many years. The exhibitions have generally been filled with a lot of patent fixings of this kind that have not been worth the space occupied.

E. Leonard, of London, exhibits an agricultural engine that attracts considerable attention.

Mr. John Watson, of Ayr, exhibits his horse-binder. This implement is to follow a reaper, pick up the grain and bind it. Mr. Watson is one of our most enterprising manufacturers, and makes a point of making his implements give satisfaction to purchasers. He has expended a good deal of time and money in perfecting this machine. He says he intends to have one in every county next harvest. This machine deserves an examination. It will be at most of the leading exhibitions this autumn. So will most of the good implements to be seen at this exhibition. We presume that the exhibit of implements, grain, vegetables, stock and fruits will not be excelled at other exhibitions. The building and royalty will not afford as much attraction as they have at Hamilton, simply because other places are not so well favored.

There are very few exhibitors from east of Oshawa or north of Richmond Hill. Only a few of the Hamilton or London manufacturers exhibit.

Brantford, Paris and Ayr manufacturers exhibit in full force.

The most surprising exhibit in the Machinery Hall is the engine that drives all the works. The surprise is to see this fine, powerful engine smoothly and beautifully running, driving the whole of the machinery in this large building, and to think that two weeks before it was running in this building it was all in the form of bars of rough pig iron, as the manufacturers, Messrs. Thompson & Williams, of Stratford, only received the order to construct it two weeks before it was to be running in Toronto.

PETROLEUM PRODUCTS.

Waterman Bros., of London, made the most attractive, astonishing and valuable exhibit to be seen in the main building. It consisted of subteraneous productions, brought from hundreds of feet below the earth's surface and made subservient to our use and attractive and pleasing to the eye. It consisted of petroleum in its refined state and the refuse from petroleum made into wax, moulded and carved into beautiful devices, pure and colorless. Some was also colored with the various shades of color seen in the rainbow. It must be seen, used and thought of to fully comprehend the value of this enterprising and valuable display.

THE GRAIN, SEED AND VEGETABLE DEPARTMENT

is a very meagre display; in fact, this department we consider a total failure, Mr. Rennie and Mr. Simmers, Toronto, being the only seedsmen; the other seedsmen have thought that monopoly was wanted, and they might have it. The names of Keith, Bruce, Marcon, Evans, McBroom & Woodward, Sanderson and others are not to be seen. The Government exhibits and medals are displayed. One person makes a display of several kinds of grain, among which is a black-bearded French wheat, from which he is making a little cash—20 cents per head being the price charged.

The Egyptian wheat—called the Eldorado—has been awarded the first prize. This is just in accordance with the awards that have too often been given by the Provincial Board. This first prize wheat is undoubtedly the most dangerous and useless wheat for Canadians generally; it can only be raised in one locality; it has failed in all others. But many think that a first prize implies a meritorious article for general use. The first prize or a medal is not always given to the most meritorious exhibit. We know from experience of what we speak regarding this Prize and Honor question. For instance, the first prize for a reaping and mowing machine at the last Provincial Trial at Paris was given to the very worst machine exhibited. It helped the sale of the machines for a year or two, but the farmers that got the first prize machines were badly sold men. That first prize machine is so well known that the machine has become extinct, as this first prize wheat will. Mr. J. H. Rowe, of King P. O., made one of the most meritorious displays in the building. It consisted of many varieties of potatoes, some of which were entirely new, and promise to be a great acquisition.

The city was decorated with arches, banners and illuminations. The illuminations were arranged into various devices. The one that drew our attention and thoughts more than any other was a large illuminated painting, representing a lady having the features of our queen standing near the Niagara Falls. Over this illuminated painting were these words,

"YOUR MOTHER NEXT."

By far the greatest attraction at this Exhibition was the presence of the Princess Louise. We know of one lady who went from west of this city more particularly to see Her Royal Highness, and large numbers went from long distances to render their welcome and satisfy themselves. A good opportunity was offered them to do so, and they saw and were satisfied.

Cheering reports have been received of a bountiful harvest having been garnered in Newfoundland, Prince Edward Island and Manitoba. Also reports from Switzerland and part of France state that the harvest has been a good one.

Missouri farmers are offering their corn at ten cents per bushel in the field or fifteen cents delivered.

The Government Sale at the Model Farm at Guelph.

This sale took place on Friday, the 12th of September. There were over a thousand farmers present, about seven hundred of whom partook of lunch. We give the following figures to show the average prices realized:

Average of Shorthorn Yearling Bulls	...	\$ 73 34
" Hereford	.....	150 00
" Ayrshire Heifers	.....	35 00
" Cotswold Shearling Rams	.....	20 00
" " Ram Lambs	.....	14 12
" " Aged Ewes	.....	10 00
" " Shearling Ewes	.....	16 16
" " Ewe Lambs	.....	9 75
" Leicester Shearling Rams	.....	19 66
" " Ram Lambs	.....	14 88
" " Aged Ewes	.....	14 00
" " Ewe Lambs	.....	10 75
" Southdown Shearling Rams	.....	13 00
" " Ram Lambs	.....	7 66
" " Shearling Ewes	.....	13 00
" " Ewe Lambs	.....	9 00
" Oxforddown Shearling Rams	.....	26 50
" Berkshire Boars	.....	7 86
" " Sows	.....	8 00
" Prince A. Windsor Boars	.....	15 25
" Spring Wheat (Russian No. 7), Lost Nation	.....	1 18
I. Cattle	.....	\$ 475 00
II. Cotswold Sheep	.....	657 00
III. Leicester Sheep	.....	312 00
IV. Southdown Sheep	.....	155 00
V. Oxforddown Sheep	.....	77 00
VI. Berkshire Pigs	.....	244 25
VII. Windsor Pigs	.....	30 50
VIII. Spring Wheat	.....	393 80
		\$2344 55

These sales are perfectly demoralizing the business of the old staunch breeders of this country. They could formerly afford to import, improve, feed and maintain their herds for exhibitions, but now when the Government taxes them for the means of paying for inferior importations, and then sacrifices that stock at ruinous prices to the public, it discourages them. Every breeder that we spoke to in Guelph about this sale was disgusted with it. They say it prevents and checks private enterprise. The marked effects of this institution may already be seen at the exhibitions. The former energetic breeders are growing fewer in number, and the magnificent herds of cattle and flocks of sheep are not equal in numbers to what were exhibited before this robbing institution was established. The sooner this Model Farce is abandoned the better it will be for the farmers of Ontario. As for the education, there is nothing more taught here than ought to be taught in our schools in the country or at the veterinary colleges. And these sales are only interfering with private enterprise that formerly was doing the business of improving the stock and seeds of our country in a better and cheaper manner than it is being done by the Government. Away with it! It was only a stolen idea—stolen from a farmer for the purpose of making an office for a person that acted strongly for a politician. It was sprung on the country at the last of a session; then a change came and it was shifted to Guelph. No man dare tell us that it was ever established for the farmer's benefit or by farmers.

Seed Wheat at \$750,000 per Bushel.

An illustration and particulars of a spring wheat to be introduced this year will be given in February issue of this journal. The FARMER'S ADVOCATE has furnished the first and most reliable accounts procurable about seed wheat during the past 14 years, and continues to inform its readers about frauds and deceptions. We are constrained from furnishing particulars about the \$750,000 wheat till February; therefore we request no one to ask us about it until that time.

The Fall Exhibitions.

The busy bustling time of the Fall Exhibitions is nearly over for this year, and we can assure you we are glad of it, as there is such a thing as excess of pleasure. We could not attend to all if we were ever so anxious; neither could we pay as much attention to our many friends as we should like to do. We attended the long, three-week's exhibition at Toronto a portion of each week. We also visited the Guelph and London Exhibitions. In London we met several of the members of the English Commission, who are now on this Continent examining our country; also Mr. Moore, the editor of the *Irish Farmer*, published in Dublin; and Mr. J. G. Ramsay, the Honorary Commissioner from South Australia. The two last-named gentlemen expressed themselves highly pleased with the exhibit at the Western Fair. They were quite astonished at seeing such a display, and were both most favorably impressed with Western Ontario.

It would not be practicable for us to publish the whole lists of the numerous excellent exhibitions held this year. As each have exhibits of a superior quality, we compiled our prize list from different exhibitions. There are undoubtedly some omissions or commissions in every paper published. We have not been able to devote as much attention to this number as we could wish. Now the long winter evenings are set in, the busy season is passed, and exhibitions closed, we must devote our attention to the lessons taught by them. All who have attended an exhibition should have learned something. Perfection in the management in all departments is not, or perhaps never will be attained, excellent as exhibitions have been, and however much we have each striven to aid and improve them. Most of us see some particular way in which we think more good may be done. Many will grumble or complain. Some, for trivial causes, will slacken their interest and exertions because they cannot have everything as they wish. A person that exhibits and does not gain a prize is deserving of the thanks and good will of the community far more than that sordid, tight-fisted individual who has a large tract of land, and never comes to the exhibition to profit from the labors, cares, and researches of his neighbors. It is our impression that our Legislators now see that the existing laws governing our agricultural affairs must be remodelled. They now see that their recent Act is not working satisfactorily. We well know there is a desire on the part of many Legislators to act fairly and justly to the farmer, and that the party that acts most in accordance with the wishes of the farmer must be in a majority when subjects are fairly and impartially looked into. We know there are some who wish to curtail the power of the township exhibitions. There are others who wish the county exhibitions amalgamated. Then those wish the influence of the union and county exhibitions curtailed, so as to strengthen the influence and power of the Provincial Exhibition. The following will be a good heading for this winter's discussion:—"THE FUTURE MANAGEMENT OF OUR AGRICULTURAL EXHIBITIONS."

We want to give fair play to this question as well as to all others. We merely lay the question before you now, and request any to express their opinions under the above heading. Communications should be in the office by the 20th of each month, but as this issue is late, we will extend the time for this month until the 25th.

At the International Agricultural show held not long since at Kilburn, Eng., it was considered a remarkable thing that while there were no dairy exhibits from the United States, Canada was represented by a cheese a ton in weight made by Mr. Morton, of Kingston, Ont.

Stock Diseases.

In Toronto we met the Hon. W. G. LeDuc, Commissioner of Agriculture for the United States. We are in receipt of several of the Commissioner's reports from Washington. They embrace a fund of useful information on various subjects pertaining to agriculture, stock, etc., for which we return our thanks. Among a few questions sent us in one of the publications is the following:—

"I will be pleased to have the results of any experiments you may have had in the prevention, treatment, or cure of infectious and contagious diseases of swine and other classes of farm animals, and the extent to which such diseases prevail in your locality."

"Wm. G. LeDuc, Commissioner."

In reply, we have never yet seen an animal affected with pleuro-pneumonia, nor heard of one in this Dominion. The hog cholera was introduced into Canada two or three times, but we are pleased to state we have only seen one lot of hogs suffering from this disease. There have been five or six head affected in Canada. At the present time we do not know that a single case could be found. The foot and mouth disease has also been introduced among us, but we are pleased to state that we have not heard of a single case of this disease existing here for more than a year. Trichina we have never heard of as having yet been introduced. We furnished immediate information to our Government as soon as we saw the first case of foot and mouth disease, also in the first case of hog cholera. The authorities, either wisely or unwisely, took no steps to prevent its spread, but endeavored to prevent the facts becoming known. Fortunately we hope and believe we are now free from either of the above-named diseases. We have heard of a few cases of glanders. Should any case of that disease again appear, we believe our authorities are now prepared to take immediate steps to destroy any animal affected by it.

The Provincial Exhibition.

Parcially cited the "Dominion Exhibition," has been a grand financial failure, despite the flattering accounts published about its great success, and the consequent attendance (see papers.) This journal has predicted a failure, and ruination to the Provincial Association from the time it was first held in Ottawa, if it was again attempted. We attended it four years ago, when it was first held there. We have cautioned the public, and even informed the Hon. A. Mowat personally that there was danger; that the funds were not safe. We have even foretold the total collapse of this body. Four years ago, when one member of the press only was in the board room, a motion was carried that strangers be cleared from the room. The only stranger (the writer) left, because no one had the honor to say one word for the press. We never have entered the door of the Association since, and never will again until some of the old members either resign or are removed. The published receipts indicate how far from correct the guesses as to attendance were. The gate-money amounts to about \$9,000; this the Board palms off on the credulous farmers for the receipts of a Dominion Exhibition! Is not this a pretty exhibit for a Dominion Exhibition! The extravagant or wasteful expenditures of this Board have been increasing at the rate of about \$3,000 per annum; perhaps the attempt may be made to keep this Board together under some other guise, such as the "Dominion Exhibition."

The facts are apparent to us, and they have been publicly stated, that there is something wrong. Some of the honorable members that are on the Board have had spirit enough to disagree with some of the iniquitous acts of the Board.

The honorable members should insist on a rigid and close inspection of all the affairs of this Board for the past fourteen years. Only a partial examination was made some years ago. The country will, no doubt, be called on to vote more money to aid this Association in its various iniquitous undertakings, to help them again.

Farmers, caution your member, and if he votes for a grant of money to be expended against your interest, reject him at the next election.

The receipts of this Board from tickets sold, exhibitors' fees, and booth rents, together with the Government grant, amounted to \$39,000. We hear there were receipts that were not even entered in this. For instance, at these Provincial Exhibitions we have heard of untold amounts of money having been stolen; also that at times the turnstiles, checks, and tallies have been abandoned.

Who stole the money? or who is responsible for the abandonment of the checks? The Board have been very careful to keep this from the public. Why do they not defend themselves from these imputations that are constantly thrown out against them.

Manitoba made a very interesting display of roots and vegetables at the Ottawa Exhibition. From what we observed when in Manitoba we believe they can excel the farmers of the Eastern provinces in many kinds of vegetables. The exhibit was very fine in this department. The grasses were very good and drew forth the praise and admiration of all. The soil exhibited we think could not be excelled. The wheat is of excellent milling qualities, the oats good and barley fair; the peas were much better than we expected to see. The Manitoba cart pleased all observers, and the Indian bead work, canoe, stuffed birds and skins made quite a miniature museum.

At the annual meeting of the Provincial Association, at which the delegates attend, the President delivered a long and well-prepared address, in which, when alluding to the independent exhibitions of Toronto, Hamilton, Guelph and London, he said: "It is questionable whether this state of things should be allowed to continue, and whether legislative action should not be resorted to by which judicial arrangements should be made for the proper control of these rival shows, so as not to impair the great usefulness and Provincial celebrity of this Association." (See report.)

Rev. Dr. Burnett proposed a vote of thanks to the President for his address; Mr. Brown seconded it. Carried.

Not a voice was raised against this clause, therefore it goes before the world with the sanction of the whole Board and the silent consent of the delegates. It is our impression that this clause must have been suggested to the President by some of his co-officials, as we really think that Mr. Willmot wishes for the welfare of the farmer. These annual addresses are generally cut and dried before being delivered. There are other clauses that might be criticized, but this attempt to commend to our Legislature to enact a law to trample out of existence these excellent and in most cases better managed Exhibitions deserves, we think, a severe censure from those that have so ably supported these City Exhibitions—namely, the farmers. There has been far too great an attempt made to make agricultural progress subservient to political purposes. We hope some of our readers may express their views on this subject.

It is curious that in all the enterprise witnessed in the breeding of the various classes of horses, that really fine carriage horses command a higher price, relatively, than any other. They are always scarce, and for the reason, as we believe, that the average farm horse is undersized. Carriage horses are produced by crossing staunch thorough-breds upon large, handsome, roomy mares. There is money in this class of horses.

Notes from Devonshire, England.

[FROM OUR OWN CORRESPONDENT.]

Exeter, Devonshire, Eng., Sept. 10.

For the past two months I have been roaming about among the farmers of Devonshire, taking notes of their modes of doing business, and admiring the beautiful scenery with which they are surrounded. The farmer hereabouts I have found a whole-souled fellow, brimful of hospitality. The English farmers that I have come in contact with are not slaves (as I have heard them termed in Canada), but are just as free as the air they breathe. They are intelligent, industrious and generally contented.

Of course, just now there is great depression in agriculture, and some of them are "death on Americans" (which includes Canadians) for the way in which they invade the markets here with all kinds of produce. In this connection one of the leading English newspapers observes: "If it be asked whether, in the face of the prevailing gloom and doubts as to the eventual falling off in American competition, farmers may look hopefully to the future, our answer is in the affirmative. There is nothing in the realities as distinguished from the artificialities of the situation to prevent the British farmer from outlasting every competitor. He lives in a land blessed with Free Trade, which means that he can work his business at less cost, both as regards the price of labor and plant, than America. He has the richest and most constant market in the world at his very doors. His transport service is organized so that it does not—as in the case of his American rival—rob him of nearly all his profit. The British farmer has a tilth to deal with which to a great extent is excellent and easily worked. With these natural advantages in his favor, how is he to get a fair chance? The present Government, in introducing the Agricultural Holdings Act, would appear to have approached the solution of the question. The principle of that bill, if made operative, would be the beginning of all schemes for giving the farmer a clear field. The principle is that he should in his operations have what every other producer in the country has—security for his capital."

Americans, however, are not the only ones invading the English markets. Australia bids fair to be at no distant day a very powerful rival to the American continent. Several cargoes of Australian wheat have arrived here and been very favorably received.

Whilst the agricultural situation throughout Great Britain generally is said to be fraught with the gravest alarm, on account of heavy rains, certainly this part of England has no cause of complaint under that head. The most delightful weather I ever experienced has prevailed hereabouts for two or three weeks past. The immediate past week has been what they call here "smoking hot"—weather to me perfectly charming—with no sign of rain, and in consequence most of the grain in Devonshire has been "saved" in a good, healthy condition. The chief complaint in this neighborhood is over the failure of the potato crop. The grain is not put into barns here as in Canada, but is "ricked" and threshed out at leisure.

The mode of carrying grain in some parts of Devonshire is very old-fashioned, and on my seeing it, it struck me as being not only very peculiar but very romantic. As many of your readers are no doubt aware, certain parts of this county are hilly in the extreme, some of the farming lands rising to an extraordinary height, and it is found impossible to work a wagon or other vehicle on the sides of these hills. When harvest time comes, therefore, horses are supplied with a sort of huge

basket or cradle, strapped on to their backs, and the grain is loaded therein and so moved to the "mowey."

In the more remote parts of Devonshire the "great reaps" so popular in all parts of England many years ago are still kept up with all their attendant jollification. The hills before alluded to prevent the use of reaping machines.

In going over certain farms I noticed the ground covered with thousands of good-sized stones, and in one instance inquired of my friends the reason why they did not remove them, for I could not understand how a scythe, &c., could pass over the land and properly perform its work with such obstructions in its path. The answer to my query I will give you in nearly the same words as came to my ears: "Well, you see, the soil in these parts is naturally very wet, but what it would be like after rain if it wasn't for these stones it is difficult to say; after rain the sun strikes these stones (all lime rock) and makes them good and hot, so that their warmth actually dries the ground more than the direct rays of the sun; we therefore let them stop, you see, not only to dry the ground, but to warm it." That, to me, was a novel idea, and I could not forbear there and then making a note of it for the readers of the ADVOCATE.

Enormous quantities of sea weed and sea sand are used as manure by the farmers living any way near to the coast. Inland the staple manure seems to be lime and bone-dust.

Of course this is the county famous for its cream, and I fully bear out all that has been sung in praise thereof. The prevailing mode of scalding the milk is to stand the tins in water, and make the latter hot. The old way that I remember when a boy was to place the tins on live coals, and some follow this plan to-day.

It will perhaps be news to many Canadians to learn that sunflowers and tomatoes are no strangers in England. On a recent ramble in the country near Exeter I saw several groups of sunflowers, in every respect the same as I saw them in Canada. Tomatoes are exposed for sale in every fruit dealer's window.

In a leading seed store of this city I notice unusual prominence given to "American potatoes"—such as the "Early Rose" and "Pride of Ontario"—and I can assure you they make no mean display beside the best English spuds.

The statistical and commercial department of the Board of Trade recently issued a summary of the agricultural returns collected in this kingdom on June 4th. They show that the extent of land under the principal crops was as follows: Wheat, 2,890,136 acres; barley, 2,667,103 acres; oats, 2,656,575 acres; potatoes, 540,842 acres; hops, 67,715 acres. Compared with June 4, 1878, the foregoing shows an increase of 8 per cent. in barley, and of 6-4 in potatoes; a decrease of 10-2 per cent. in the area of wheat, 1-6 in oats, and 5-7 in hops. The total number of live stock in Great Britain on June 4 was: 5,856,599 cattle, 28,154,881 sheep, and 2,091,464 pigs. Sheep are 251,325 fewer than last year, while pigs are less in number by 391,784. Compared with 1878 there is an increase in cattle of 118,471.

DEVONIA.

C. G. T. says: "I have made no better butter or cheese from tame grasses than from the wild. The wide leaf and blue joint varieties of the wild grasses, both for pasture and hay, were the most valuable." This may be true, but he forgets to compare the difference in the quantity produced by each. Five acres of wild grass to feed a cow, and one acre of tame grass! The wild strawberry is of fine flavor, yet who would say it is as valuable as one of our improved varieties?

Picking, Packing, Keeping and Marketing Apples.

Before picking is commenced, suitable places should be prepared in the orchard for the temporary storing of the apples. Select a dry spot of ground near the trees. Drive into the ground stakes at proper distances apart, against which set two or three boards on their edges, thus forming a bin with boards on three sides, leaving one side open to carry in the apples. If dry spots of ground cannot be obtained, lay a few old boards for the bottom of the bin, on which spread a little clean straw or hay. Make enough of these bins to hold the apples without mixing varieties. Apples taken from the trees before the commencement of the sharp frosts keep better than if left on until late in the fall.

Apples should be perfectly dry when taken from the trees and kept so until stored away. When picking use oval-shaped half-bushel baskets. Drop all inferior apples; be careful to put none in the basket but sound, smooth fruit, of fair size. When the basket is full carefully pour them in the bin, and when that is full, or at night, cover with boards to keep off the sun and rain. Never cover the apples while in the orchard with straw. It makes them too warm, and there is no danger of the fruit being injured by frost until quite late in the season. They must be kept dry and from the sun.

To keep apples nicely a dry, airy, light, clean cellar is necessary. The sides and ceiling of the cellar should be cemented with plaster to keep an even temperature of cold, and the bottom of the cellar cemented with waterproof cement to keep out the dampness. In such a cellar bins three feet wide may be constructed around the sides and wider ones through the centre. These bins may be filled with apples from the bottom to the height of five or six feet, without danger of injury to the bottom apples by the weight of the upper ones. Make the necessary upright partitions in the bins to keep each variety separate. Apples keep much better when stored in large quantities than if spread out in layers on shelves. When bins cannot be constructed in the cellar the apples may be put into barrels and headed up tightly, and stored away in the cellar. In this way they usually keep tolerably well. Vegetables of no kind should be stored in the cellar with apples. In a temperature suitable for keeping the latter most vegetables will freeze.

On the approach of cold weather the apples in the orchard should be carefully moved to the cellar, putting away none but sound fruit. Leaves or straw should not be put in with the fruit. They draw dampness and speck and rot the apples. Apples put away according to these instructions may be kept until late in the following spring—late keepers until midsummer.

When packing for market new barrels are preferable; old ones will answer provided they are sound and clean. Old or new barrels, the middle hoops must be well nailed to keep them from slipping down, and the nails hammered down on the inside of the barrel. When packing select half a bushel of smooth apples of uniform size. With the hand place a layer in the bottom of the barrel, fitting them closely together and laying them stem down. Now place a row around the side of the barrel with the stem next the stave; then fill up the centre closely like the first layer, stem down, after which the barrel may be filled by pouring them in carefully from the measure. When the barrel is half full shake it a little, and as it is filled continue the shaking, occasionally giving it sharp raps on the floor, which packs the apples closely together. When full level up with smaller apples, making the top row half an inch above the staves of the barrel. Loosen the top hoops, lay on the head, and with a screw or lever-press force it down to its place; tighten the hoops, remove the press, put on the top hoop and nail it fast. Nail cleats on the inside of the staves to keep the head in. Now turn up the bottom end of the barrel and mark it for the top, with the name and quantity of apples, being careful to give good measure. If you wish to ship the apples in the fall or beginning of winter, the packing may be done in the orchard, but the barrels must be kept dry after packing. If the apples are to be shipped during the winter or spring a packing place must be prepared at or near them. When apples are shipped in cold weather the barrels should be lined with paper. If the weather is very cold, two thicknesses of paper being used and the barrels tight, apples may be shipped a considerable distance with safety. Care, however, must be taken that no part of the wood touches the fruit.—[Cor. Germantown Telegraph.

Dairy.

The New Milking Machine.

BY PROF. X. A. WILLARD, OF NEW YORK.

For many years dairymen have been wishing for some mechanical device to milk cows—a machine combining the following requisites: Milking rapidly; drawing all the milk from the udder without injury to the teats or udder—causing the cow no more uneasiness while milking than hand-milking, and having no tendency to dry the cow of her milk when used from day to day and from week to week; and finally to be simple, not liable to get out of repair, easily operated and easily cleaned, and as efficient in every respect as hand-milking, but doing the work more rapidly.

Inventors have been trying for years to supply such a device both in this country and in Europe. The demand for it is very great, and especially at this time when economy in labor is an important item in the profits from dairying. Such a machine would relieve the dairyman from a vast amount of drudgery and be a saving of labor on an equality with the mower and reaper.

The drudgery and worry, to say nothing of the cost of hand-milking, in any considerable dairy of cows, can only be appreciated by those who are engaged in dairying. It is a kind of work that can not be put off or slighted with impunity. First-class milkers are never plenty even in the dairy regions, and immense losses are annually sustained in the aggregate on account of the inferior manner in which cows are milked. A cow to yield the best returns should be milked with regularity as to time; the milk should be drawn rapidly and the udder completely emptied, since leaving a little milk undrawn at the time of milking has a tendency to lessen the quantity from day to day, and thus dry up the cow. A good milker will milk about ten cows per hour; and in large dairies from ten to twelve cows is the number usually allotted to one person night and morning. A dairy of fifty cows will require from four to five milkers, and in many instances the dairyman is obliged to hire more help than he actually requires on the farm simply to obtain the needed help in milking; in other words, if the milking was not taken into account he would often dispense with the hiring of from one to two hands. Thus it will be seen the cost of extra labor, including board, will make quite an item of expense to be charged to the account of milking. In Central New York women can occasionally be hired to come upon the farm morning and evening and help do the milking. Such cases are not by any means common, but where they occur about \$3 per week is given to each person for the service, the milkers, of course, furnishing their own board.

But even when the dairyman has provided for his help in milking, there are many accidents that are occurring from time to time that will reduce his force, thereby throwing the work upon the few remaining hands, who are compelled to overwork. The strain upon the muscles of the hand in overwork at milking is not unfrequently serious, laming the hand so as to incapacitate it for work during longer or shorter periods of time.

Again, many persons never learn to be good milkers, while others slight their work and abuse the cows, unless closely watched and prevented by the proprietor or manager of the dairy.

It will be seen, then, that if cows could be properly milked by machine the dairymen would be comparatively independent of hand-milkers, while the work could be done with more regularity and uniformity, and with less abuse to the stock.

MILKING TUBES.

Among the earliest devices brought out for milking were milking tubes, made of silver or other metal, and arranged so that by pushing the tube up the orifice of the teat until it reached the milk-reservoir at the base of the teat, the milk was tapped and drawn off. These tubes could only be used for short periods, because they soon irritated and inflamed the milk-duct, which not unfrequently resulted in the loss of one or more quarters of the udder. From time to time these things have been advertised, but their use is dangerous and dairymen should be warned against them.

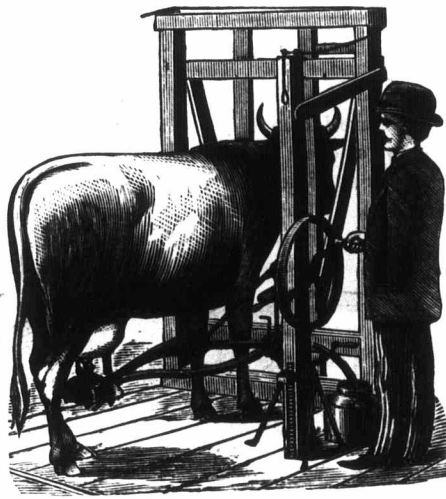
THE COLVIN MILKER.

Some years ago a Mr. Colvin invented a milker which operated upon the teat by suction, and although it drew the milk rapidly, it did not empty the udder completely, and hence never went into practical use among dairymen. This is the machine which has figured considerably in England, but it had defects which proved fatal to its success. At Colvin's death the patents came into the hands of Mr. A. A. Durand, whose attention was thus turned to the subject, and who has for some years been engaged in inventing machinery for milking.

THE DURAND MILKER.

It is only quite recently that Mr. Durand has felt warranted in bringing his milker to the notice of the dairy public, and he believes he has overcome defects in previous inventions, and is now able to milk cows successfully by machinery.

The subjoined cut will illustrate the general features of this device.



DURAND COW MILKER.

In the arrangement as here shown the machine is stationary, the cow entering the stanchion, and when milked, by simply drawing a cord, the stanchion opens like a gate, allowing the cow to pass out into the yard.

By a very simple arrangement the working of a rubber diaphragm under each "teat-cup" produces a sudden strong remitting suction, like a calf, which draws the milk and passes it into the centre reservoir and so out into the pail.

The operator places the teats in the teat-cups, then turns the crank slowly, and like four calves, he milks the cow; like them, also, the machine draws and stops drawing to swallow.

This invention more particularly relates to "cow-milkers" in which a series of diaphragm pumps are operated directly by mechanical means for extracting the milk simultaneously from the several teats of a cow. Although the invention is here shown adapted to a hand-power machine for milking one cow at a time, it is applicable to milking apparatus driven by dog or other power, or to any number of such milkers deriving their motion from a single prime mover.

The milker, which is attached to a post, has an universally adjustable arm-like support, including an extensible driving shaft, whereby increased facilities are afforded for operating and adjusting it to suit different positions or sizes of cows being milked.

To obtain for the milker a "bunting" movement and to elevate or lower it for the purpose of adapting the machine to large or small, short-legged or long-legged cows—cows with very pendant udders or contrawise, the arm-like support has connected with it an adjustable oscillating device.

The several pumps are also made adjustable up or down independently of their frame or holder—to raise or lower the teat-cups which they carry for the purpose of adapting said cups to different lengths of teats or different altitudes of the latter from the ground. This is done by means of adjustable parallel bars.

The teat-cups are of cylindrical, or approximately cylindrical, form throughout their length, and with an internally projecting rounded edge at their upper end, thus securing a close joint, free from any cutting or damaging action.

Each teat cup is composed of a nest of cups, fitted with flexible packing, and by inserting or removing an inner cup they also provide for the fit of the teat-cup to large or small teats.

We recently saw the "DURAND COW-MILKER" in operation, and watched its action in milking different cows for two or three days. When first operated upon the cows held up their milk to some extent, which was to be expected, on account of their being placed in new conditions, with several people looking on. But after becoming acquainted with the operation of the machine they gave down their milk, and were milked clean. The cows showed no uneasiness while being milked, but rather seemed to enjoy the operation, thus showing that machine-milking causes no pain or annoyance. The machine is readily applied to the teats, and can be moved in any direction desired, and from what we saw of it appeared to be a success.

Mr. Durand claims that one machine will milk twenty-five cows in an hour, and that two machines and two persons are all that is required in a dairy of fifty cows.

Of course we cannot say what the result would be in a long trial of the machine in milking, but from its uniform action we see no reason to doubt the statement of the inventor, that "cows will hold out better and yield more milk than when milked indiscriminately by hand."

The machine is certainly most ingenious in its construction, and we hope its operation will prove a grand success.

The best floor for cow stables, according to a correspondent of the Cultivator, is made of concrete, "or what is simpler and cheaper, a mixture of gas-tar and sand, with a little cement in to harden it." This can be laid immediately on the ground. Its advantages are that it is easily kept clean, either by scraping or washing, and all the manure is saved, none of it leaking through the floor, and thus being lost. This floor can be laid by anybody.

There is much excitement over the report that Pleuro-pneumonia has appeared among the cattle of Paterson, N. J. The authorities have quarantined a drove from Michigan from which three have died, and forbidden the sale of milk by the owner. State Inspector Force expresses the opinion that the disease is increasing. He says if it once spreads beyond the Alleghanies it will devastate the entire West.—[Conn. Farmer, Aug. 30.]

Stock.

Long-Horned Cattle.

When at the Royal Agricultural Exhibition, in Bristol, last year, we noticed particularly the old English long-horned cattle—more closely, perhaps, as we never have seen any of this class of cattle in America. We engaged an artist to sketch the head of one animal, which we have previously published, also the hind quarters of another animal, the tail of which was imbedded in fat, as you see in this, the correct representation. We do not pretend to claim that the long-horned cattle are as valuable stock for us as the Shorthorn, or as the Herefords, for beef and beauty; but the long-horned cattle have, and most probably will continue to retain, their admirers, especially in the old "Stately Homes of England," where people may see many hundreds of deer in one park, scores of buffaloes in another, and rabbits, hares, and pheasants by the thousand, on many of these fine old estates.

Contagious Diseases of American Cattle.

We take the following extracts from an address to the American Agricultural Congress, Rochester, N. Y., by N. N. Paren, M.D., V.S., Chicago, Ill.:

GLANDERS AND FARCY.

Glanders and farcy have prevailed, and prevail to some extent here and there in all of the western States and Territories, among horses and mules; more so than is generally known or suspected. The importance of stringent legislation for the extinction of these twin diseases, is evident to any one at all acquainted with the dangers attending their unlimited spread, and their total incurability.

PLEURO-PNEUMONIA.

Among horned cattle, the contagious pleuro-pneumonia has, during the past year, thanks to the British Government, received a *forced consideration* by our Government, and some headway has been made towards its extinction; but, as yet, no laws have been enacted by Congress for the purpose of preventing its spread from one State to another, or over the whole United States. This disease has been in our country a considerable number of years. If proper means had been adopted at the time of its incipency, we should never have seen it again, except by new importation; and until proper measures are taken, or Congress enacts laws in relation to trade and traffic between the States of the Union, we shall continue to suffer from it. One of the greatest sources of the spread of this disease is the unrestricted trade and traffic in cattle. Were proper precautions adopted in this direction, within certain limits, and within each State, and a thorough stamping-out process inaugurated, we should soon cease to hear of the contagious pleuro-pneumonia. The invasion of a district or country by pleuro-pneumonia contagiosa is insidious. The disease commonly escapes observation as it steals into a farm or country, and is consequently perhaps more destructive than any other known epizootic disease. Wherever the diseased animals have been slaughtered early, as in some European countries, the disease has not spread; but where months have elapsed before measures have been adopted, it has insinuated itself into many parts of the country, and has proved most destructive.

I feel constrained to repeat that the immense losses among live stock in this country is greatly to be accounted for in the absence of a sufficient number of men who have been thoroughly and scientifically educated in this branch of medical science. That the great multitude of intelligent farmers and live-stock owners in America should be obliged to contend with quacks and charlatans of the lowest description, while all other civilized nations, (some of them as far back as a hundred years ago,) have been provided by their Governments with amply endowed veterinary colleges, is beyond all sound reasoning—is, in fact, nothing less than a national disgrace, and justly merits the derision of other nations.

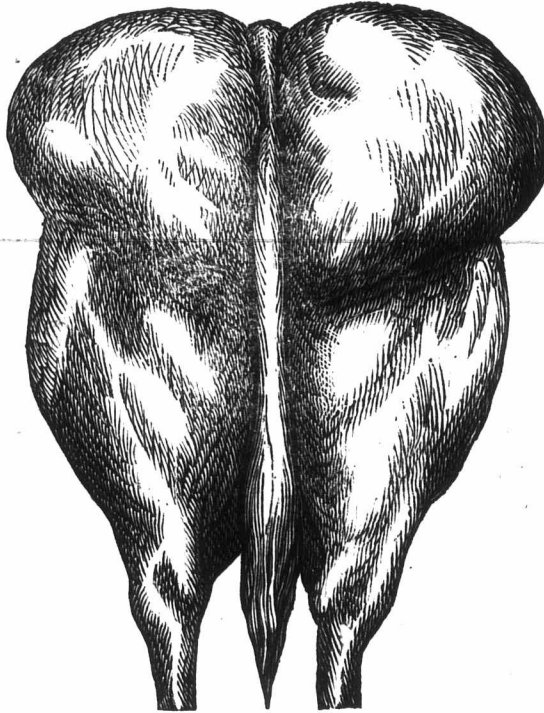
Pampered Sires Produce Puny Offspring.

Although often ignored, it is impossible for stock breeders to set aside the axiom that "like produces like." Not only does the healthy form, vigorous constitution and temper appear in the progeny, but faulty shapes, weakness, and disease are also notoriously hereditary. A great deal of preventable disease is reproduced and distributed by the use of unhealthy parents. Among high-bred animals of valuable strains it is often a serious sacrifice to consign to the butcher an animal which has shown faulty points or delicacy of constitution. Time, flesh and condition are vainly



HEAD OF LONG-HORNED OX, EXHIBITED AT ROYAL AG'L EXHIB'N, 1878.

expected to remedy the mischief. Being a mere chance inferior outcome of perhaps a fairly vigorous race, the scrub, it is urged, may nevertheless produce sound stock. The exception does, however, but prove the rule. The conservative powers of nature are fortunately great. There is a strong tendency to revert to the normal type. Inferior or superior specimens, especially of an old-established sort, do not mark all their progeny with either their shortcomings or their excellencies. But with the increasing cost of stock-breeding it



HIND QUARTERS OF FAT BEAST AT SAME EXHIBITION.

becomes more and more important to produce a maximum of shapely, sound, vigorous animals. These are not the times in which farmers can afford tediously to rear weakly animals, to waste good food on thriftless doers, to have the stables, yards or folds occupied with inferior, unprofitable, or diseased specimens.

Not only must breeding stock be themselves vigorous, profitable, free from disease, and descended from a race which have possessed these

desirable qualities; they must, moreover, be kept in conditions which will enable them to maintain and reproduce these good qualities. Many animals, and especially males, are reared too artificially; they are unduly pampered; fat is developed at the expense of muscle, insufficient exercise interferes with healthy vigor, and inborn tendency to disease is fostered. The colt may have had a gallon of milk daily until he necessarily "fills the eye," but the promise he seems to afford of size, power and stamina are not always realized. Many young bulls of crack breeds, when early forced, show to advantage, but turn out shy breeders, or produce puny, stunted, delicate calves. Fat rams are notoriously disappointing in many ways, and often beget weakly anæmic lambs. Mr. Robison, of Kelso, in an admirable paper on joint diseases of young stock, read last December at the Scottish

Metropolitan Veterinary Medical Association, recognizes this increasing cause of weakness and loss. He wisely says: "It is not, however, entirely through the medium of the breeding and pregnant animal that faulty dietary seems to operate in the production of defective and ill-elaborated tissue formation in the young. There seems good reason for believing that a like train of influences are imparted to our male stock animals by want of a correct appreciation of the dietetic conditions necessary for the development and maintenance of perfectly healthy animal existence."

To remedy these evils, young stock, whether of aristocratic or plebeian descent, should be reared more naturally, with free space and abundance of exercise, neither on the one hand over-forced, nor on the other starved or stunted. Male animals, if expected to do their work satisfactorily, should have their food properly regulated; should not, as is too common with bulls, be kept closely tied up, but be daily led out. The American system of stud paddocks ensures more effective service, and the production of sounder and more vigorous offspring.

In purchasing sheep it is judicious to select those that have been fed on soil inferior to that for which they are designed; and the best symptoms of a healthy condition are redness of the gums and of the skin at the brisket, whiteness and evenness of the teeth, firmness of the wool, sweetness of breath and coolness of feet.

The steamer from Summerside, P. E. I., brought an unusually large cargo to Point du Chene last week. There were four car loads of sheep en route to Quebec, for shipment to England, and nearly a thousand barrels of oysters for various markets.

Farm horses should, whenever the day is warm enough to bring out sweat, be allowed to wallow and scratch their sides and backs on the ground. They will get much more comfort in this way than you can give them with the curry-comb. Many rely on the curry-comb to keep their horse in order. It is the greatest nonsense one can practice. Clean, sweet hay and grain, and a clean, soft bed to sleep on, with a proper place to wallow, will insure a fine coat of hair and a strong, muscular body. Nothing else can. As a general rule, those not tutored in the management of horses will do well to consult the horse and treat him accordingly.—Ex.

In all parts of the United States tuberculosis is steadily on the increase among our cattle, and especially among the Shorthorns. Various forms of anthrax disease, especially the so-called black-leg and splenic apoplexy have prevailed among young cattle. In various parts of Texas, Nebraska, Kansas, Missouri and Illinois cattle have been affected with enzootic ophthalmia. Among sheep the prevailing diseases have been foot-rot and scab. Some restrictive laws are wanting to prevent the trade and traffic in such diseased sheep.

There have been several instances of severe losses among cattle in the State of Illinois, from the Texan cattle fever, occasioned by the transportation of cattle from the Gulf States, in defiance of the laws forbidding such transportation between the months of March and October.

On one point we may settle with a certainty of being right:—We must begin now to feed well. No matter what the cost is, cattle must be well fed from this time to midwinter, or there will be loss. The very worst policy is to permit them to fall off now. If there is to be scant feeding let it be as late as possible.—Pres. Elmira Farmers' Club.

The Guelph Exhibition.

This exhibition taking place at the same time as the Industrial Exhibition at Toronto, was not near as good as it otherwise would have been. Notwithstanding this, the display was really remarkable. In the root, vegetable and grain departments it was superior to the Toronto exhibition; the vegetables were much finer, and in much better order, and the grain shown by farmers was highly commendable. The agricultural implements were about as numerous, although there was no fine machinery hall or machinery except the implements. In quality these were about on a par with Toronto.

The horses and stock were good, but on the whole we think the stock at Toronto was the best in quality, although many of the animals at Guelph we have no doubt would be worthy of many of the prizes awarded there.

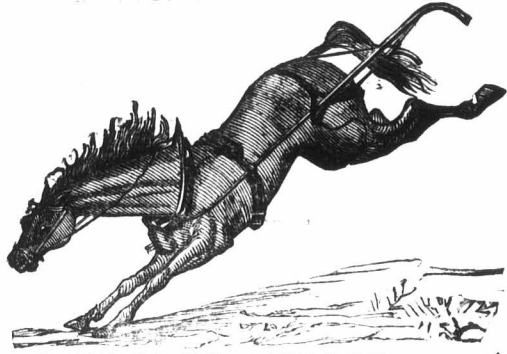
The ladies' work at Guelph was highly deserving of awards at any exhibition. The dairy products, fruit and flowers appeared to us to be quite as creditable as those shown at Toronto.

Many of the farmers here are highly indignant at the directors of the Industrial Exhibition in claiming the week this exhibition has had for its annual display, as they feel it must injure their exhibition. They think that Toronto wants to monopolize too much.

Lucky Laziness.

OR AN ACCIDENTAL CURE OF A KICKING HORSE.

Last month, when walking along Front Street, Toronto, we noticed a person driving a horse, having its harness on and hitched to the shafts of a buggy. The weight of the shafts was supported by a rope from the crupper-strap to the centre of the hind bar of the shafts. The boy driving the



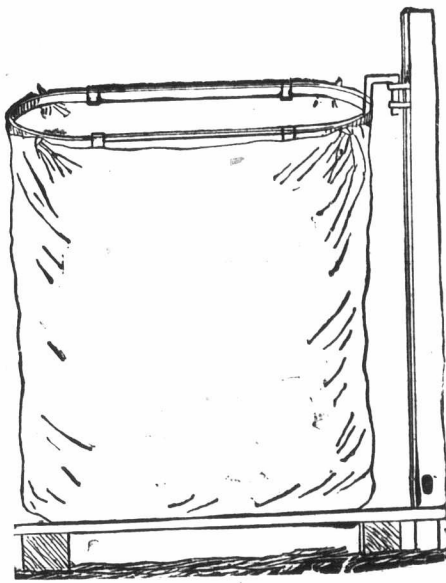
horse was pulling the shafts from one side to the other. The horse would switch its tail over the rope, but would not attempt to kick. The shafts were attached to the horse in this manner to save the boy from carrying them, to replace old ones that the horse had broken by kicking a few hours previous. An attendant on the side-walk informed us that this horse, which was a fine looking animal, belonged to a Mr. Mathieson, recently the Bursar of the Central Prison. The horse had a bad habit of kicking, and, as you may well imagine, he kicked when first hitched in the manner above described; he had three good spells of kicking, but could do no harm, and was thus conquered, as it would not kick when we saw it.

This harness may be turned to useful account by those who have kicking horses. We give this illustration to show how the horse was hitched, and how he might tire himself out without harm, and thus be conquered.

A cow giving milk requires about 80 pounds of bone material in a year. Thus a herd of 25 cows will carry off from pastures and barns a ton of bone material each year.

The Ashland Bag Holder.

This is another Yankee patent arrangement, and judging from the accounts we have received about it, we are much inclined to the opinion that most good farmers will soon have one. It consists of an oval-shaped metal strip with adjustable slide-ways, so as to fit any sized bag, and projecting prongs to hold the bag in position. At the end of the metal strip or belt is a hook, which fits into



screw eyes which are elevated or lowered so as to stand at the exact height of the bag. The bag is held open at its mouth to receive the contents.

It can easily be attached to a post or set on wheels, and will be handy in the barn. The cost, only \$1.50, puts it in reach of every one. One enterprising threshing machine manufacturer has received the right to send one with every threshing machine he sends out. By its use the service of a man or boy is dispensed with. This is a kind of Yankee invention we like to give our readers notice about.

The Northern Exhibition.

We regret that we cannot give reports of the many excellent exhibitions held throughout the country. We cannot, however, omit some brief notice of the Northern Exhibition, held at Walkerton the week of Sept. 26. This exhibition bids fair to be a successful rival of some fairs that have been longer established. The exhibition is said to have been first class of sheep; Lincolns, Leicesters, Cotswolds and Southdowns were well represented. Of agricultural implements, that now form so interesting a feature of all our shows, there was a large assortment from many of our principal manufacturers. Of the more immediate products of the soil, grain, roots, &c., there were excellent samples. In the fruit department the plums were most admired. Of this fruit the Northern Fair, representing the old Huron District, showed specimens the largest and finest flavored of their kind.

From the President's address we take a brief extract:—"Although we have good and generous soil it must have fair play; and we recommend for the falling off in the yield of spring wheat to sow more clover; avail yourself of the opportunity afforded by these exhibitions of obtaining good siring stock of all the useful breeds; grow roots, and you will not long have to complain of short crops. Another suggestion I would make—that is, subscribe for the FARMER'S ADVOCATE; you will find it a first-class paper, full of useful information and a great help to amateur stockmen."

Hog Cholera.

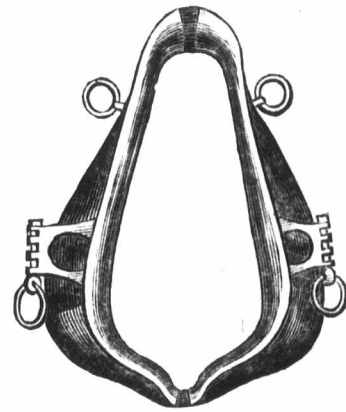
From the investigation now in progress in the United States with regard to the hog cholera we extract the following. The Government report, dated June 10th, 1879, says:—

"The number of hogs given as being produced in about one-half of all the counties of the United States and Territories was 19,932,114. Of this number, 2,727,278 were affected by disease, and of those affected over one-half died, entailing a loss on the producer or farmer of \$10,451,071. If other counties not reporting lost as heavily—and we have no reason to doubt but they did—the losses among hogs alone for that year would amount to over twenty millions of dollars."

Farmers of Canada, can we be too careful in preventing the spread of this disease among our stock? We have had the disease sent into this Dominion, and it may be again. Who can tell where disease will stop, if ever? The atmosphere would favor its spread at any time. Prevention is better than cure.

A Novel Horse Collar.

A novel collar was exhibited at the principal exhibitions this year by Messrs. Fisher & Watson, of Kincardine. This collar is made of a steel plate, prepared in the desired shape to fit the neck of the horse. The collar is then polished. It opens at either the bottom or top. Different sizes of steel plate are inserted at either top or bottom to suit the size of neck; also different sizes of collars are made. The traces are attached direct to the collar, thus dispensing with the use of the hames. The steel collar and harness weigh from nine to twelve pounds, according to the size. The weight of the common collar and harness is from twelve to twenty pounds. The best collars we



have ever used for ease to the horse are the hardest. A soft collar always galls the neck of a horse more than a hard one. One of these collars was put on one of the street-car horses in this city, during the holding of the Western Fair. The horse was a rather heavy animal, with a sore shoulder, and did not work easily in his own collar. He endured the hard work of that week, and the shoulder improved. We give the accompanying cut, which shows this new collar ready for the attachment of the traces. The collar is put on the neck by unfastening at the bottom; it is then about as handy to put on as a pair of hames. This appeared to us to be the most sensible, practical, and useful novel invention to be seen at the Exhibitions this year.

Let our rule, as Canadian farmers be—make the best meat, fruit, wheat—everything, and make the most of it. It is said that more than 5,000,000 cans of corned beef are packed annually in the State of Maine, and sold in every part of the world. By such means Americans gather in their dollars—they make the most of every product.

Winter Management of Sheep.

Sheep should have better care in early winter than farmers are in the habit of bestowing. Wintering sheep to make them live only, is not attended with profit, let prices rule high or low. Sheep are commonly neglected more in early winter than any other farm stock, for they are often the very last taken from the pastures.

If sheep go into winter quarters in a declining state, the result is a demand for extra feed and care during the winter, and a light clip of wool in the spring. When a sheep is thriving, wool grows rapidly; when a sheep is declining the growth is checked. If kept fat, large fleece; if poor, a light one. Sheep should have a little grain every day, from the time grass begins to fail in the fall until it has a good start in the spring. I would rather my sheep would have a gill of corn or oats per day from the middle of November till April, than a pint a day from January till June. There should be one object constantly before the mind of the flockmaster, and that is, to keep his sheep in a thriving condition.

Shelter is one of the first objects in wintering sheep successfully. Farmers often condemn barns and sheds as unhealthy places for sheep, when it is a want of ventilation that does the injury. It is no argument against housing because some people keep them so poorly ventilated as to injure their health. Nor is it an argument against shelter for stock, because it is improperly used. I am no believer in having sheep shut up too closely; I like warm comfortable quarters for them at night, but they should not remain there all day. They should go out, get some exercise, and have some sun-shine after a storm. We ought to know and appreciate its beneficial effects on animals.

Too large a number of sheep should not be wintered together. I believe seventy-five is enough for one lot; by no means let there be more than one hundred. There is much more danger of disease in large flocks than in small ones. The division should be made so as to put sheep of about the same strength together. Lambs should be by themselves, with a few old tame sheep to keep them tame. All large and strong wethers should be by themselves, also all breeding ewes. By this system of division all have an equal chance, which is impossible where large numbers of all ages and conditions run together.

Feeding sheep cannot be too carefully and scientifically done. It should be attended to, as near as possible, at the same time every day. Sheep, above all other animals, should have a variety of food. They are naturally very particular about their diet, are fond of dainty bits, and refuse everything not clean and wholesome; they will go hungry before they will eat musty hay or grain, or that which has been trod under foot.

No other animals should be tolerated in a yard with sheep, for it will only result in vexation and loss.—[Ex.]

Were it not for the very poor crops in the old world, prices for crops in the new world would rule very low. Farmers should think of this. Suppose that there are large crops in the old world next year and large crops here. Prices for our crops will be very low, hardly paying the cost of production. The production of stock, however, is not likely to be overdone for a long time, if ever. There may be too much wheat raised, but not too many fat cattle and sheep. The wise farmer, therefore, will enlarge his means for the production of beef and mutton, well knowing the foreign demand will continue and good prices will prevail for them.—[Rural World.]

Canada is the only cattle-raising country in the world free from contagious diseases. All other countries are more or less affected by it, which necessitates the slaughtering of animals at the port of entry, while, on the other hand, Canadian cattle can be raised for any market and shipped alive. This gives at least an advantage of thirty per cent. in favor of the exportation of Canadian stock over all other competitors that can't be so shipped.

Miscellaneous.**The Wealth of our Dominion.**

The wealth of the Dominion is such that it can not be told in figures. The natural resources of the country in timber and fisheries, and in mines and minerals, great and almost unrivalled as they are, are but a small portion of her wealth. Her great resources are in a soil as fertile as any on the globe and as vast in extent as that of her southern neighbor, the United States. In a very suggestive article on the great wheat crop of the Western States, an American agricultural paper—the Factory and Farm—estimates the wheat and corn crops of one State, Illinois, at nearly one hundred millions of dollars; the wheat crop of the State is estimated at not less than forty-two million bushels, and worth in the hands of the producer the sum of thirty-seven and one-quarter millions of dollars. It is estimated that the Indiana wheat crop is worth nearly as much as that of Illinois, and that of Michigan as more than twenty-five millions of dollars.

The wheat-growing territory of our Dominion is of greater extent than that of the United States, and, what is of greater importance, it possesses greater fertility, the produce of the Canadian North-west being from thirty to forty bushels per acre, whereas that of the Western States is only from twelve to twenty bushels. Of the Western States Factory and Farm says: "The fabulous stories told of incomprehensible fortunes being dug from the gold and silver mines of the great silver belt of the West, cannot compare with the sum which the farmer has plowed, reaped and threshed from the bosom of mother earth; and no more is the gold and silver that is dug from the earth an addition to the wealth or a created sum than is the return from the harvest gathered by the husbandman."

The great North-west of Canada, the best wheat growing territory on the continent, is yet to give forth her abundant harvests. The farmer has cultivated sufficient to prove what the country can produce. The brawny hands of the emigrant farmers from Europe and from Ontario will, we have no doubt, gather in harvests from her fertile plains such as have hitherto been unknown. Such is the wealth of our Dominion.

In Canada we are happily exempt from losses occasioned by an excessive humidity of climate. We can welcome the emigrant farmers of England to a home in this country, we having a soil and climate favorable to the production in perfection of cereals and other products. If proper measures be taken, their leaving the old home will be no loss to the Empire—they will here remain loyal subjects, and they will add to instead of diminish her power. We hope our Government and that of the Old Country will unite in aiding the enterprise. Farms can be had in our wide Dominion for every family in Britain who thinks that the acquisition of a new home would be to his advantage.

The Bulletin (Cincinnati) says: "In the first place, only the varieties of wheat should be sown that find readiest sale. In the second place, seed wheat should be selected with as much care as a prudent farmer is likely to select his year's seed-corn after this year's experience. With the improved fans in the country, or screens that are accessible to every one, there can be no excuse for sowing a single defective grain of wheat. There is just as little excuse for having smut in wheat, if soaking in blue-stone before sowing will prevent it; or for having the crop ruined by rust, if sowing a bushel or a bushel and a half of salt to the acre in the spring will prevent it."

If it pays farmers to raise scrub stock, how much better will it pay them to raise the improved breeds. Now that we have good crops, when we get the money for them will it not be wise to invest some of it in the choice breeds? It would be better in our opinion than loaning it out at interest. Buy thoroughbred males, if you are not able to buy the females, and grade up your flocks and herds.

What English Agricultural Papers Say.

The average under the main crop in the United Kingdom, adding the Irish, are as under:

Wheat, 3,048,000; barley, 2,931,000; oats, 3,987,000; potatoes, 1,384,000. These returns show an important decrease in the areas under wheat and oats, and a considerable increase as was to be expected under barley. A sunless spring and summer accompanied by excessive rains and low temperature, leave no reason to doubt what must be the inevitable result. I have, therefore, very little hesitation in estimating the probable outcome of each of these crops at one-third less than an average yield. This deficiency of grain at 50 cents per acre will amount to a loss of twenty-five millions of pounds sterling to the cultivator, nearly \$75,000,000.

At an equal rate of loss for the partial failure of beans, peas, and rye, we have an additional sum of £3,000,000 (\$15,000,000 to add, making an aggregate deficiency equal to a money loss of \$28,000,000, on our cereal and pulse crops alone. Taking the next most important crop—potatoes—£10 an acre will not compensate growers for the blight that has come upon it. On the 1,384,000 acres under this crop the loss cannot be less than £15,000,000. Taking the loss at 25 cents an acre on the areas under artificial and natural grasses it will amount to £15,000,000.—[T. C. S., in London Times.]

A PLAIN CASE.—A friend who has thoroughly tested the comparative value of beef cattle, says that his late experiments are the most conclusive of any he has tried yet. He had several grade Shorthorns and an equal number of common steers, of the same age. He gave them the same feed, grazing and treatment in every respect. When he put them into the market at the same time he found that the lot of Shorthorn grades had increased 708 pounds, while the lot of common steers had increased but 502 pounds on the average. He sold his grades at 3½ cents per pound, and he could get but 2½ cents for the common steers. This is a plain case. Now let any one count the difference, and he can decide whether he can afford to fritter away his time and feed with common stock, when he can buy Shorthorns, now so cheaply, to produce grades with. Both lots of cattle were fair representatives of their class.

WHEAT AND OATS.—In Iowa an experiment has been tried of sowing wheat and oats together. In the fall two bushels of wheat mixed with one bushel of oats were sown upon an acre of ground. The oats grew rapidly, but were of course killed down by frost. They, however, furnished warm covering for the earth, and when the snow fell among the thick stalks and leaves they kept it from blowing away. This covering prevented the winter killing of the wheat, and the rotten oat leaves and stalks afforded a rich top-dressing for the crop the following spring. The result was an abundant yield of wheat, while land precisely similar alongside of it, and treated in the same manner with the exception of omitting the oats, was utterly worthless.

WORTH OF A PURE BRED SIRE.—The gist of the whole matter is simply here. A bull, for instance, is sufficient, if rightly managed, for a herd of fifty cows. Suppose he costs \$100, the increased cost of each calf over and above that of a sire costing \$50 is simply the interest on \$50 a year, with 10 per cent. on \$50 added for deterioration as age grows on the animal. The calves are certainly worth \$5 each more than from the inferior bull. It would seem that here was a proposition that should commend itself to every farmer in favor of good breeding. Yet how many look at it in this light? Nevertheless, this is the only way in which it can be estimated.

PLASTER A DEODORIZER.—An excellent use for plaster is as a deodorizer for stables. Sprinkle over the floors liberally. It will absorb the ammonia in the manure and sweeten the air of the stables, thus making them more healthful, and improve the quality of the manure. Dry muck and road dust are also good for the same purpose, but where it is much trouble to procure them plaster is a cheap substitute.

A correspondent of the Country Gentleman says he has had an experience of more than 25 years in the use of lime, and he finds that when his land is well supplied with alkali (from lime) the clover and grasses crowd out sorrel and other sour weeds, and return him large crops of sweet hay and pasturage.

Agriculture.

Canadian Potatoes for England.

The article headed "Potatoes in England," which we give beneath from the *London Daily News*, shows us what a market there is in England for potatoes from this country. There have been some shipments from the Maritime Provinces to the Old Country, and they have paid well. The humid temperature of Britain has a tendency to produce the potato disease from which the drier climate of Canada fortunately makes us almost wholly exempt. Farmers need not be told that a good potato crop pays better than most other crops, if there be a good demand for the produce. The loss from the partial disease of potatoes in England is estimated this year at \$50 per acre, on 1,384,000 acres, a total loss of nearly \$75,000,000.

A correspondent writing to the *London Daily News* says that the consumption of potatoes in England is so great that in the course of the last three years that country has imported something like 600,000 tons, representing a total value of nearly £2,600,000, the weekly consumption of London alone being equivalent to 5,000 tons. Every country of Europe contributes more or less to the supply, but the largest quantities are imported from France, and the reports from there are the reverse of encouraging. It is estimated by a very competent authority that the potato crop will be a very bad one, and that the yield will not exceed 60,000,000 sacks (three bushels each), while the consumption in France averages about 75,000,000 bags. It follows, therefore, that if this estimate proves correct, the French will have to import instead of export. The districts in which the potatoes are grown are the Vosges and the country about Cherbourg, and it is in those districts that the rainfall has been particularly heavy. Another correspondent in reply says that the larger quantity of potatoes imported into England is from Germany. For a few weeks about June, England gets potatoes from Cherbourg; but as soon as they ripen in England, trade with France ceases, and then large quantities are brought into England from Germany between the months of August and the following May. According to the board of trade returns, the imports of potatoes into the United Kingdom amounted last year to 8,751,174 cwt., against 7,969,136 cwt. in 1877, and 6,031,341 cwt. in 1876. In the first six months of this year they were only 3,039,823 cwt., against 6,311,993 in 1878, and 2,906,587 cwt. in 1877. The countries whence England received those supplies are not designated.

Application of Lime to the Plowed Clover Sod.

The *N. Y. Times* in an article on fall fallowing, having referred to the chemical action of lime as a fertilizer, points out the advantages of applying it to the plowed clover sod:

It might be pertinently mentioned here that these facts go to prove the wisdom of the practice, popular in some well-farmed districts, of applying lime to the plowed clover-sod in preparation for the corn. The decomposition of the clover stems, leaves, and roots, is hastened by the lime, and an abundance of plant-food is furnished by the nitrification which goes on. It is interesting to find an instance of the propriety and scientific truth of an old-established custom thus proved and justified by later discoveries, brought to light in the chemist's laboratory and in the agricultural experiment stations. It is an example of well-founded principle, that known successful practical operations in the field, although founded only upon observation, are really as truly scientific as though they had originated from the chemist's investigations and the experiments of a professor. Correct practice, founded upon sufficient bases, is true science.

DESTRUCTION OF WEEVIL.—The leaves of the elder strewed among grain will effectually preserve it from the ravages of the weevil; the juice will also kill maggots. The leaves scattered over cucumbers, cabbages, and other plants subject to weevil ravages effectually shield them.

Harvesting the Root Crop.

Of the several varieties of roots grown on the farm for winter feeding there is none that bear so great an intensity of cold as the turnip. In England they are fed through the whole winter in the fields where they have grown; the degree of cold does not injure them. But here we have much keener cold, more intense frost, so that we need to preserve even turnips in pits or root-houses. Potatoes are generally stored in pits by this date. Mangolds should be taken up and stored this month; so should beets and carrots. Turnips during this month make considerable growth if the weather be at all propitious. They attain to greater size in cold weather, where an exposure to hard frost injures mangolds. The *New York World* says:

Varieties which are hard to pull can readily be lifted by running a subsoil plow with care. In gathering mangolds that are to be topped in the field some system should be observed by arranging in heaps, roots in and tops out. This precaution saves time and labor in handling. A convenient plan in gathering mangolds when the tops are not twisted off as they are pulled, is to lay them in rows, tops in and roots out, four or more rows being put in one. If two hands are working together, which is the most expeditious way, make two of these rows, leaving a small passage-way between them, the roots being on the inside. The topper in this case, with a large heavy knife, cuts off the leaves to his right and left as he goes, being careful not to cut the root itself, as mangolds if cut are liable to decay when stored.

Roots designed for market are best left awhile until the earth on them is dry, that it may fall off when loading, but those designed for home consumption receive advantage from it, as it prevents their wilting. A cool, moist cellar will serve as a storing place. Let the heaps be three or four feet in depth and covered with earth. Mangolds designed to feed after spring opens can be preserved in a pit; one dug three or four feet in depth in gravelly soil, where there is no danger from standing water, is preferable. Two modes of covering are practiced—one where the earth is thrown directly on the roots, the other where they are first covered with stalks or other dry litter before placing the earth. Whichever course is pursued, it is advised to use at first barely enough covering to suffice, adding more as the cold weather increases.

In an article designed to combat the spirit of mere "money-grubbing" which tends to make so many soulless and heartless in these days, the *N. Y. Tribune* gives the following advice to its readers. Take a part of each day, week, and year, to remember that you, too, are a man and not a mere money-maker. Study more language or science. Leave the farm or shop occasionally. Broaden your mind by friction with men. Go to the cities, to California, to Europe. Of course it will cost money. Dress, eat and furnish your house more simply; your sons and daughters will be better men and women for such simplicity. Bequeath to them high thoughts and noble living in lieu of money. Do not struggle to give your children a fortune, or to push them into a higher circle of society than your own. Give them the best education you can, but give yourself one also.

How many farmers know how many pounds of pork they have made from a bushel of corn? But few. How many farmers can tell what the cost has been to them, in raising any number of acres of wheat, corn, oats or other crops? We venture to say there is not one in ten that can tell to a nicety. This should not be. Farmers should conduct their farming operations on purely business principles, keep an account of all the farm doings in dollars and cents, like a merchant or other business men, and at the end of the year strike a balance, and carry the balance, if any, to capital stock. Every farmer should know how he stands with the world—his world, i. e., his farm—at the commencement of each year.—*Farm Journal*.

The Superintendent of Agriculture, Vermont, says that, in five years after he fixed his stables so as to save his liquid manure, he had doubled the products of his farm. The greatest waste of agriculture to-day is this waste of the liquid excrement of cattle.

SORREL IN PASTURES.—A correspondent wishes to be informed of the best mode of getting rid of sorrel in pasture land. We have, in a former number, referred to the extermination of sorrel. Of getting rid of it in pasture land, the following from the antipodes is a simple, inexpensive method:

If you wish to avoid ploughing up and laying down the pasture afresh, sow white clover upon it, but at once stock it heavily with sheep for a week or two, until the clover is braiding, when the stock should, of course, be removed for a time. If lime were readily procurable a dressing would be attended with useful results.

Perhaps some of our Canadians might try it and report on it.

The killing of sheep by useless curs, the property of men who haven't industry enough to raise money to buy a lamb, nor the sense to raise one if they had, is every once and a while mentioned by our country exchanges. We saw it reported a few days ago that eighty head had been so killed on one farm in a single night. If they had been stolen by thieving bipeds instead of killed by a gang of murderous canines, the whole country would have been aroused to hunt them down, but the dear dogs get off scot free. We are indispensed to recommend to mercy any dog that will kill a sheep, let him belong to whom he may. Shoot him at sight.—*Journal of Agriculture*.

ARTICHOKES.—A correspondent of an agricultural journal has been writing about his experience with the artichoke. After a thorough test, he is of the opinion that he can eradicate five crops of Canada thistles more easily than one of artichokes. Put them once into the ground, and rest assured they will eventually become the oldest inhabitant. He recommends them to be grown by every dyspeptic individual, as 20 feet square of them will give him all the work he wants in trying to root them out. Farmers should avoid them as they would the plague.

A sheep-grower says:—"It is folly to keep old sheep. They should be turned off to the butcher in their prime. It does not take half the amount to fatten them. When they get old and thin, in order to put them in the condition for slaughter, the whole structure must be rebuilt. Four sets of lambs are all any ewe should bear. This will bring her to five years, and this is the age when, with a little extra care, she will round up to a full carcass. Exceptions may be made when the breed is scarce, and the blood is more desirable than anything else.

A correspondent writes the Germantown Telegraph as follows:—Apple, peach and quince trees may be saved from borers by removing the grass around the butts, and applying coal-dust around them. I have tried it for two years. A neighbor tried it before I did. Boiling lye will also save a peach tree. A neighbor had three with the yellows in a dying condition, who applied lye around two of them, which were restored; the other died.

There is trouble about American smoked and corned meats, and also with canned meats, in Switzerland; so says the United States Consul there. In a communication to the Department of State he says that part of a shipment of meat, which arrived at that city about a month ago via Havre from the United States, was condemned, after official inspection, as unfit for human food.

For a most valuable remedy for heaves, which is said to be a sure cure, take forty sumach buds, one pound of resin, one pint of ginger, half a pound of mustard, one pint of unslaked lime, one pound of Epsom salts, four ounces of gum guaiacum, six ounces of cream tartar. Mix thoroughly and divide into thirty powders, and give one every morning in their feed before watering.—*Conn. Farmer*.

Oxen as beasts of draft are in some places better than horses. They require different treatment from horses, and especially in the spring, when warm weather opens. Sufficient time should be given for them to feed, and being slow of motion they should be driven accordingly. In working small farms oxen will be found more economical than horses, and a pair may be useful on a large farm.

A gooseberry plant makes almost double growth if set out in the fall. The growth in spring is very early; but if not planted till spring its growing is slow and greatly retarded.

How to Dissolve Bones for Fertilizing Purposes.

"R. T." wishes to know the best method of dissolving bones for fertilizing purposes. Some time since the information now asked for was given in the *ADVOCATE*. As "R. T." is a new subscriber, and has not had the opportunity of seeing that number, we reprint from the N. Y. World the following explicit article on the subject:—

To dissolve bones in the shortest possible time, where there is no mill to grind them, employ sulphuric acid (vitriol oil). The usual rule is to mix with the crushed bones from one-fourth to one-half their weight of sulphuric acid. When quick action is desired the last-mentioned amount should be employed. The acid may be applied as follows: Place a layer of bones eight or ten inches deep in the bottom of a barrel or tub (a petroleum barrel serves the purpose well), and wet them thoroughly with water; then pour acid cautiously upon them from a pitcher or other convenient vessel, stirring and mixing the mass with a wooden shovel; follow with another layer, repeating the process until the tub or barrel is full; allow it to stand ten or twelve hours; shovel out into a heap and mix with ground plaster, wood ashes, or similar material. Never pour water into acid. When desiring to mix them, as is often done previous to applying to the bones, pour the acid into twice its bulk of water, stirring all the time. This having been done the bones may be placed on a heap of ashes, the acid poured on, and more ashes piled on to cover the mass, which, after a week or ten days, may be thoroughly mixed together. The objection to the use of sulphuric acid by other than an expert is its dangerous corrosive qualities. Great care should be exercised to avoid spilling or spattering it on the flesh or clothes. Bones may be sufficiently disintegrated in six months' time to serve as an efficient fertilizer by crushing them and mixing in a heating compost of barn-yard manure and ashes. The mass must be kept moist, either with liquid manure or water, and a thin covering of fresh earth or plaster should be spread over the pile to prevent the escape of ammonia. This compost is best when made in the proportions of equal parts of bone and ashes with three times the bulk of both in manure. When there is only a small quantity of bones to be disintegrated it is easily done by burning a few at a time in the kitchen stove or range, saving, of course, both bones and ashes.

Barnyard Manure.

The London Agricultural Gazette says: "The farmer regards dung as by far the most important fertilizer which can be obtained. In his eyes it occupies a position much higher than that of nitrate of soda, superphosphate of lime, or any other substance. In this opinion the best scientific cultivators entirely concur, and it is delightful to find a point of great importance on which the learned chemist, the practical farmer, and the illiterate labourer are completely at one. No doubt each would approach his conclusion from far different considerations. The chemist sees in farmyard dung a happy combination of constituents, so blended as to supply the losses accruing from cropping. The farmer and his man see in the same substance an unfailing help to a growing crop. Plenty of good dung, say they, is the stuff to put under anything, whether wheat or pulse. Other manure may be good for special purposes, but good old-fashioned muck will do for every purpose. It is in itself a store of food which is gradually made available for growing plants during the entire period of their existence. It is the natural means of restoring fertility, because, in the economy of nature, the forms of plants and animals are after death returned to the earth to become incorporated with it, and then to assume new forms. Farmyard manure is quite as much esteemed upon the continent as here, although the study of agricultural chemistry is more generally followed and more highly esteemed by farmers than with us."

Professor Stewart, of Cornell University, has found, by actual experiment, that one-quarter of an acre well set in clover is sufficient to feed one cow 180 days, if cut and fed her, while if allowed to run on it would not probably last two weeks. Another advantage in the care of milch cows is that they give more milk from the same amount of food, it being found that the walking to and from pasture diminishes the quantity of milk.

Improved Seed.

The Royal Agricultural Society of England offers two prizes of £25 and £10 each for distinctly new varieties of wheat which shall combine the largest yield of grain and straw per acre with improved form and size, smooth and thin skin, full and white kernel, and high specific gravity in the seed, and with bright, firm, and stiff straw. One sack must be delivered to the society by each competitor, together with a sample bundle of straw inside of a month. A portion of each sample will be kept for comparison, and the remainder, divided into equal portions, will be cultivated next year in four localities differing in respect of soil and climate. The prizes will be awarded for the best varieties of the crop of 1880 thus cultivated under the society's auspices, if in the opinion of the judges they possess qualities which entitle them to distinction. The produce of the experimental crop of 1880 will be the property of the society, and will be offered first to the competitors who submitted the seed. The society also offers prizes of £25 and £10 for newer and improved varieties of wheat upon the same conditions as those enumerated before, except that the sample sacks shall be delivered by October, 1882, thus giving time for the development of a uniform and permanent variety.—Ex.

Saving Manure.

The ordinary compost pile is composed of any and all waste material that is made on the farm, as old sod, muck, leaves, straw, ashes, and animal manures. To be economical it must abound in vegetable and animal matters. The value will greatly depend on the quantity of stable manure, night-soil, and other sources of ammonia. Substances should always be added to prevent the escape of ammonia by absorbing or fixing it. Begin making the compost heaps before cold weather, to insure an active fermentation previous to winter. Then, putrefaction fairly started, there will be little trouble, if the heap is large enough, and fresh material is added from time to time, of continuing the fermentation all winter. Having selected the spot most convenient for making the heap, begin with a foot or more of muck, clay, or other absorbent, to which add any vegetable refuse; follow this with a layer of barnyard manure—two or three loads of animal droppings and urine to one of earth, with say half a bushel each of salt and gypsum to every four loads of material—forms an excellent compost for general farming purposes.

Climate of the Canadian North-West.

The following remarks of the *Prairie Farmer* on the climate of the North-west, is of interest to all Canadians:

It is a great mistake to suppose that the further you go north, the colder and more inclement the climate necessarily is. There are grand exceptions to this rule. Climate not only depends on latitude and altitude, but upon the great ocean and atmospheric currents. As the Gulf stream and its attendant warm air currents modify the climate of the British Isles and of northwestern Europe, so do the warm wind and water currents of the Pacific ocean modify and soften the climate of this great North-west. The flow of warm air from the Pacific ocean, striking the coast in the vicinity of Puget Sound, and flowing over the Rocky mountains where they are lowest, modifies the climate of this vast region and makes its influence felt far up into the British Provinces.

An American journalist writes:—"At a neighbor's, where I happened to be a guest, a servant came rushing in, saying that all the cows had eaten of the green clover brought up (for soiling), and that they were much bloated. My advice was asked; and I directed the cows to be put into the yard, which was only accomplished with difficulty; and I found ten or twelve cows of the best Swiss breed in this same condition: drinking water after eating clover. My water bath was at once resorted to. Everybody, including the lady-guests, went to work with a will pumping and carrying water. I emptied it, a bucket at a time, over the backs of the cows, put some garlic into their throats, and in about half an hour had the satisfaction of seeing all the animals relieved. This is a cheap remedy that is available on every farm. It was published in several German agricultural papers, and I had the satisfaction of hearing that wherever it had been resorted to in time, it had cured the afflicted animals."

GLEANINGS.

If you have a cold and heavy field which you intend to sow or plant next spring, by all means put the plow through it once or twice this fall.

A soggy and nearly worthless hill-slope has become dry and valuable for pasture, mainly the result of the application of lime. So says the report of the Connecticut Experiment Station.

Never plant evergreens on the sunny side of your house. If you want shade on that side plant deciduous trees. Norway spruce planted from six to eight feet apart makes a good wind-break for an orchard.

A correspondent of the Country Gentleman says of the farmers of the State of New York: "Within a year past fully one-eighth of the farmers of the State have failed—some say one-third, but this is too high an estimate, I think."

The New York Tribune is anxious for a greater home demand for cheese. It says: "If the cheese producers would take half the pains to suit American tastings that they do to push their wares abroad the home consumption would be doubled in half the time required for an equal extension of the foreign trade."

There is room enough for a very great increase of the acreage of grain cultivation. Of the State of Illinois fully one million square miles yet remain untouched by the plow. Illinois is a great corn-growing State, but far inferior to a more northern latitude for wheat-growing. Wheat is now little grown in Illinois, and that little is a prey to drought and chinch bugs.

The great error in wheat husbandry consists in this:—Sufficient time is not suffered to elapse between plowing for wheat and seeding to admit of that packing of the soil and that preliminary decomposition of crude vegetable matter which, on most soils, is an indispensable requisite to a good wheat crop.

At the annual meeting of the Fruit Growers' Association in Ottawa recently, Prof. Buckland emphasized the necessity of encouraging the growth of forest trees and of cultivating seedlings. He thought the public should be impressed with the immense benefits which had accrued to the country from the increased development of fruit growing in Canada during the past few years.

Oat straw is, as a rule, superior in feeding value to wheat straw, inasmuch as it contains a much larger proportion of digestible, fat-forming and heat-producing principles. Barley straw contains more nitrogenous matter than either wheat or oat straw, but in the ripe state, in which it is most often harvested, it contains but a very small proportion of sugar, more than nine-tenths of the fibre it contains being in a perfectly indigestible form.

GOOD OR BAD.—"I want more of your butter," said the merchant to a first-class butter-maker, whose product always came to his counter in splendid style, "for I can hardly get enough to supply my customers." "No, sir," said he the next day to a farmer whose butter came to market in an old tub, with not a very clean cloth over the top of it and in a rather soft condition; "no, sir, butter is very plenty and I have a good supply on hand." And he had, of that sort.

Attend to the accumulation of manure by every possible means; let it be gathered as it is made, and stored in good-sized heaps, well covered to preserve its most valuable components from being washed out by the rains; remove all road-scrappings, parings of banks, ditches, and the accumulation of rich earth on the headlands to the compost heaps, mixing them with fresh lime, sea or pit-sand, making them up into pyramidal heaps to throw off the rain.

TICKS.—Cattle grazing at the outskirts of woods, among bushes and shrubbery, and near old hedges, are liable to be troubled with ticks. Brushing the cattle over once a week with a mixture of one part of kerosene and two parts of lard oil, will protect them from the attacks of this vermin. When ticks are found on cattle in considerable numbers, they should not be removed by force, because in that case the head of the tick will remain imbedded in the hide of the animal, and, when in large numbers, will be apt to cause considerable irritation and inflammation of the skin. By applying a light coat of lard oil, or a little benzine, by means of a brush, to the body of the ticks, they generally withdraw their heads and let go their hold on the hide.—*Nat. Live Stock Journal*.

Garden and Orchard.

October—Work that Must be Done.

VEGETABLE GARDEN.

Earth up celery, but not when wet with dew. Put in trenches a foot wide and as deep as the plants are tall. Pack closely and cover with litter when there is danger of hard freezing.

Cut parsley well back—to force a new growth—and transplant enough for winter use into frames.

As frosty nights approach, cover tomatoes—enough for daily use—with cloth or straw. If the frost comes sharp enough to kill the vines, gather all of sufficient size and lay them in a warm sunny place, covering at night. They may be kept thus for weeks after the vines are gone.

Dig root crops; throw in heaps and cover with a few inches of earth to keep out slight frosts. When the crop is removed, dig the ground over and leave it rough and unranked, that the frosts may mellow it as well as kill the eggs of insects and the seed of weeds.

Rhubarb and asparagus beds are benefited by covering four to six inches deep with rough manure or other litter.

Cabbages keep best by inverting the heads, setting close together and covering with several inches of earth.

Finish harvesting root crops. If there is not room in the cellar put them in a pit.

Late turnips, parsnips and horse radish should be last cared for, as freezing and thawing injure them little. Those not needed before spring may be left in the ground with slight protection.

Use every spare moment in digging the ground and manuring wherever needed.

FRUIT GARDEN.

Transplant currants and gooseberries, and prune the old wood. Cuttings succeed much better when planted in the fall. All but one bud should be buried, and the soil pressed firmly against the lower ends.

If raspberries were not pruned last month, see to them now. Last year's wood is now worthless, either for growth or fruit.

Prune blackberries, and plant new vines.

Transplanting may continue if the season remains favorable.

As soon as the leaves fall, prune grape vines; lay down tender varieties and cover with earth.

Bend down the tender sorts of raspberries and cover the cones with earth.

Strawberry beds should be covered with straw, leaves or other material when the ground freezes.

FLOWER GARDEN.

Spring flowering bulbs, such as hyacinths, tulips, crocus, iris, narcissus, jonquils, scilla, snowdrops, and all varieties of hardy lilies, may now be planted.

Ponies may be set out.

The seed of hardy annuals such as larkspur, gilia, candytuft, alyssum and mignonette, may be sown now if you wish early summer flowers.

Gladioli, tigridia and Amaryllis formosissima should be taken up on any fine day before frost. Dry them in the sun and store for the winter in a place free from frost and damp.

As soon as the frost touches the tops of dahlias, caladiums or cannas, take them up, dry in the sun and put in a dry cellar.

If tuberoses are in bloom, pot the best of them and bring into the house to finish flowering. The bulbs should be dried in the sun like gladioli, but need keeping in a warmer place.

This is the best period in autumn for planting evergreens and hardy shrubs.

Tender roses—of the China, Tea and Bourbon class—should be lifted from the open ground and potted for blooming in the late winter or early spring.

Zonale pelargoniums, lemon verbenas and similar plants, desirable to be saved, should be taken up as early as possible, potted and moderately pruned back.

When the planting of bulbs, etc., is finished, every part of the garden should have a thorough cleaning. All annual flowers will have passed

their beauty, therefore cut off the decayed flower-stem and trim off the borders. Dig all vacant ground from one to two feet deep.

Grading, making new borders, lawns and walks, may be done in the fine weather of this month.

The bulb beds should be well covered with litter, and this held in place by boards laid over it.

Storing tender bulbs and protecting plants should be pushed forward rapidly. Put all in winter quarters.

Cover herbaceous perennials with littery manure; cover tender shrubs with straw; collect leaves for compost; clear up rubbish, and put vases and movable trellises under cover.

See that all newly planted trees are well staked and protected from the winter wind. Give the roots a good mulching of leaves or litter; it is a great benefit to them. Liberal mulching rarely injures anything, and is generally very beneficial.

HOUSE PLANTS.

Hyacinths, tulips, crocus, narcissus, etc., intended for early winter-blooming, must be potted.

Amaryllis and Cape bulbs that are now starting to grow should be re-potted.

Bring in all house plants before the frost injures them; set in a room without a fire and give abundance of air every mild day.

Callas may now be divided and re-potted.

Put in cuttings of fuchsias, heliotropes, verbenas and carnations.

Daphnes, camellias, Chinese primroses, and any other greenhouse plants that require larger pots, should be shifted, but only if the pots are full of roots.

Be sure and keep potted bulbs in a dark cool place until well rooted.

Do not keep plants too warm—sun heat is generally sufficient at this season of the year.

Planting Fruit Orchards.

The ultimate success of fruit orchards depends upon the judicious selection of soil, situation, trees, and their proper arrangement and management.

Pomologists very generally agree that fall is the season for lifting seedlings and rooted layers for stocks. Many of them go farther and advise planting these in the fall, as this saves handling, avoids all danger from loss in heeling-in and gives the trees time to throw out and mature new rootlets before the severe summer heat and drought comes on, which is not always the case in spring planting. Another argument advanced in favor of fall planting is the leisure time occurring at this season, which naturally induces more extended orchards with work better done than during the rush and worry of the spring season.

The best site for an orchard varies with localities, hence the wisdom of gaining in the immediate neighborhood the knowledge required. An eastern and southern exposure on low ground is to be avoided in sections where late and severe spring frosts prevail. If high winds from the west and north are to be guarded against, it is recommended that a situation be chosen where some natural protection, as a belt of woods or a hill, will break their force. If no such protection already exists, it will be wise to set out, at the same time the orchard is planted, a border of some rapid-growing tree, which will form a protection by the time the fruit trees have come into bearing.

Selecting the varieties for a fruit orchard is a most important point, and should be made in reference to the special purpose for which the fruit is intended. Low, stout trees, other things being equal, are preferable to tall, slender ones, and especially should this preference be observed in elevated and exposed positions.

The square form, in rows the same distance apart and an equal space between each tree, is the usual plan practised in setting out orchards. Twenty-five feet is the distance commonly allowed for the average apple orchard. A good authority recommends thirty feet in all directions as none too many for standard trees. These distances are, of necessity, only approximate, there being a great difference between the sizes and varieties of the same fruit, and also in their habits of growth.

The season previous to planting the soil should be at least twice plowed and enriched with suitable composts. When this has been done planting an orchard is a simple matter, holes being dug deep

and wide enough to admit the roots. Where the soil has not been previously prepared planting requires considerable labor, especially if there are any defects in the soil, which ought to be remedied at this time by the aid of composts. Dig large holes and line the bottom with a good bed of compost, composed, if the soil is too compact, of sand, leaf-mould, muck, &c., to render it more porous; and, if too light, of clay, stiff loam and ashes, to render it more retentive. Lime should form a part of these composts, especially for apple and pear trees. Half a peck of lime mixed with the bed of each tree, in soil not naturally calcareous, has been recommended. In soil adapted to fruit culture, if in a good state of tilth, there is no necessity for either large holes or compost. The compost having been laid and covered with a layer of pulverized soil set the tree in the hole, carefully adjusting the roots, and fill in with fine earth, which should be firmly trodden down around the tree. Where the trees are larger or in exposed positions one or two stakes should be placed with each tree. Mulching is always advised; it prevents the moisture of the soil from evaporating, and maintains a uniformity of heat. A deep mulching is required for trees planted in the fall to prevent the frost from penetrating to the roots and heaving the tree out of the ground.

Growing the Apple in Sod.

From a paper read at a Michigan Horticultural Society by Mr. Goshorn, we give the following extract:

No man can claim to be a good grower of the apple, or is intelligent on the culture of the apple, who still plants or grows this fruit in sod; I mean to grow it in a commercial point of view. There is a way in which fruit of this kind can be grown in sod, under certain circumstances. As in a garden or lawn, where the grass is a part of the object in view; but where the fruit is the prime and only object, the soil must be cultivated. In all cases, where trees, plants and vines must be grown in sod, the grass should be cut often, and not removed from the ground, but be allowed to lay where it falls, and there to decay. Under this system the trees have an equal chance with the grass.

The largest size possible to be obtained can unmistakably be only grown by thoroughly cultivating the soil. When the tree is yet young, and not of bearing age, there is at least three times more growth in a thoroughly cultivated soil than in sod. And when the tree becomes of a bearing age, the one in cultivated land will bear more fruit than the one in sod, for the simple reason that the larger tree has more capacity. The growth of the tree, or its increasing capacity for bearing, is no less important to the market fruit grower than the value of the fruit itself. It would be about as wise to plant corn in sod, with the view to grow both corn and hay together, as to expect good growth for a tree in sod; or to immediately seed down the ground after planting the corn, and expect a good crop.

Another wrong practice in the management of the apple, is to seed down the orchard after it gets into bearing. An apple tree under which grass is sown when of a bearing age and size, would produce like results in comparison to one that had been well cultivated.

Another important matter in the culture of the apple is to fit the tree so as to winter well. The tree in sod does not get as much vitality during the growing season as the one well cultivated. In case of a dry summer, sod will dry out the ground so that there is little moisture left for the tree to winter on. A tree requires a store-house of moisture to winter on; and unless this is provided for by either cultivating the ground, or by an abundance of fall rains, it is exposed to great injury by a dry, cold winter.

What course of culture shall we pursue? My own practice in this matter is to commence in the spring by plowing the ground somewhat shallow with a one-horse plow. After that I use the cultivator. Always, after a rain, the ground becomes crusted over, but it should be broken with the cultivator as soon as the soil is dry enough to work. I never work the ground wet. I am careful in this. By stirring the soil often we keep it moist; and this facilitates the growth of both wood and fruit. We must have an eye to keeping the soil mellow at all times of the growing season. To keep the weeds down is not enough; or in other words, it does not cause sufficient work in the soil to keep it in proper condition. Weeds will trouble us little when we cultivate often enough to keep the ground as loose as it ought to be in order to secure the best growth in both the fruit and wood.



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Farming in New Brunswick.

SIR,—In New Brunswick the farmer is doing fairly, although all farm produce is low. Wheat, which has been cultivated to a limited extent for some years, has for the past two been raised with most gratifying results. The present season is the best ever known in New Brunswick for wheat; farmers will raise from 15 to 25 bushels per acre. This part of the Dominion has been greatly injured by the farmers cultivating buckwheat to too great an extent. This crop leaves the land unfit for the successful raising of anything else, while farmers cannot raise as many bushels per acre as they can of wheat; besides, wheat is worth four times as much. If wheat continues as good as the present season indicates, farming in New Brunswick will pay well. We have not as good a climate in some respects as that of Ontario, but in many ways we have an advantage over the Ontario farmer. We have the marsh mud and other manures in greater quantities, or at least more easily obtained, than the Western farmer.

It is of very great importance to all farmers to have frequent changes of seed; this matter has not had that attention which it should. I am inclined to think that the success in wheat-raising here is, in part, at least, owing to the frequent change of seed, and also to a careful attention in selecting the cleanest and best varieties.

I notice that farmers are cultivating Indian corn, which is an excellent food for milch cows. Cows are generally put in the aftermath after haying is over; this is a bad practice, but the use of this corn will be a substitute, thus leaving the hay land in a better condition for a crop the next year.

B. H., Elgin, Albert Co., New Brunswick.

A corn grower asks: "Does smut in corn cause the death of cattle that are fed on the fodder, or husks and stalks that are left in the field?"

[The death of cattle in several instances in the United States, where corn is a general crop, has been attributed to feeding without restraint on stalks and husks of smutty corn. There are, however, some who say that smut has never been the real cause of the death of any animal. A Mr. Dawson says he is very certain that smut in corn never killed an animal of any kind, but that the great amount of dry shucks that a hungry animal will eat is the real cause of death, and not smut. A great many farmers compel their cattle to rely for their subsistence entirely upon what they find in the corn stalk field, and they fill themselves so full that the mass of dry shucks impedes if not entirely suspends digestion, and no amount of drugs will give action to the bowels. He thinks the thrifless farmer loses most in this way, as he compels his cattle to live in the stalk field. His plan is to feed his cattle at the barn on corn and hay, to about half their needs, and turn them on the stalks for a few hours each day, and let them eat whatever they can find, whether of corn, smut or shucks, and he never loses any, and is satisfied he never will with this management. They will not so greedily eat so many shucks when fed in this way. Mr. D. thinks it quite essential that the bowels of cattle should be kept somewhat loose by a moderate supply of corn, and then indigestion will not take place. When he takes his cattle off grass he feeds them a little corn and good hay, increasing the corn from day to day until half the need is thus supplied, and no danger in the stalk field need be feared. If cattle are to be kept cheaply, they had better be fed on straw and hay than to allow them to make their living in the stalk field.]

Farmers' Clubs.

GRANGES OR FARMERS' CLUBS—WHICH?

SIR,—As a class farmers are very slow to move as an organized body. They are patient in enduring wrongs and tardy in the resentment of the injustices to which they are exposed. It is not that they are less intelligent than other classes, but because of the partial isolation in which they live; this prevents them from uniting in expressing their wants and grievances. But sooner or later the time is coming when their voices must be heard and heeded. The long winter evenings are now approaching. We should assemble and discuss our position and prospects, and devise plans for our future operations.

It was at one time thought that the Granges were going to be a benefit to us, but the apathy and dread of loss have thoroughly disorganized that Order. The injurious trading which has absorbed too much attention, the losses that have already been sustained, and the losses that most assuredly must fall on the Granges by insurance and banking, together with other causes, have already spread to such an extent that the best farmers in this section at least will have nothing to do with it, and many of the most intelligent farmers in other parts are abandoning it. The oath that binds a man to aid and do all he can to aid the Order is the tie that prevents many from acting openly and fearlessly in stepping boldly from its chains. I say that because a Granger is not a free man, he is a bondsman. Many of the organizers have acted in honor and have attempted to do good to their fellow farmers; there are others who act from the sole desire of pecuniary gain. The organizers got a fee and made money; the traders turned middlemen and got their percentage. A good profit has been realized on every scrap of paper and every tawdry ornament. The monthly dues have been exacted for years and not the slightest benefit has accrued to themselves or the country. All the goods purchased could have been purchased as cheap—often cheaper—at wholesale at any time.

There has been some amusement and some training to order that may have been beneficial, but no Grange that I have yet heard of has done as much good as Farmers' Clubs, and the Grange has injured these clubs. I would suggest that farmers in each section should at once reorganize their clubs and hold discussions on subjects of importance to them. I have read the *Granger* and the *Advocate*. I consider the latter a most valuable journal and one that has done much good; at the same time I think you are rather too severe on the Board of Agriculture and Arts. They may not have acted right in all respects, but what have they to do with stock diseases? Veterinaries surely can attend to that. I think they are wrong in retaining the Secretary. I should commend you to take a moderate course. I also think that you are rather too hard on Manitoba; from accounts I have received I am inclined to think favorably of that country.

Should you think this deserving a space in your journal, you are at liberty to use or burn it, but not to give my name or residence.

EX-GRANGER, Toronto.

[We have asked for fair and open discussions, therefore we feel in duty bound to insert this, although it may offend some of our readers.]

SIR,—Can oleomargarine be known with certainty as distinct from butter? If so, how are they to be distinguished? DAIRYMAN, NISSOURI.

[Oleomargarine, however well it is made, can be known from genuine butter by its peculiar odor. "At a fair in New York City ten tubs of oleomargarine were smuggled into the fair in the following manner": Parties who are interested in the manufacture of this product induced other persons who were friendly to forward the tubs to commission houses as genuine butter, with instructions to enter them for competition at the fair. They were so entered by these houses, it is said, in good faith, without a suspicion of what the tubs really contained. They were cunningly sent from different States, in order to create no suspicion. The look of the stuff was quite respectable, nor was there any peculiar odor to it. But when the trier, or a knife, or any other piece of metal was put into it, the nostril immediately detected the strong smell of tallow upon the metal, which seemed to develop it at once. The oleo was undoubtedly entered for the purpose of testing the judges, and in a belief that it could not be detected from true butter by the best of them. It was very quickly found out, however, in every case, and the packages were left open for the inspection of the curious.—EX.]

Improving a Farm.

SIR,—You would greatly oblige me by giving your opinion on the following: I have bought a farm of a pretty heavy clay loamy soil, which seems to have always been plowed very shallow; for if I plow it deeper than five or six inches, I come into pure clay which seems to have never been touched before. Now, my intention is to plow it deeper, to mix the wild clay (as I call it) with the surface soil, and work it thoroughly to get the soil mellow to a greater depth, and give the water more chance of soaking into the ground. What would you advise me to do? On some fields, or parts of fields, Canada thistles form a great part of the crop. I intend to summer fallow them by plowing and harrowing them thoroughly several times, and then sow buckwheat thickly on the most thistly parts and plow it down when about three or four feet long for green manure; then sow it with fall wheat and seed it down with grass. I also intend to draw the longest and most fibrous manure on the most clayey spots, and the shortest on the more mixed spots. Do you think this is a good plan? After writing the above I notice in your valuable paper that clover, when sown thick, is a good thistle exterminator, so I will try that, too. I am at present a reader of the *Advocate*, and I intend to remain so.

C. L. W., St. Jacobs, Ont.

[The first step for any permanent improvement must begin at the foundation, so with your farm; underdraining will do more towards making a good farm than all your surface cultivation and manuring. Plow it deeper than it has been; leave it as rough as possible in winter, to admit of as much frost and air as possible. We have seen the most stubborn clay soils plowed in England in the driest weather, when the clay would turn up in large clods, perhaps two or three hundred pounds in weight, requiring four heavy horses to draw the plow; this would be equal to about three span of our ordinary horses. This kind of work requires a strong plow, good teams, a good driver and good plowman. This admits the fertilizing elements into the soil; rains, sunshine and frosts will all be fertilizers to the ground if the surface is in a rough state to admit them. Plowing clay land when it is wet and easily turned over has no such beneficial results. We have tried both plans and the result on the crop is incredible. Try a small piece in this way—say one field or part of a field. Be sure and have your plow, harness and men all of the right stuff. One acre plowed when dry and hard may cost you as much as plowing eight acres when wet. We would rather take the profit of the one acre well put in than that from the eight. If you underdrain, the interest on the outlay may cost you as much as to plow four acres more. Then we would rather take the profit from the one acre than from the twelve acres. Your system may do after the foundation is laid.

A mere summer fallow, as following is too frequently done, will not totally exterminate Canada thistles. To do it effectually not a single leaf of a thistle should be allowed to show itself on the ground for one year. The next year, if a hoed crop is put in and no thistle allowed to the surface to breathe, then you will have a clean field that may stamp you as a good farmer. Hard labor is requisite in any business to be successful. There can only be one master on a farm, that is, either the farm or the owner. If the farm is allowed to be boss, you may be sure it will run wild and walk out of your possession. Then you will have to join with other shiftless farmers and bring yourself, as many are doing, beyond the pale of comfort and civilization, amidst mud roads, wild life, and indescribable hardships and privations. Stick to the farms you now have; put energy and management together. The good farmers in England and in the eastern part of America are enjoying all the comforts this world can afford; the bad farmers must shift as best they can.]

We give the following from an exchange in reply to a correspondent who wishes to know how to treat old orchards to the best advantage:

To rejuvenate old orchards, cut out all the dying wood and three-fourths of the suckers; scrape the trunks of the trees completely, removing all the old, hard, broken bark; wash with a preparation of whale-oil soap and water, a pound of the soap to a bucket of water; and give the orchard, not merely under the trees, but every part of it, a heavy top-dressing of good barn-yard or compost manure. If there is any life or productiveness in the trees this will bring it out.

Cows Gnawing Bones.

"Stockman" enquires: "Why do cows, when they have good nourishing pasture, have a craving for food that seems unnatural to them? They sometimes chew and swallow bones with apparent relish, if any be within their reach. They even gnaw old shoes and wood."

[Their pasture does not possess all the materials of food they require, though it seems rich and nutritious. Something more is needed to build up their frames and keep them in healthy thriving condition. It is not only the flesh that needs daily food; the bones also need suitable food to build them up and to replace the constant waste. It is necessary that animals be supplied with or have access to bone-producing materials. Some materials are designed to produce flesh; some to produce fat and heat. In addition to these, animals need such substances as are bone-producing, such as phosphates of lime and other substances. If the food of animals be deficient in these, they have an instinctive craving for them, and this induces them to gnaw bones, etc. There are many pastures that are deficient in bone-producing material, and this needs to be supplied. From the New York Tribune we reprint the following item on the subject: "If soil is naturally deficient in lime-salts and has been scoured for some time by the sale of all its products, or by heavy stocking with breeding cows, the animals will soon come to show the lack of the mineral food. Now, in all such cases the artificial supply of phosphorus and lime will meet the need. The daily administration of phosphorus leads to a larger development and a firmer texture of the bones; and even to an increased deposit for the repair of broken bones. A cheaper mode of supply is to give bone ash in the food daily. Get sound bones and burn them to ashes, then supply the fine powder to the amount of one or two ounces to each animal daily in the food. This obviates the risks of choking by the accidental swallowing of the solid bones, of injuries to the teeth and soft textures in the process of chewing, and of the introduction into the system of putrid products of the marrow and other soft parts in a state of decomposition. Besides the supply of bone-dust, it may be needful to give tonics and stimulants to arouse the now torpid digestive and assimilating organs to a more healthy action. A liberal supply of salt and of the purest water will be essential. In place of the bone-dust wheat bran or rape cake, grown on rich land, may be employed to supply the lime salts. When this can be availed of it has the advantage of furnishing the mineral elements in their natural combination, so that they will be more readily absorbed and assimilated."]

SIR,—Can you, or any of your readers, inform me how to follow bees—to find bee trees in the woods? If you can give me any information on the matter you will very much oblige, as I am troubled with robber bees, having lost the honey out of three good hives. I believe that bush bees have been the cause of this, though I closed up the hives so that only one or two bees could enter at a time; but the honey is gone.

Also, can you inform me where I can procure the sweet balm cruse, it being used by some for swarming bees into the new hives.

H. G. S., Gorrie, Ont.

[The following from an American exchange, respecting the "Bee Hunter" and his method of following bees, may be of value to our correspondent: "In autumn, when bees have almost finished their labors and are carrying home their last loads, the Bee Hunter may be seen with his bee-box in hand, the bottom of which is supplied with a choice piece of honey-comb. In the middle of the box is a glass slide to prevent the bee, when first caught, from becoming besmeared with honey, as in that case, when liberated, she would not return direct to her home. A bee is found upon a flower, when the hunter, carefully placing the box underneath, claps the cover over the bee, and withdraws the glass slide as soon as she becomes quiet. The bee soon fills herself with honey, the cover is removed, and she is ready to take her flight. Circling upwards, mounting higher each time, until assured of her location, she darts in a 'bee line' to her home in the forest. This is the moment seized upon by the hunter to ascertain the direction or line of the bee. The box is allowed to rest on some convenient elevation, as the bee soon returns accompanied by others, and the hunter is then enabled to stake out the line, when he carefully covers the box, and carries the bees several

rods to the right or left, opens the box and takes a "cross line," which enables him to find the tree where the lines meet. The hunter sometimes travels quite a distance in the direction of the tree when the angle is very acute—showing that the tree is at a great distance—when he lines again, and also takes a cross line. If the honey happens to be found in a hollow trunk and well protected, a large fire is built at the foot of the tree, which is cut down under cover of the smoke, but when the entrance is low they are often driven away before their work is done. Several hundred pounds are often found in one tree, requiring a cart and team to carry off the honey." Perhaps some of our readers can answer the other query of our correspondent.]

SIR,—We Canadian farmers owe you no little credit for the stand you have taken in warning the Government and the Board of Agriculture of the imminent danger to our flocks and herds by allowing stock from the United States to be sent into the Dominion. I have read many good articles in your paper on this subject. There can be no reasonable doubt that contagious pleuro-pneumonia has been and still exists in the States, though attempts of denial have been made; and I read in the Toronto Mail, October 3, the following item:—"In consequence of the prevalence of the foot and mouth disease among 1,300 sheep, lately arrived in England, the Privy Council is about to issue an order, placing American sheep in the same category with the cattle." Farmers of Canada should insist on the strictest prohibition of sheep, as well as horned stock, from the States into Canada. No half measures will do. What is our Agricultural Association about that they never take action in such matters. The introduction of these contagious diseases into our country would be incalculable injury. So, Mr. Editor, stir up the Government and the good-for-nothing Association. It is necessary for Canadians to watch their interests. If they keep the disease out of the country the exportation of our sheep will continue to be a profitable business.

London Tp., Oct. 1879.

STOCKMAN.

SIR,—I have seen in an English paper lately a complaint of the appearance of scab in sheep imported into England from the United States and Canada, and though none that were imported from Canada were at all diseased, the introduction of it from our neighbors gives apparent grounds for objections to the importation of live stock from any part of America to England. It is well that exporters and breeders in the Canadian markets should have warning to ship no animal that has the slightest symptom of any disease, and the ADVOCATE having so wide a circulation in the Dominion, is the best means for the purpose. There is no excuse for farmers permitting scab in their flocks when the remedy is so simple and inexpensive. Tobacco is a simple and effectual remedy. Two years ago a farmer bought a flock that had been quite scabby. They were dipped twice in tobacco juice, and there has since been no sign of scab in his flock. I can add my own testimony to its being a sure remedy. A. O. F., Kingsville.

[We do not know that there has been any scab in this part of the country. However, your warning can do no injury, and your remedy may some time prove useful. "Fore-warned is fore-armed."]

SIR,—I wish you to tell me through the ADVOCATE what quantity of bone or phosphate should be used as a fertilizer for wheat. My land needs a change from barn-yard manure. ESSEX FARMER.

[The amount of bone or phosphate to be applied to wheat depends on the condition of the land. If in good heart or fair condition, one hundred and fifty to two hundred and fifty pounds to the acre; and if the land is so poor or exhausted that you fear young grass will not make a good catch, then apply three hundred to four hundred pounds to the acre. The above amounts are for fine ground raw bone and for the best class of phosphates. If the bone is coarse or the phosphate poor, then much larger amounts must be used to obtain the same results. We get the best results from this bone by drilling in with the seed for a small application. But if you want to make a heavy application, of say three hundred pounds, drill a portion of the bone dust separate and then go over the same way, finishing with the bone and wheat mixed in the drill together.]

Transplanting Evergreens.

SIR,—I have been unsuccessful in trying to grow cedars and pines taken from the woods. I transplanted a number of cedars, wishing to have a durable evergreen fence by my front yard, but they all died. A few words on the subject in your paper would confer a favor on me. Would this be a good time to transplant evergreens?

ELGIN FARMER.

[The failure of evergreens and other trees to grow when transplanted arises from taking them up from their places without sufficient roots, or from allowing the roots to dry before replanting, oftener than from the method of planting. The trees should not be too old and large for removing. The holes should be prepared beforehand, and be large enough to allow the roots to be spread to their full extent. It is well to steep them in water or in diluted cow droppings, if they have become at all dry. When planted mulch with fallen leaves or litter. This will save them from freezing in winter, and preserve the moisture in summer. Some prefer planting in spring and others in the fall, and we have never had any failures in fall planting. No evergreen is more certain of growth than the American cedar.]

Ticks.

If you have not yet killed the ticks on your sheep by all means do so before the cold weather sets in. You will save ten times the cost of the material in feed, in wool, in mutton and in the lives of your ewes and lambs next spring. Every good sheep farmer in Britain takes care to have the ticks killed once a year. Mr. Briggs, of Hamilton, has now introduced an effectual remedy that will pay every farmer to use. It can be sent by mail to any part of this Dominion, and thirty cents expended for it may save you the loss of some of your sheep—the most valuable class of farm animals, as they are paying better than any other branch of your business. Keep them all right and they will pay you much better.

Useful Hints.

Sprigs of wintergreen or ground ivy will drive away red ants; branches of wormwood will serve the same purpose for black ants.

Coal ashes sifted very finely, thoroughly ground, and mixed with oil, make a good cheap paint. Any coloring may be added.

To restore the color of a marble mantelpiece which has become stained, mix up a quantity of the strongest soap lyes with quicklime to the consistence of milk and lay it on the stone for twenty-four hours. Clean afterwards with soap and water.

Papering and painting are best done in cold weather, especially the latter, for the wood absorbs the oil of paint much more than in warm weather; while in cold weather the oil hardens on the outside, making a coat which will protect the wood instead of soaking into it.

TO REMOVE MOTHS.—Moths will work in carpets in rooms that are kept warm in the winter as well as in the summer. A sure method of removing the pests is to pour strong alum-water on the floor to the distance of half a yard around the edges before laying the carpets. Then once or twice during the season sprinkle dry salt over the carpet before sweeping. Insects do not like salt, and sufficient adheres to the carpet to prevent their alighting upon it.

To prevent flat-irons from rusting, melt a quarter of an ounce of camphor, and half a pound of fresh hog's lard over a slow fire, take off the scum, and mix as much black lead with the composition as will bring it to the color of iron. Spread this over the articles for which it is intended. Let it lie for twenty-four hours, and then rub it well with a dry linen cloth. Or smear the iron over with melted suet, and dust thereon some powdered unslaked lime from a muslin bag. Cover the irons with baize in a dry place when not in use.

Marketing Inferior Wheat.

SIR,—I wish to call your attention to a grievance in the Chatham market. The wheat is sent to market in a most unfit condition. In fact, it is complete robbery to bring such unprepared stuff to any market and call it clean wheat. Is there no law by which such nefarious transactions could be prevented? The loss to the country must count up high in the thousands. We that sell good grain should not be compelled to have ours mixed with such rubbish as comes to market, greatly to our detriment. Our wheat will rate No. 1, I believe, with any raised on the continent; and it is too bad to see some farmers bring such stuff, and call it wheat, and ask the highest price, bringing down the price of No. 1, and lowering the quality of Chatham wheat. Good wheat brought to market is mixed with the inferior article, and the mixed wheat is then marketed as No. 1 Kent; when, in fact, the buyer has deducted two or three cents a bushel, which he puts in his pocket, and the good wheat becomes No. 2 in grade with other wheat.

B. R., Dealton, Ont.

[It is to the true interest of the farmer to bring his produce to market in the best condition, but there are some, we fear, who do as our correspondent says. There is not sufficient difference made by buyers between the different samples of grain. Were they more exact, it would eventually be better for all parties.]

SIR,—The value of muck as a fertilizer is a disputed point in this neighborhood. A farmer who applied it to fields of grain crops and of root crops says he never saw any good results from it. I read an article on the subject some years ago in the *Advocate*, but have mislaid the paper. I would request a few lines in the current number, as you are well posted in all points relating to the farm. S. D., Chatham.

[The case that you mention of muck having failed to produce any perceptible effect is not at all an unusual one—not because muck is barren of the elements of fertility. There is often in it not less than four or five per cent. of ammonia, but is not in a form available for plant food. It is combined with acids, and is in consequence insoluble. Muck, when dug from its bed, should be left for a time exposed to the influence of the atmosphere, till the acid liquid has quite oozed away. It may be then mixed with stable manure, and in this state it will become slowly soluble. This compost is a good fertilizer for either light or heavy soils, especially for pasture or root crops. If it be composted with lime or ashes, it is more speedily decomposed, and in a short time becomes a valuable fertilizer.]

SIR,—Will the cut or grub worms be more likely to destroy the corn on timothy sod if plowed this fall and skim-plowed in the spring, than if plowed next spring. S. L. M.

[Plowing late in the fall is one of the best means known for destroying insects, if they are turned with the furrow. In the case of cut worms those that are left alive will continue to eat until destroyed, since they are of only one year's growth in the soil. The white grub requires three years to complete its growth in the soil. The third year it does little or no damage to crops. The second year, or when half to two-thirds grown, is when it does the most injury. If it be ready to change into the beetle state next year, but little trouble may be anticipated. In any event fall plowing, say to a depth of six or seven inches, will assist in destroying the larvae.]

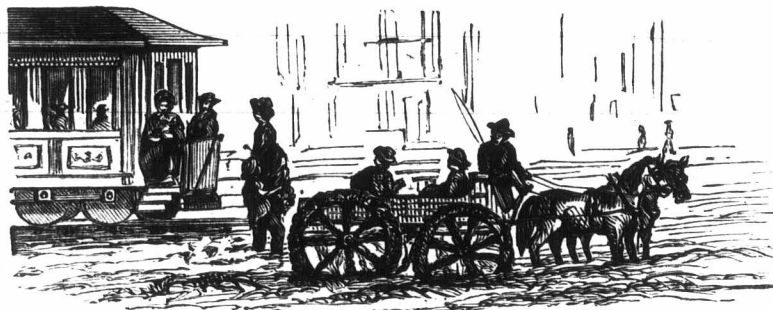
A great many farmers make a mistake in buying their curry-combs. They buy them in the spring about the time when they get a new hired man. The proprietor tells his man to cleanse his horses well. So the new groom, with the new comb, scratches the horse up and down, backward and forward, for five or ten minutes. I would like to see a horse that would not get angry with such treatment. I always buy my curry-combs in the fall—November or December is a very good time. At that time the horse has a very thick coat, and there is not much danger that you will scratch a horse so badly that he will bite or kick at you. I know a man who always has horses that kick or bite, and I am satisfied that it is his own fault. He licks and kicks his horses more in one week than I than I do mine in five years.

Manitoba, No. 4.

The exhibitions during the past 6 weeks have occupied so much of our time and attention that we have had to shorten our Manitoba article this month. But we have some notes to prepare yet. The accompanying illustration shows the mode of carrying the lady passengers from the station to the stage, namely, the ladies stand on the bottom step of the railroad cars. The stage driver grasps them round the legs, and transports them safely through the mud into the muddy conveyance, and thence to the hotel. But good mud must not scare a good settler, although Manitoba mud will always be a horror to the cleanly housewife. But fortunately mud does not last all the year. We speak of the country from observation. Had we been there in a drouth, and depicted it truthfully, some would not be pleased; had we been there in winter and been caught out in a storm, we might not be heard of again.

The Potato Crop in New Brunswick.

Comparatively few of our own people are aware of the extent and value of the farms in the county of Aroostook, and the rapidity with which improvements are being made since facilities have been given to send products of the field and forest to the great markets on the seaboard.



It is impossible to travel through the country without observing the great extent of land planted with potatoes, and the fine appearance of the crop. It is no unusual sight to see farms with ten, fifteen, twenty, or as high as forty-five acres of these roots. There are now twenty-two starch factories in the country, each of which is capable of working up from 1,500 to 2,500 bushels, or say an average of 2,000 bushels each per day. Those factories will run until about the middle of November, making at least sixty days' work, after they commence. This will give for each factory 120,000 bushels for the season—a total of 2,640,000 bushels manufactured into starch within the two months. Should the weather continue mild as late as it frequently does, the quantity manufactured may be largely increased, the crop being so abundant this year that there will be no necessity to stop for want of raw material. The price paid for the potatoes at the factory is, in most cases, 25 cents per bushel, or a total, for the above-estimated quantity, of \$660,000. This is a large amount of money to be distributed among a portion of the farmers of a county for one kind of produce. A low estimate places the whole crop of the county at over five and a quarter millions of bushels, and at the same price as paid by the factories, the value will be over \$1,300,000. But the price generally obtained for the portion sent away is much higher than paid by the factories; so that the amount above-named may be received and enough retained for home consumption and seed next year.

A correspondent of the *Rural Messenger* has had good results from the application of lime, wood ashes and old iron put around the roots of fruit trees that were not doing well, thus restoring the trees to a healthy condition and improving the quality of the fruit. As a wash for mossy trees he gives the following: Heat an ounce of sal-soda to redness in an iron pot, and dissolve it in one gallon of water, and while warm apply it to the trunk. After one application the moss and old bark will drop off, and the trunk will be quite smooth.

Poultry.**Which Large Breed of Poultry is the Best.**

Each of the large breeds has its friends and its merits. Without entering into a description of the various breeds, or specifying the distinguishing merits of each, and without meaning to say anything to the detriment of any other breed, we would say that the Brahma usually proves satisfactory, and that we should just as soon have it as any we know.

The house need not be so very large; fifteen feet square will answer for seventy-five chickens. But it must be well ventilated. Have the yard just as large as you conveniently can, the larger the better.

Lice may be got rid of by syringing with a solution of carbolic acid. A preventive will be found in thoroughly washing the walls with a strong lime wash, containing a pound of sulphate of iron to every three gallons. It should be applied hot from slacking.

The food for laying hens should be nutritious. During the cold weather a soft, warm feed of some kind should be fed in the morning. This feed should be mixed nearly dry. Boiled potatoes, mashed and thoroughly mixed with corn meal, while warm, are good, and greatly relished by fowls. Barley meal provender and wheat middlings are very good. In cold weather the fowls should be fed in the middle of the day, and this meal and the evening meal should be of whole grain, such as wheat, oats, buckwheat and corn. Some meat should also be fed in some shape. Broken oyster shells, powdered or burnt bones will furnish this.

Pulverized earth is the best dust bath.—[*Western Rural*.]

The Poultry House.

If a hundred or two hundred fowls are kept, not more than one-half of these should be housed under a single roof, especially in hot weather. And if hens are kept for laying purposes and for marketing, twenty to thirty in a flock is a much more profitable number to dwell together than a larger quantity.

For a single house, then, in which to quarter thirty to forty fowls the year round—if these can have a roomy yard outside to run in—the hen-house may be fifteen to thirty feet, divided in the centre, with runs and yards to correspond; said yards to be divided, also in the middle, by fencing. Or, a house twelve by fourteen feet will be ample. The shape must be made to conform to the space which the poultry man has to devote to the building conveniently, the ground floor occupying in round numbers 440 to 500 square feet.

Rough boarding—battened over the seams, a shingled, quarter-pitch roof, the wall ten feet high in front and six in rear, a portion of east and south sides glazed with sashes to let in light and sun-warmth in winter, and small openings near the eaves at both ends for ventilation will give you a good substantial house, in which fifty to sixty fowls may be kept (in two apartments) to advantage. And this building should cost not over \$60 to \$75, built upon a three by four inch joist framing.—[*Poultry World*.]

Table Refuse for Poultry.

A proper feeding pail is an absolute necessity to successfully prepare the refuse of the table and kitchen, to make it proper food for fowls. Get a hardwood pail, or ask your grocer for a hardwood butter firkin shaped like a pail. Cut a board to fit into the chine firmly on the whole bottom of the pail, and thick enough to project an inch or more beyond the ends of the staves. Chop fine all scraps and waste of every kind, cooked or raw vegetables, chicken bones, and everything except beef, pork or mutton bones; these save by themselves, and put into a stock soup kettle, with all pieces of raw meat, or cheap meat from the market, and cook for several days; then cut up the bones with the other waste, and it can be used as soon as they become soft.

PRIZE LIST OF THE FAIRS.

(Abridged.)

Industrial Exhibition, Toronto.

HORSES.

THOROUGHBRED HORSES.

Stallion 4 years old and upwards, 1 M Burgess, Woodstock; 2 Wm Hendrie, Hamilton. Stallion 3 years old, John White, Milton. Stallion 2 years old, R R Pringle, Cobourg; 2 John White, Toronto; 2 Andrew Smith, Toronto. Yearling colt, 1 John White, 2 Robert Wilson. Stallion of any age, M Burgess, diploma. Two-year-old filly, 1 John White, 2 James McFayden. Yearling filly, 1 John White. Brood mare with foal by her side, 1 John White, 2 John White.

ROADSTER HORSES, FOR DRIVING OR THE SADDLE, 15 1/2 HANDS AND UNDER.

Stallion 4 years old and upwards, Wm Meek, Langstaff; 2 Wm Hendrie, Hamilton. Stallion 3 years old, Michael Perdue, Campbell's Cross; 2 J J Davis, Davisville. Stallion 2 years old, 1 Richard Graham, Claremont; 2 John Palmer Richmond Hill. Yearling colt, 1 John McMurtry, Bowmanville; 2 Thos Hassard, Credit. Stallion of any age, Michael Perdue, diploma. Two-year-old filly, 1 Wm Cooney, Clarke; 2 John F Taylor, Tynonto. Brood mare with foal by her side, 1 Jas B Wilson, 2 John McMurtry. Pair matched horses (geldings or mares) in harness, 1 Ed H Irving, Newmarket; 2 James Scanlan, Tottenham. Single horse (gelding or mare) 1 John Palmer; 2 Harry Read, Port Hope.

CARRIAGE HORSES—3 YEARS OLD AND UPWARDS, TO BE OVER 15 1/2 HANDS.

Stallion 4 years old and upwards, 1 James Drinkwater, Allo; 2 Robt Cheyne, Toronto. Stallion 3 years old, 1 R S Lightart, Campbell's Cross; 2 R C Fairman, Cannifton. Stallion 2 years old, 1 S J McDougal, Smithville; 2 Robert Steele, Creemore. Yearling colt, 1 Thos Blanshard, Appleby; 2 D & A Macdonald, Vellora. Stallion of any age, 1 James Drinkwater, diploma. Pair of matched carriage horses (mares or geldings) not less than 16 hands, 1 Levi Skelton, London; 2 John Devanney, St Catharines. Pair of matched carriage horses (not less than 15 nor over 16 hands), 1 Martin Cassin, Jr, Aberfoyle; 2 John Mitchell, Toronto. Carriage Filly 3 years old, 1 Hon D Macpherson, Toronto; 2 R H Defries, Toronto. Filly two years old, 1 W C Brown, Meadowdale; 2 W Christie, Toronto. Yearling filly, 1 Daniel Campbell, 2 William Cooney. Brood mare with foal by her side, 1 Daniel Campbell, 2 Simon Shunk, Edgerley.

Single carriage horse (gelding or mare), in harness, B W Clarke, Downsview; 2 C W Armstrong, Derry West. Saddle horse (gelding or mare) not over 16 hands, Dr A Smith, Toronto; 1 and 2. Saddle horse or hunter (heavy weight) capable of carrying 15 stone, 1 John A Donaldson, Toronto; 2 Theodore King, Toronto. Saddle horse or hunter (light weight), up to 11 stone, 1 A B Harrison, Toronto; 2 Dr A Smith. Saddle horse best leaper, 1 Dr A Smith; 2 John A Donaldson.

HORSES FOR AGRICULTURAL PURPOSES.

Stallion, 4 years and upwards, 1 John J Treacy, Schomberg; 2 Israel Ely, Tavistock. Stallion three years old, 1 Jas Ketchen, Balsom; 2 David Rowntree, Davenport. Stallion two years old, 1 John M Bell, Atha; 2 Wm Cox, Thornhill. Yearling colt, 1 Robert Reid, Malcom; 2 George Middlebrook, Richview. Filly four years old, 1 H and R Blyth, Bowmanville; 2 Robert Thompson, Ellesmere. Filly, three years old, 1 Wm Green, Agincourt; 2 John Torrance, Thistleton. Filly two years old, 1 Dugald McLean, York Mills; 2 George Keith, Toronto. Yearling filly, 1 and 2 A Pilkey, Uxbridge. Brood mare, with foal by her side, 1 Charles E Porter; 2 Wm Crawford, Malvern. Matched farm team—gelding or mare—in harness, 1 Dugald McLean; 2 Joseph Brownridge, Hornby. Sweepstakes—Stallion for agricultural purposes of any age, diploma, John N Tracey.

HEAVY DRAUGHT HORSES.

Heavy draught stallion, 4 years old and upwards, 1 Thomas J Bell, Londesboro; 2 Richard Graham. Stallion three years old, 1 Charles Harrison, Dollar. Stallion two years old, 1 Thomas Blanchard. Yearling colt, 1 Joseph Thompson, Columbus; 2 Robert Cheyne. Heavy draught stallion any age, diploma, Thos J Bell. Filly three years old, 1 H and R Beith; 2 Filly two years old, J Davidson and Son. Filly yearling, Thos Lawrie. Brood mare with foal by her side, 1 Wm M Miller, Claremont; 2 Joseph Thompson. Mare with two of her progeny, all to be bona fide the property of the exhibitor, 1 James D Davidson and Son; 2 Joseph Thompson. Span of heavy draught horses—geldings or mares—1 James Lawrie.

Provincial Exhibition, Ottawa.

GOLD MEDALS.

HORSES.

Best stallion, any age, "Magyar," John Clark. Best pair matched horses, geldings or mares, to harness, Alex Franklin, Morrisburg.

CATTLE.

Best Durham Bull, of any age, 4th Duke of Clarence, C W F S Association. Best five females, Durham, any age, bred and owned by exhibitor, C W F Association. Best herd of Herefords, consisting of one bull and five females, of any age, F W Stone. Best herd of Devon cattle, consisting of one bull and five females, of any age, George Rudd. Best herd of Yorkshire cattle, consisting of one bull and five females, of any age, Jardine and Son. Best herd of Galloway cattle, consisting of one bull and five females, of any age, Thomas McCrae. Best herd of Jersey or Alderney cattle, consisting of one bull and five females, of any age, E M Jones. Best pair of fat cattle, of any age, not exhibited in other sections, H and J Groff. Best fat ox or steer, of any age, George Moore, Waterloo.

SILVER MEDALS.

HORSES.

Best female, any age, Canadian bred, W Henry. Best stallion, of any age, "Rysdick," J P Wisner. Best span heavy draught horses, geldings or mares, A McKellar, Naplean.

CATTLE.

Best Durham cow, "Butterfly Duchess," imported, C W F Association. Best milk cow, bred and owned by exhibitor, James Drummond, Hochelaga.

PRIZE LIST.

AYRSHIRES.

Best bull, 4 years old and upwards, "Mars 1st," Jardine and Son, Saltfleet; 2nd, "Carrie Lad," Jas Yuill, Ramsey; 3, "Barley Corn," G H Muir, St Laurent. Best bull, 3 years old, "Indian Chief," Thos Grey, Oshawa; 2, Jas Henderson, Hochelaga. Best bull, 2 years old, "King Jack," Andrew Scott, St Laurent; 2, "Prince Charlie," Thos Grey; 3, "Royal George," Thos Cowan, Plantagenet. Best bull, 1 year old, "Bonnie Dundee," Thos Irving, Montreal; 2, "Elgin Duke," Wm Rodden, Plantagenet; 3rd, Jardine and Son, Saltfleet. Best bull calf, under one year, Thos Grey; 2, "Vinedale Duke," Jardine and Son; 3, "Grand Duke," Wm Rodden. Best bull, of any age, "Billy Muir," Jardine and Son. Best cow, "Princess Louise," Jardine and Son; 2, "Gipsy Queen," Thos Irving; 3, R P Mitchell, Ottawa. Best cow, three years old, Jardine and Son; 2, "Beauty Bride," Jardine and Son; 3, "Hamilton Lass," Jardine and Son. Best heifer, 2 years old, "Bessie Mars," Jardine and Son; 2, "Model," Thos Grey; 3, "Alice Mars," Geo Thompson. Best heifer, 1 year old, "Duchess of Vinedale," Jardine and Son; 2, "Bonnie Jean," Thos Irving, Montreal; 3, "Rochester Maid," Jardine and Son. Best heifer calf, under 1 year, "Clara B Mars," Jardine and Son; 2, "Primrose Fourth," Thos Grey; 3, "Jessie," John Hay, Lachute. Best three milk cows, bred and owned by exhibitor, James Drummond, Hochelaga. Best herd of Ayrshire cattle, consisting of 1 bull and 5 females, of any age or ages, Jardine and Son. Herd Ayrshire cattle, Thos Grey, highly commended.

GALLOWAYS.

Best bull, 4 years old and upwards, "Lord Lochinvar," Wm McCrae, Guelph; 2, "Wellington," A H Devlin, Guelph. Best bull, 3 years old, "Lord Douglas," Wm McCrae. Best bull, 2 years old, "Blackwood," Wm McCrae. Best Bull, 1 year old, "Laird o' Bowleugh," Wm McCrae; 2, "Young Solway," Thos McCrae, Guelph. Best bull calf (under one year), Thos McCrae; 2, "Robin Hood," Thos McCrae. Best bull, of any age, "Lord Lochinvar," Wm McCrae. Best cow, "Annie Laurie," Thos McCrae; 2, "Aggie," H Devine, Guelph. Best cow, 3 years old, "Borden Lass," Wm McCrae; 2, "Bonnie Bessie," Wm McCrae. Best heifer, 2 years old, "Black Swan," Jos Hickson; 2, "Minnie," Thos McCrae. Best heifer, one-year-old, "Holly," Wm McCrae; 2, Jos Hickson. Best heifer calf (under 1 year), "Bonnie Lassie," Wm McCrae; 2, "Borden Lassie," Wm McCrae. Best female, of any age, "Annie Laurie," Thos McCrae. Best herd of Galloway cattle, consisting of one bull and five females, of any age or ages, Thos McCrae.

JERSEY OR ALDERNEY CATTLE.

Best bull, three years old and upward, "Prince Edward," Wm E M Jones, Brockville; 2, "Middelfield Boy," E B Bradshaw, Whitevale. Best bull, 2 years old, "The Czar," Joseph Hickson. Best yearling bull, Joseph Hickson; 2, Joseph Hickson. Best bull, of any age, Joseph Hickson. Best cow, three years old and upwards, Romeo H Stevens; 2, "Milbury 2nd," E M Jones; 3, "Province," E M Jones. Best heifer, 2 years old, "Christmas Box," E M Jones; 2, E A Bradshaw, Whitevale. Best Yearling heifer, E A Bradshaw, Whitevale. Montreal. Best female, of any age, R H Stevens, Montreal. Best herd of Jersey or Alderney cattle, consisting of one bull and five females, of any age or ages, E M Jones, Brockville.

Central Fair, Hamilton.

FRUIT.

Apples—Twenty varieties, correctly named, three of each, 1, R M Griffith, Grimbsy; 2, Wm Emory, East Flamboro'. Ten varieties, ten of each, correctly named—two fall dessert, two fall cooking, three winter dessert and three cooking—1, D H Hill; 2, J Shaw, Hamilton. Eight varieties, correctly named, twelve of each, four dessert and four cooking, 1, J Shaw. Fall dessert, four varieties, six of each, correctly named, 1, D Lamont; 2, R M Griffith. Winter dessert, six varieties, six of each, correctly named, 1, J Shaw; 2, W H Brooking. Fall cooking, four varieties, six of each, correctly named, 1, W H Brooking; 2, J Shaw. Winter cooking, six varieties, six of each, correctly named, 1, W H Shaw, Hamilton; 2, E Lloyd, Barton. Ten snow, 1, P Gage; 2, D Hill. Ten Gravenstein, 1, D Lamont; 2, S Gage, Hamilton. Ten St. Lawrence, 1, A D Lee, Stoney Creek; 2, J Cline, Ancaster. Ten Porter, 1, A W Taylor; 2, James Shaw. Ten fall pippin, 1, F Morrison, Hamilton; 2, B Crickman, East Flamboro'. Ten twenty-ounce Cayuga red streak, 1, David Hill; 2, Ira Rymal. Ten Alexander, 1, Lewis Mills, West Flamboro'. Ten any other variety, correctly named, 1, A W Taylor; 2, E Lloyd, Barton. Ten Brit stone pippin, 1, J Cline, Ancaster; 2, P Stripe. Ten Cranberry pippin, 1, J Cline, Ancaster; 2, J Bell. Ten Aspopus Spitzenburg, 1, W A Crosshwaite, Hamilton; 2, W H Drew. Ten Baldwin, 1, J J Bowncan; 2, J G Teneyck. Ten Northern Spy, 1, J Dymont; 2, J Cline. Ten King of Tomkins County, 1, Geo E Horning, East Flamboro'; 2, J Cline. Ten Rhode Island greening, 1, W A Emory; 2, F Morrison. Ten Swaar, 1, W R Emory; 2, James Shaw. Ten Bourassa, 1, T Harper, Barton; 2, J Wild. Ten American golden russett, 1, Geo E Horning; 2, W H Drew. Ten Roxbury russett, 1, R M Griffith; 2, Jas Shaw. Ten Pomme Grise, 1, F Morrison; 2, David Hill. Ten Swazie Pomme Grise, 1, S Lee; 2, David Hill. Ten Wazener, 1, Jas Shaw; 2, David Hill. Ten Newton Spitzenburg, 1, Jas Paisley, Ancaster; 2, T Harper. Ten any other variety of winter, not specified, 1, David Hill; 2, W H Brooking. Six Ohio Nonpareil, 1, John Peddie. Six Grimes golden pippin, 1, S Lee; 2, J Cline. Six Hub bartston Nonsuch, 1, W H Drew; 2, Gilbert McCulloch, Ancaster.

Crabs—Six varieties, twelve of each, correctly named, 1, James Gordon; 2, D Ewing. Twelve Transcendent, 1, D Roddason, Barton; 2, Jos Gordon. Twelve any other variety, 1, Thos Kerr; 2, Jos Gordon.

Pears—Ten varieties, four of each, correctly named, 1, Jos Gordon; 2, Chas Mason. Ten varieties, R M Wanzer. Six varieties, three of each, four fall and two winter, correctly named, 1, Jos Gordon; 2, F B Lewis. Six Bartlets, 1, W A Crosshwaite; 2, F B Lewis. Six white Doyenne, 1, F Gabel, Ancaster; 2, R Montgomery, Hamilton. Six grey Doyenne, 1, R Montgomery; 2, D Ewing. Six Flemish beauty, 1, S Gage; 2, Alex Riach. Six Louis Bonne de Jersey, 1, Alex Riach; 2, W P Strickland, Hamilton. Six Duchess de Angouleme, 1, George Roach; 2, T Stephens, Hamilton. Six Beurre Bose, 1, John Mellon, Hamilton; 2, F B Lewis. Six Beurre d'Anjou, 1, F B Lewis; 2, W T Taylor. Six Shelton, Roach; 2, D Pawson. Six Beurre d'Al, 1, Geo Gordon; 2, D Pawson. Six Beurre Clairgeat, 1, W H Brooking; 2, A D Lee, Stoney Creek. Six Seckle, 1, F B Lewis; 2, Alex Riach. Six Lawrence, 1, Geo Roach; 2, F B Lewis. Four varieties, fall, 1, A Riach; 2, C Mason. Six any other variety, fall, not specified, 1, O Smith; 2, F B Lewis. Winter Nellis, 1, D Pawson; 2 Mrs Matthew Bell, Hamilton. Glout Morceau, Mr Stevenson; 2, T Harper. Six Vicar of Wakefield, 1, J M Eastwood; 2, James G Davis, Hamilton. Six Beurre, 1, F W Pearman, Hamilton; 2, Mrs Matthew Bell. Six any other variety, not specified, 1, T Harper; 2, F W Pearman. Eight varieties, four of each, 1, Jos Gibson; 2, C Mason.

Plums—Six varieties, twelve of each, 1, R J Howes; 2, Jos Gordon. Twelve dessert, one variety; 1, R J Howes; 2, Jos Gordon. Twelve cooking, one variety, 1, R M Wanzer; 2, R J Howes. Damsons, one quart, 1, Geo E Horning; 2, S P Stripe.

Peaches—Six varieties, six of each, correctly named, 1, J C Teneyck; 2, R M Griffith. Twelve white flesh, one variety, correctly named, 1, Joseph Tweedie; 2, D Pawson. Twelve yellow flesh, one variety, correctly named, 1, P Gage; 2, D Lamont. Twelve seedling, 1, John Dreas, Clifton; 2, Wm Syers, Barton. Collection, not less than six varieties, six of each, 1, J C Teneyck; 2, R M Griffith.

Quinces—Ten, 1, Charles Mason; 2, J B Lewis.

Grapes, under glass, six varieties, one bunch each, correctly named, 1, D Pawson; 2, Wm Cook, Brantford; 3, H and J Groff, Hamilton. Any other variety, black, 1, Wm Cook; 2, D Pawson. Open air, ten varieties, two bunches of each, 1, S Woodley, Hamilton; 2, Robert Young. Open air, six varieties, two bunches each, two black, two white and two other colors, 1, Wm Young; 2, F B Lewis.

Black, open air—Rogers' No 43 (Barry), three bunches, 1, Wm Anderson, Hamilton; 2, Robert Young. Rogers' No 44 (Herbert), four bunches, 1, Wm Anderson; 2, S Woodley. Concord, three bunches, 1, L L Stewart, Saltfleet; 2, Ira Rymal. Rogers' No 4 (Wilder), three bunches, 1, Wm Anderson; 2, Wm Young. Eumelan, three bunches, 1, Charles Mason; 2, S Woodley. Senasqua, three bunches, 1, R Young; 2, S Woodley. Cleveland, three bunches, 1, S Woodley; 2, R Young. Any other variety, not specified, black, three bunches, 1, Thos Healey, Hamilton; 2, R M Wanzer.

White, open air—Rebecca, three bunches, 1, R Young; 2, W P Strickland. Allan's Hybrid, three bunches, 1, Wm Anderson; 2, W H Brooking. Any other variety, white, not specified, three bunches, 1, F B Lewis; 2, W P Strickland.

Red, or other color—Delaware, three bunches, 1, Thomas Hedley; 2, H H Hurd, Hamilton. Salem, three bunches, 1, Wm Young; 2, Thos Hedley. Rogers' No 15 (Agawam), 1, H H Hurd; 2, Wm Young. Catawba, three bunches, 1, R Young; 2, Wm Young. Rogers' No 3, three bunches, 1, R M Wanzer; 2, H Rogers' No 9 (Lindley), three bunches, 1, Wm Anderson; 2, F S Wanzer. Any other variety, not specified in the six previous sections, 1, R Young; 2, S Woodley. Open air, twenty-four varieties, two bunches of each, 1, Mrs M Bell; 2, W H Brooking.

Melons—Two green flesh, 1, D Burnett; 2, R Pollock, Hamilton. Two scarlet flesh, 1, John Lewis, Hamilton; 2, D Burnett. Two water, 1, John Dreas; 2, J C Teneyck. Two citron, 1, John Patterson, Hamilton; 2, R Pollock.

Western Fair, London.

CATTLE.

DURIAMS.

Bull, three years and upwards, 1, Canada West Association, Brantford; 2, H Snell and Sons, Brantford; 3, H and J Groff, Elmira. Bull, two years old, 1, R Howley, Goderich; 2, C W A; 3, James F Davis, Glanworth. Bull, 1 year old, 1, H E Routledge, Hyde Park; 2, H and J Groff; 3, C W A. Bull calf, under one year, 1, James Eke, Alvington; 2, R Whetter, London; 3, J Briggs, Arva. Bull of any age, dip, C W A. Cow, 1, C W Farm, Brantford; 2, H and J Groff; 3, H Snell and Sons. Three-year-old Cow, 1, H and J Groff; 2, W J Biggins, Clinton; 3, F Murdock, Ponsonby. Two-year-old heifer, 1, H Snell and Sons; 2, C W F; 3, H and J Groff. One-year-old heifer, 1, C W A; 2, H Snell and Sons; 3, H and J Groff. Heifer calf, under one year, 1, C W A; 2, R Gibson, Iderton; 3, W J Biggins. Best herd, consisting of a bull and 5 females, owned by exhibitor, diploma, C W F A.

FAT AND WORKING CATTLE, ANY BREED.

Fat Ox, four years and over, 1 and 2, G Moore, Waterloo. Fat Ox, under four years, 1 and 2, G Moore; 3, F Murdock, Ponsonby. Fat Cow, four years and over, 1, H and G Groff, Elmira; 2, R Whetter, London; 3, T Whetter, London. East, Fat Cow or Heifer, under four years, 1 and 2, H and J Groff; 3, R Whetter. Yoke of Working Oxen, 1 and 2, John Nixon, London.

SHEEP—LONG WOOLLED.

COTSWOLDS.

Ram, two shears and over, 1, P McLevie, Jarvis; 2, J C Ross, Jarvis; 3, J Cumming, Londesboro'. Shearing ram, 1, John C Ross; 2, Ed Charlton, Duncrief; 3, H Snell and Sons, Clinton. Ram lamb, 1, P McLevie; 2, J C Ross; 3, H Snell and Sons. Two ewes, two shears and over, 1, H Snell and Sons; 2 and 3, J C Ross. Two shearing ewes, 1, John C Ross; 2, H Snell and Sons; 3, F and H Shore, White Oak. Two ewe lambs, 1, P McLevie; 2, H Snell and Sons; 3, J C Ross. Best flock, consisting of ram and 6 ewes, diploma, John C Ross.

LEICESTERS.

Ram, two shears and over, 1, H Snell and Sons, Clinton; 2, J Kelly, jun, Shakespeare; 3, J McPherson, Amiens Shearling ram, 1, J Kelly, jun; 2, John Scott, Iven. Ram lamb, 1, W. Patterson, Shakespeare; 2, John Scott; 3, W Whitelaw, Guelph. Two ewes, two shears and over, 1, J Kelly, jun; 2, J Wiley, Adelaide; 3, J Oke, Aivinton. Two shearing ewes, 1, J Kelly, jun; 2, J Scott; 3, E Charlton, Duncrief. Two ewe lambs, 1, W Whitelaw; 2, W. Walker, Hlerton; 3, J S-ott. Best flock, consisting of ram and 6 ewes, diploma, J Kelly, jun.

LINCOLNS.

Ram, two years old and over, 1, C S Smith, Acton; 2, W Wadhams, St Thomas; 3, J Geary, London. Shearling ram, 1, C S Smith; 2, W Wadhams; 3, J Rowell, Berr. Two ewes, two shears and over, 1 and 2, W Wadhams; 3, J Geary, London. Two shearing ewes, 1, W Wadhams; 2, E Charlton, Duncrief; 3, W Jackson, London. Two ewe lambs, 1, E Charlton; 2, C S Smith; 3, W Walker, Hlerton. Best flock, consisting of ram and six ewes, diploma, W Wadhams.

SHEEP—MEDIUM WOOLLED.

SOUTH-DOWNS, SHROPSHIRE, HAMPSHIRE AND OXFORDSHIRE DOWNS.

Ram, two shears and over, 1, J C Douglas, Galt; 2, D Perley, Paris; 3, J R Hood, Guelph. Shearling ram, 1, J H Hodgins, London; 2, J C Douglas; 3, J T Smith, Mt Vernon. Ram lamb, 1, J T Smith; 2 and 3, E J York, Wardsville. Two ewes, two shears and over, 1, J C Douglas; 2, D Perley; 3, T D Hodgins. Two ewe lambs, 1, J C Douglas; 2, J C Douglas; 3, D Perley. Best flock, consisting of ram and six ewes, diploma, J C Douglas.

FAT SHEEP.

Two fat wethers, 1 and 2, J R Hood, Guelph; 3, W Whitelaw, Guelph. Two fat ewes, 1 and 3, J R Hood; 2, J Kelly, Shakespeare.

PIGS—LARGE BREEDS.

YORKSHIRE CHESTER WHITE AND OTHER LARGE BREEDS.

Boar, one year and over, 1, J and R Leslie, Hornby; 2, J Featherston, Credit; 3, E Smith, London. Boar, under one year, 1, J and R Leslie; 2, G A Lawton, Sparty; 3, J Hewer, Guelph. Breeding sow, one year and over, 1, J and R Leslie; 2, J Featherston; 3, J Hewer. Sow, under one year, 1, G A Lawton; 2, J Featherston; 3, J Hewer. Sow of any breed, with litter by side, not otherwise entered, 1, J Featherston; 2, W Nixon, London; 3, H L Smith, London.

PIGS—SMALL BREEDS.

SUFFOLKS.

Boar, one year and over, 1, J C Featherston, Credit; 2, M Ashman, London; 3, J C Douglas, Galt. Boar, under one year, 1 and 2, M Ashman; 3, J Featherston. Breeding sow, one year and over, 1, J Featherston; 2, J Ballantine, Lambeth; 3, M Ashman. Sow, under one year, 1, J and R Leslie; 2, J Featherston; 3, J Ballantine.

IMPROVED BERKSHIRES.

Boar, one year and over, 1, Harrison and Dunlop, Thorncliffe; 2, F Booth, Thorcliffe; 3, Carl R Bizard, Baldonate. Boar, under one year, 1, F Lewis Baldonate; 2, H Snell and Sons, Clinton; 3, J A Gustin, Lobo. Breeding sow, one year and over, 1 and 2, Canada West Farm Association, Brantford; 3, H Snell and Sons. Sow, under one year, 1 and 2, C W A; 3, F Lewis.

ESSEX.

Boar, one year and over, 1 and 2, J Featherston, Credit. Boar, under one year, 1, J Featherston. Breeding sow, one year and over, 1 and 2, J Featherston. Sow, under one year, 1 and 2, do.

DEVONS.

Bulls, three years old and upwards, 1, W and J Peters, London. Two year old bull, 1, R Whetter, London. One year old bull, 1, J Pincombe, London. Bull calf, under one year, 1, Henry Harris, Nibleton; 2, W and J Peters. Bull of any age, diploma, W and J Peters. Cow, 1, J Pincombe; 2, W and J Peters. Three year old cow, 1, J Pincombe; 2, W and J Peters. Two year old heifer, 1, J Pincombe; 2, W and J Peters. Three year old heifer, 1, W and J Peters; 2, R Whetter. One year old heifer, 1, J Pincombe; 2, W and J Peters. Best herd, consisting of a bull and five females, owned by exhibitor, diploma, J Pincombe.

HERDFORDS.

Herd, consisting of bull and five females, owned by exhibitor, 1, F W Stone, Guelph.

GRADE CATTLE.

Grade cow, 1 and 3, F Muddock, Ponsonby; 2, F and H Shore, White Oak. Three year old cow, 1 and 2, H and J Groff, Elmira; 3, J Hooper, Metropolitan. Two year old heifer, 1 and 3, H and J Groff; 2, F Muddock. One year old heifer, 1, H and J Groff; 2, F Muddock; 3, J Hooper. Heifer calf, under one year, 1, H and J Groff; 2, F Muddock; 3, F and H Shore. Pair three year old steers, 1, H and J Groff; 2 and 3, J Nixon, London. Pair two year old steers, 1, F Muddock; 2, J Nixon; 3, R Whetter, London. Pair yearling steers, 1, A Bryant, London; 2 and 3, do.

IMPLEMENTS.

AGRICULTURAL IMPLEMENTS, VALUED BY HORSE, STEAM, OR WATER POWER.

Iron Plough, 1, George J. L. S., London; 2, T Yeandell, Stratford; 3, Thomas Doherty, Watford. Iron beam plough, wooden handles, 1, McClary Manufacturing Co, London; 2, T Doherty; 3, D W Vary, Stratford. Wooden Plough, 1, G Jackson; 2, D W Vary. Salsol plough, 1, T Brown and Co, Ingersoll. Double-share trench plough, 1, Jas Walker, London; 2, B Bell and Son, St George; 3, J G Cocksbutt, Brantford. Gang plough, 1, D Duffell, London; 2, DAV Vary; 3, George Jackson. Field or two-horse cultivator, iron, 1, Masson Manufacturing Company, Oakville; 2, J G Cocksbutt; 3, Stewart and Co, London. For wood, 1, Stewart and Co; 2, R Bell and Son; 3, Stewart and Co. Horse-doe or si-gle-horse cultivator, iron, 1, G Jackson, Brantford; 2, Masson Manufacturing Company; 3, J Wadton. For wood, 1, R Bell and Son; 2, Crawford and Co, London; 3, H Grant and Cochran, St Thomas. Pair of iron harrows, 1, T Doherty, Stratford; 2, T Tidman,

Clinton; 3, J H Small, Tempo. Pair of wood harrows, 1, A McPherson, Ghanworth; 2, J O Wilson and Son, Brantford. Wooden roller, 1, T Doherty; 2, B Bell and Son; 3, D Maxwell, Paris. Horse-rake, 1, Massie Manufacturing Company, Newcastle; 2, Haggart and Corhrane; 3, J O Wiener. Seed drill or barrow for turnips, etc, two rows, 1, W Walker, London; 2, J Walker. Horse-pitchfork and tackle, 1, Wortman and Marrow, London; 2, M T Buchanan, Dorchester. Straw-cutter, 1 and 2, D Maxwell. Grain-cracker, 1, D Maxwell; 2, Thompson and Williams, Stratford. Machine for cutting roots for stock, 1, D Maxwell. Cider mill and press, 1, Doomer and Boschart Co, Syracuse, N.Y.; 2 and 3, H Sell, Vienna. Machine for making drain tiles, 1, G S Tiffany, London; 2, D Darvill, London. Machine for making bricks, 1, G S Tiffany; 2, D Darvill. Extras, highly commended—Gleaner and binder, and collection of implements, John Watson, Ayr; No 9, self-binder, A Harris, Son and Co, Brantford; jointer plough, cast, and one clipper plough, James G Cocksbutt, Brantford; sulky plough, R C Reid and Co, Chatham; root puller, D Maxwell, Paris; hay-loader, T Brown and Co, Ingersoll.

AGRICULTURAL TOOLS AND IMPLEMENTS FOR HAND USE.

Set draining tools, 1, James Wright, London. Half-dozen steel hoes, 1, A S Whitney Mfg Co, Oshawa; half-dozen manure forks, 1, A S Whitney Mfg Co; half-dozen spading forks, 1, A S Whitney Mfg Co; seed drill or barrow, 1, Jas Walker, London; 2, S and L Allen, Philadelphia, Pa; half-dozen scythe snaiths, 1, Dexter and Whitman Mfg Co, St Thomas; grain cradle, Dexter and Whitman Mfg Co, 2, A S Whitney Mfg Co; half-dozen cradle scythes, 1, do; lawn mowing machine, 1, W Wilkie, Guelph; half-dozen hay rakes, 1, Dexter and Whitman Mfg Co; 2, D Oatman and Sons.

Guelph Central Fair.

CATTLE—HEREFORDS.

Bull, 3 years old and upwards, 1st, F W Stone; bull, under two years, 1, F W Stone; 2, Beattie and Dyson. Calf, under one year, 1 and 2, F W Stone; cow, 4 years and upwards, 1, F W Stone; 2, Alf Stone; Cow, under four years old, 1, F W Stone; heifer, under three years old, 1, F W Stone; 2, J R Hood; heifer, under two years old, 1, J R Hood; 2, F W Stone; heifer calf, under one year old, 1, F W Stone; 2, Alf Stone; herd of Herefords, consisting of one bull and 5 females (of any age), owned by exhibitor, diploma, F W Stone.

ROOTS.

Potatoes—Snow flake, one bushel, 1 Isaac Anderson, Eramosa; 2 C Bierman. Garnet chilis, one bushel, 1 E Erb; 2 L Koehler; early rose, 1 C Bierman, 2 Wm Mitchell; late rose, 1 E Erb, 2 P S Martin, Garfraxa; Brownell's beauty, 1 L Koehler, 2 C Bierman; any other sort, 1 P S Martin; 2 L Koehler; collection not less than six varieties, 1 James Black, Puslinch, 2 L Koehler.

Turnips, Marshall's swede, 1 John S Armstrong, 2 T Talbot, Erin; Skurving's swede, 1 Thos Talbot, 2 J S Armstrong; East Lothian, 1 Thos Talbot, 2 Chas Head; Sutton's champion, 1 Chas Head, 2 T Talbot; sharp's improved purple-top swede, 1 J S Armstrong; 2 Jesse Anderson; Carter's imperial purple, 1 Thos Talbot, 2 J Anderson; Hall's Westbury, purple, 1 Jesse Anderson, 2 C Head; yellow-fleshed, other than swede, 1 Isaac Anderson, 2 Jesse Anderson; grey-stone, other than swede, 1 Isaac Anderson, Eramosa, 2 Jas Black. Carrots, long Orange, 1 Isaac Anderson; 2 L Koehler; alt-ringham, 1 T Sherwood, Nichol; 2 Enoch Erb; white Belgian, 1 T Sherwood; 2 Isaac Anderson. Mangold Wurtzel (cong), 1 H Sorby; 2 Oswald Sorby; Globe 1 O Sorby; 2 H Sorby; White sugar beets, 1 H Sorby; 2 O Sorby.

St. John County, N. B. Fair.

SHORTHORNS.

Best bull, any age, 1 Jer Donovan; best bull one year old, Frank Green; Dairy cow, 1 L Donovan; heifer one year old, 1 L Donovan.

AVRSHIRES.

Best bull any age, 1 L Donovan, 2 John Callaghan; best bull two years old, 1 L Donovan, 2 Thos Davidson; best bull one year old, 1 L Donovan, 2 J Donovan; Dairy cow, 1 S Creghton; 2 S Creghton; heifer two years old, 1 L Donovan, 2 L Donovan; heifer one year old, 1 L Donovan, 2 L Donovan; calf of 1879, 1 L Donovan, 2 L Donovan.

PERSEYS.

Best bull any age, 1 S S Hall, 2 F W Hatheway; best bull two years old, 1 Joseph Prichard jr; best bull one year old, 1 Geo E King, 2 Joseph Prichard jr; Dairy Cow, 1 Henry Vaughan; heifer two years old, 1 F W Hatheway; Heifer one year, 1 A T Dunn, 2 Magee Bros; calf of 1879, 1 L J Almon, 2 J J Fellows.

HORSES.

Farm and draft stallion, 1 Thos McFarlane, 2 W E Perley; farm and draft mare, 1 Jer Donovan, 2 Wm Shaw; brood mare, 1 Jos Graham, 2 S P Osgood; colt three years old, John Callahan; Colt two years old, 1 W Arthur, 2 L Donovan; farm and draft colt one year old, 1 Mrs R Jardine, 2 Jer Donovan; carriage and saddle stallion, 2 S Fitzpatrick, 2 J Fitzpatrick; carriage mare, 1 B Hevenor, 2 W Shaw.

SHEEP.

Leicester ram, 1 L Donovan, 2 D McBrien; Leicester ewe, 1 L Donovan, 2 L Donovan.

PRODUCE.

Wheat, 1 Thos Davidson, 2 D McBrien; white oats, 1 D McBrien, 2 D McBrien; black oats, 1 Thos Davidson, 2 F W Hatheway; barley, James Manchester. Mangold Wurtzels, 1 Allan McLean, 2 W Cunningham; Beets, 1 Thos Clark, 2 Richard Thompson; sugar beets, 1 W Cunningham, 2 F W Hatheway; parsnips, 1 W Cunningham, 2 Richard Thompson; kidney potatoes, 1 R McLean; carter potatoes, Robert Stewart; early rose potatoes, 1 John Doolin, 2 D McBrien; other potatoes, 1 R Thompson, 2 F W Hatheway; Swedish turnips, 1 Allan McLean, 2 W Cunningham; firkin of butter not less than 30 lbs, D McBrien; sample roll of butter, 5 lbs, 1 Allan McLean, 2 D McBrien.

Prince County Exhibition, P. E. I.

CATTLE.

Best bull any age, 1 George Compton, 2 Caleb Schurman; best shorthorn bull under three years, 1 George Compton, 2 John Richards; best Ayrshire Bull under three years, R Glen; best milch cow under three years, 1 Arch Wright, 2

R Glover; best heifer under three years, 1 Alex Laird, 2 Alex Lefurgy; best heifer under two years, 1 Alex Laird, 2 Alex Laird; best shorthorn bull calf, Thomas Fitzsimmons; best Ayrshire bull calf, Thomas Fitzsimmons; best shorthorn heifer calf, A Wright.

GRAIN.

Wheat, Robert P Hooper, Bedeque, 2 Hon James Yeo, Port Hill; two-rowed barley, 1 Wm S Rayner; 2 Geo M Price, Summerside.

ROOTS.

Swede turnips, Edwin Darby, Esq, Egmont Bay; table carrots, Salmon Vessey, Summerside; sugar beets, weight, Jos Ives, Esq; 2 Finlay McNeill, Esq, Summerside.

Subjects for Thought.

CIVIL AND MILITARY SQUABBLE.—At the presentation to the Marquis and Princess in this city a soldier was stationed at the entrance with fixed bayonet, having instructions from the commanding officer to let no one pass. The Chief of Police attempted to pass, but was repulsed by the soldier. The Chief then summoned the soldier, who was fined one dollar and costs by the Police Magistrate. The soldier appeals. The Queen must defend him in the discharge of his duty.

Our American neighbors boast of their freedom, of their churches, of their great speakers, and their humane and religious societies. Yet, despite of all, the poor Indians are shot down in cold blood for the great sin of attempting to protect themselves from the vilest depredations continually committed on them by the most lawless and unprincipled inhabitants of their country. Where is justice? Where is their vaunted freedom? Every report admits that the white men are the aggressors.

Bank directors have been arrested and incarcerated in prison in England and in Montreal for passing false accounts to the public. Too much leniency has been shown to rascals who obtain money under false representations; there are too many influential persons who favor leniency to such. All our moneyed or trust institutions should be closely watched. There are many in Canada that are living on other people's money; they make a great show, live in style, and give largely of money not their own. Some should be in jail instead of in their carriages. Closer investigation is required. Some Government officials ought to be in irons; some receive money and give no value in return for it.

The prospects are that beef and mutton will be much higher in England after Christmas, as the hay, turnip and grain crops are deficient there. This year they have not the feed to fatten their usual quantity. Keep all the stock you can keep well.

Mr. Hugh Love, one of our advertisers of Leicester stock, has made much better sales this fall than for many years past; in fact, it is difficult for him to retain sufficient for his breeding stock, the buyers tempt him with such prices.

Mr. T. W. Glen, of the Oshawa Manufacturing Works, informs us that he sold over \$5,000 worth of agricultural implements at the Western Fair in London. He erected the best show stand on the ground. He also informs us that he would expend \$600 or \$700 in erecting a permanent building on the Exhibition Ground, if the institution was permanently fixed. This, no doubt, would be largely supplemented by other manufacturers. The Directors should exert themselves to obtain such necessary permanent buildings as are now required.

RAVAGES OF PLEURO-PNEUMONIA.—Putnam Co., New York, is excited over the ravages of the contagious Pleuro-pneumonia. At a meeting of the citizens in the county, Oct. 8, John G. Borden offered to advance \$10,000 towards crushing out the disease. It is supposed the disease was communicated by a drove of cattle coming from Buffalo via Albany. It is proposed to quarantine the whole county.

A Good Prospect for Farmers.

The farmers should never be despondent. One favorable season may remove the incubus of debt that paralyzes their energies. This has been the case with not a few this year. The following extract from an American paper is as applicable to our own fair Dominion as to farmers south of the line. A Canadian farm is, after all, not the worst paying or least secure bank to invest money in.

ADVANCE ON FARM LANDS.—The wheat crop just harvested has saved many a farmer from bankruptcy. A story is going the rounds of the yards of a man who thought he owned 640 acres of good land, but the same was covered a foot thick with mortgages, and last winter the owner made up his mind to put in about six hundred acres of spring wheat, which could be harvested and marketed before the mortgage would close him out; he followed out his plan, and when he came to thresh he found he could not only pay all his debts but have several thousand dollars left, which made him a rich and an honest man all at one time. Numerous other instances are related of farmers that for the first time in many years put in 40 to 60 acres of wheat, the yield of which has paid off their long accumulated debts and placed them in a prosperous condition. Many a farmer who in the spring looked with gloomy forebodings on the future now thinks this a pretty good world, after all said and done, and this happy frame of mind is due to the good crops of wheat and other crops.

Emigrants from England.

The ensuing season gives promise to be one of the most important in emigration that Canada has witnessed. Agricultural Commissioners are examining the capabilities of the country, the modes of our farming, and the prospects of the agricultural produce. There are also in the country delegates from the tenant farmers of England to inquire and report what would be the prospects for emigrants of that class in Canada—men who are practical agriculturists, thoroughly conversant with farming, and having means to carry it on as it should be done. It may be that English farmers will become occupants of farms in Ontario which those seeking new homes in the northwest have occupied.

A Peasant Proprietorship.

The striking contrast between the agriculture of a country farmed by the yeomanry and a country under a peasant proprietorship was thus portrayed by Lord Beaconsfield in a speech at Aylesbury:

The question of peasant proprietorship has been tried upon the greatest scale. There are in France 5,000,000 of peasant proprietors who do not hold each more than six acres of land—that is 30,000,000 acres. What is the result of the experiment of these 5,000,000 of proprietors occupying a superficies of 30,000,000 acres compared with what our 500,000 farmers have done. France has a most fertile soil, while that of England is ungrateful; and that fertile soil is managed by the most ingenious and thrifty nation in the world—a nation that can make something out of nothing; that displays in its management the greatest ability. But what is the result? It is that the production of England per acre is double that of France. The average of England is 28 bushels; of France it is 14 bushels.

The Germantown Telegraph (October) says: "Those who wish to cultivate smilax next winter should start it now. Separate the bulbs, allowing but two or three to a four-inch pot. Use loam, leaf mould and sand in equal quantities for potting, with a little cow manure mixed thoroughly among it. Place the pots where they may have a fair heat, and not much sun, and keep the soil just moist. When the plants appear above ground remove to a window where they may get the morning and evening sun, and keep the pots moist, but not drenched with water. Smilax likes plenty of heat, but not a hot sun. Many persons make a mistake in attempting to train the vines on trellises. They should simply be given a small twine to cling to. Thus they will make a nice growth, and besides being very pretty will furnish an abundance for cutting during the winter."

British Columbia.

SIR,—Your readers would, I have no doubt, like to hear something from this, the most distant part of the Dominion. Though rains have caused some damage, the crop yield is very good—fully as large as in former years. As a rule, spring wheat proved superior to the fall wheat, as last winter was unusually wet. Root crops are very heavy. Many portions of the country are admirably adapted for the cultivation of fruits and cereals, and horses winter out from the 49th parallel to Fort Frazer, a stretch of 450 miles. The climate is favorable, healthful and delightful. All kinds of breeds of cattle brought here thrive, without risk of loss by being acclimated. Cattle have been raised here in British Columbia, driven 2,400 miles to Wyoming Territory, U.S., then brought from there to Chicago, and sold at a profit. When the C. P. Railway is completed this will be a magnificent country.

VICTORIAN, Yale, B. C.

THE CANADIAN HORSE.—Mr. Herbert, a very reliable writer, who has taken great pains to arrive at the truth, says: "With the one solitary exception of the Norman horse in Canada, no special breeds have taken root as such, or been bred, or attempted to be bred, in their purity, in any part of America. In Canada East the Norman horse, imported by early settlers, was bred for many generations entirely unmixed and as a general agricultural horse of the province exists yet, stunted in size by the cold climate and rough usage to which he has been subjected for centuries, but in no wise degenerated, for he possesses all the honesty, courage, endurance, hardihood, soundness of constitution, and characteristic excellence of feet and legs, of his progenitors."

CORN IN HORSES' FEET.—Corns are the result of a bruise of the sensitive parts of the sole of the horse's foot, and generally occur at the inside heel. They are caused by the shoe. Among the symptoms are redness or discoloration of the horn at the inner angle of the heel, more or less increased local heat, tenderness, and consequent lameness. When standing, the horse is inclined to favor the foot, by slightly raising the heel from the ground. In some cases active inflammation and suppuration may ensue, evidenced by the escape of matter above the hoof, where the hairs join the same. In ordinary cases relief may be obtained by proper attention to the shoeing. Such a horse should be shod regularly every three or four weeks, the diseased parts carefully pared down, but without starting the blood; and the shoe should be affixed so as not to bear on the inside heel.—Ex.

THE FUTURE OF WHEAT CULTIVATION.—The operations this year will tend to greatly stimulate the cultivation of wheat lands, and there is an unsettled district in northern Texas, which, it is believed, could supply as much as Europe needs this year. In this year's experiences will be seen one of the great results of the rapid commercial communication that rules the world. All the west of Europe would be afflicted with famine this winter if this were not an age of telegraphs and steamships and the systematic interchange of information.

CATTLE DISEASE.—The New York *Express* says: There is a far from agreeable prevalence of pleuro-pneumonia among cattle in this city at present. Pleuro-pneumonia, it is claimed, is very contagious, and physicians say that milk from cows affected is unwholesome and sometimes even poisonous. It is a curious fact that there is, at the present time, more pleuro-pneumonia in this city than in all other parts of the country put together.

Good times have now fairly set in again. Good crops, good prices; confidence again restored; merchants and manufacturers hopeful; and frequently the railroads and steamships are blocked with freight. Freight and goods have advanced with a greater bound than ever known before; every car in requisition. Peace and plenty reigns.

At the International Fair to be held in New York the second and third weeks in December, Canadians are invited to compete for two prizes for creamery butter, two for dairy butter, and one of one hundred dollars for cheese.

On Reading.

[The following passage is from an address reported in the *Boston Advertiser*, by Dr. O. Wendell Holmes, at a recent annual meeting, in the house of the late Mr. G. Ticknor, of the Society to Encourage Studies at Home. He asked—

SHALL WE READ?

That is shall we make a serious business of reading? This seems a strange question to ask, but let me give some meaning to it. It was at the hospitable board of this very house that I heard the late Mr. Edward Everett tell a story of Lord Palmerston, which I have never forgotten, and often repeated. Some one asked him—

"Have you read a certain book?" naming it.

"I never read printed books," was Lord Palmerston's answer.

Mr. Everett did not explain or account for this answer, so far as I remember, but I suppose he meant that he had enough to do with reading written documents, newspapers, the faces and characters of men, and listening to their conversation to find out what they meant—perhaps quite as often what they did not mean.

Some persons need reading much more than others. One of the best preachers I have known read comparatively little. But he talked and listened, and kept his mind sufficiently nourished without overburdening it. On the other hand, one of the most brilliant men I have known was always reading. He read more than his mind could fairly digest, and, brilliant as he was, his conversation had too much the character of those patch-work quilts one sees at country cattle shows, so variegated was it with all sorts of quotation.

The first time I ever visited Theodore Parker he was not quite thirty years old, and I own that his reputation as a scholar had not reached me. In looking round his library, I saw upon his shelves the great series of quartos—which I knew by their title only, if at all—Brucker's *Historia Critica Philosophiae*. "You have hardly read that, I suppose," I said, not thinking that any student, in these degenerate days, grappled with these metaphysical monsters of primitive erudition. "Oh, yes, I have," he answered very quietly; and then I, who thought I was dealing with a modest young divine, of the regulation pattern, took another look at the massive head of the young man, whom Mr. Wendell Phillips has lately spoken of as the "Jupiter of the pulpit." Somewhere between these two extremes most of us find ourselves. But we must remember the French saying, *L'appétit vient en mangeant*, or, as Hamlet would phrase it, increase of appetite grows with what it feeds on; and if we do not love books enough naturally, we must acquire the habit of loving them, if possible, as people acquire bad habits—that of intoxication or opium eating, beginning with a little, and trusting that by-and-by we shall thirst for more.

Dr. Holmes discussed another question as follows:—How shall we read? I must answer this question very briefly. I believe in reading, in a large proportion, by subjects rather than by authors. Some books must be read tasting, as it were, every word. Tennyson will bear that, as Milton would, as Gray would for thy taste; every word themselves, as Ude or Careme would taste a *potage* meant for a king or a queen. But, once become familiar with a subject, so as to know what you wish to learn about it, and you can read a page as a flash of lightning reads it. Learn a lesson from Houdin and his son's practice, of looking in at a shop window and remembering all they saw. Learn to read a page in the shortest possible time, and to stand a thorough examination on its contents.

Dr. Holmes suggested to his audience to consider how ill we should do without reading. "Life," he said, "for a man is a sentence of capital punishment, with a respite of a few scores of years. For a woman it is the same, with punishment during a large part of the period of respite. As daughter, sister, wife, mother, aunt, grandmother, her work is, in most cases, to a great extent indoor work. There are no bars or bolts to her prison, but she cannot escape from it. All prisoners find something to do, or they will feel upon their own souls and bodies."

Carrier pigeons, it is reported, have been put to a valuable and ingenious use by an Isle of Wight doctor. After seeing his patients in each village, the doctor writes a list of prescriptions, affixes it to the leg of a pigeon, and sends the bird home. The prescriptions are thus made up long before the doctor's return, and the medicines for those living at a distance are enabled to be despatched at once.



The Family Circle.

"Home, Sweet Home."

THE DAY YOU'LL DO WITHOUT ME.

IN TWO CHAPTERS.

CHAPTER I.

The day was full of sweetness and light, the glory and warmth that only summer can shed over and extract from the land. Down to the left of the verdure-covered old Vicarage-house—where the chief action of the story I am relating took place—broad meadow-lands lay bathed in a purple haze—purple haze that spoke of intense heat in the open, and that made even the self-absorbed young pair under the trees on the lawn grateful for the shelter afforded them. Any one who had seen them there would have seen the naturalness of such self-absorption, and at the same time have felt sorry for it. For though the dawning liking between them was "natural," it was not fit. The girl was the third daughter of a poor country parson, who eked out a slender professional income by taking pupils. The boy was the highly-prized son of a noble house. And still they were allowed to be together!

The young fellow of seventeen, though he had not come to his full heritage of manly beauty yet, was a very worthy idol, so far as appearances went, for a young girl to set up and worship. He had the slender, clearly defined, delicate form and features that belong to the handsomest race in the world—the English aristocracy. There was a look of "breed" about him that was unmistakable—that look that is never seen unless blood and culture have aided in producing it. What wonder, then, that May Baron contrasted him with the well-to-do young farmers in her father's parish; and having done that, erected an altar in her heart, whereon she worshipped Lionel Hastings unceasingly! She was supremely happy this morning, for her mother had given her a half-holiday to dispose of as she pleased. That excellent mother, on household cares intent, quite believed that she would go off for a stroll in the woods with some girl-friend, as it had been her wont to do from her childhood. But Lionel magnificently ordered her to "stay and read poetry to him under the weeping-willow;" and she was only too pleased to obey him.

The sunbeams fell down like scattered gold through the leaves, fell down flickering on the two young heads—the boy's covered with crisp curls of dark brown; the girl's crowned with such golden tresses as only fall to the lot of one woman in a thousand. The masculine head reposed comfortably on the boy's own folded arms. The feminine one was bent down over a volume—a collection of miscellaneous poetry—from which she was reading lines and verses at random.

"This is very jolly," Lionel said languidly, for the heat was subduing him. His only reason for speaking at all was that May had kept her violet eyes cast down on her book for a long time, and he liked to look at them often.

He had his "taste's desire" at once. Without a moment's tantalizing delay she lifted her silken fringes obediently, and bent her honestly adoring gaze upon him, as she said, sympathetically: "Yes, isn't it? No lessons, and such sunshine!"

"And you so jolly pretty," he cut in, with a vast increase of energy. Then he withdrew one arm from under his head, and flung it round her slender waist—slender certainly, for though May was sixteen, she was symmetrically and perfectly formed. "Now, you may go on reading," the young sultan said, as May acknowledged his caress by saying, "Oh, dear Lionel!" A rosy color flushed the girl's face. The thought that perhaps she ought not to let Lionel Hastings treat her as he might his sisters crossed her mind and clouded her happiness for an instant. Then, in purity and innocence, she blamed herself for even that thought, condemning it to herself as "dreadful." Then in her confusion she began reading at random, selecting by chance the very poem she ought not to have

selected. It was an American poem, written by an anonymous author, and deserves to be more widely known than it is. One verse ran thus:

"You call me true and tender names,
And gently twine my tresses;
And ah! the while my happy heart
Beats time to your caresses.
You love me in your tender way!
I answer as you let me;
But oh! there comes another day—
The day that you'll forget me."

Her voice had faltered more than once in the reading, and he had watched her confusion, and enjoyed it with half-laughing malice. Boy as he was, he knew so well what was in the young girl's heart. He thoroughly understood her sudden shame, and perfectly realized how keenly the dread that he might go away and forget her, cut May Baron.

"Look at me, pet!" he said with sudden authority.

"I—I am looking for something else to read," she stammered.

"Look at me, and confess! Aren't you sorry you read those lines, because they describe your own situation and feelings to a certain degree?"

"Lionel, don't be so rude and cruel."

He had taken her chin in his hand, and turned her face toward him. And she knew that her face was telling the truth, that she loved him much! "My own pet!" he said, more softly and seriously. "I shall never go away and forget you—trust me for that." Then he reared himself up, and kissed the little face that was rich with happy blushes now; and May was well content to believe him. "I shall have you painted by Millais," he said presently, lying back and regarding her critically.

"Shall you?" She was slight with pleasure at the way in which he was assuming the right to direct her and manage for her in the future. "Who is Millais? Is he any one I ought to know about?"

"He's one of the greatest painters alive," he said with reproving gravity. "I don't know that I shouldn't put him at the top of the list of English painters, if it weren't for Leighton's conflicting claims. Of course you ought to know about him, pet; only, how should you know about any one while you're kept cooped up here!" Then he went on to tell her that Millais had painted his two sisters, both of whom were great beauties and celebrated belles, and both of whom were married to peers of the realm. "They were the youngest brides of their respective seasons," he added. "Ida was only sixteen."

"Sixteen! my age!" she exclaimed in astonishment.

"Yes, by Jove! you are sixteen. But my sister Ida looked much more of a woman. She had no end of offers; but my mother knew that St. John would come on at the end of the season, so she kept Ida free."

"It was lucky your sister Ida didn't care for any of the others," she suggested timidly.

"She did though. She was an awful goose about a fellow called Bartie Friel; but he hadn't the needful. The best of it is that he's St. John's cousin, and introduced St. John to Ida. He thought—the boy paused, and laughed lightly at the absurdity of it—"that Ida would win old St. John's liking, and get him to give Bartie something good; but Ida won something more than old St. John's liking—she won the title and coronet."

"And his heart?"

"His heart! I don't know about that; he's popularly supposed to have lost his heart thirty years ago to my mother."

"Then he must be quite old?" May questioned in angry surprise. "Tell me, Lionel, is he quite old and gray?"

"Of course he is. He's fifty, and Ida's eighteen."

"Poor thing!" May ejaculated with honest pity.

"Very few people speak of Lady St. John as 'poor thing' I can tell you," he said, laughing. "She's the leader of about the best *coterie* in London."

"Poor Mr. Friel then," she then said softly.

The Boy's face clouded. "Bartie Friel is—" He stopped abruptly.

And she asked with interest: "Is what?"

"Never mind; I can't tell you, pet. Something you ought not to hear till you're a fashionable young lady," he added, half sneeringly; then he ended by saying: "He's not half such a good fellow as old St. John, after all."

They were summoned to luncheon soon after this, and May went in dreamily, her head being full of faint outlines of the romances in real life, of which Lionel's sister Ida was the heroine.

The dining-room of the picturesque vicarage was as dreary an apartment as drab furniture and dingy papered walls could make it. Nature had done a great deal for the room by throwing garlands of blush roses and French honeysuckle across the lattice windows; and through these floral shades the sunbeams fell in the dancing, graceful way in which sunbeams do play through leaves. But, alas! all beauty and grace came to an end here. The coarse, crude, time-worn, children torn furniture could not be beautified even by the sunbeams. We are so apt to accuse the mistress of a house of "want of taste" if her surroundings are ugly and stiff and soiled. But how can a woman with an empty purse and full hands drape windows artistically, and polish up her household gods perpetually? Poor Mrs. Baron most certainly had not solved the difficult problem of how this was to be done. She has seen things fade and grow more and more dilapidated year by year, and she had made strenuous efforts to repair them. But repairing is not replacing, and things had been meagre even at the beginning; so now it was but small wonder that an air of dull though decent poverty should reign over everything inside the house.

It may be asked: "But with daughters who were grown up, should the taste of beautifying, or of attempting to beautify, have been left to the already overworked mother and manager?" The answer is simple enough. The two elder girls were wearing their way through the world as governesses. And May's education was incomplete, she being only sixteen. Truth to tell, May had never troubled her handsome little head about any of these shortcomings of her home, before this awakening day. But now when she sat down to luncheon, something about the dinginess of the room struck her as being sordid and utterly inharmonious; utterly out of keeping with the refinement that surrounded Lionel Hastings like an atmosphere.

Her meditations on this subject were put to flight abruptly. Her father spoke in agitated tones—tones which the poor wife knew so well portended fresh anxieties, fresh struggles, fresh combats with poverty. "Lionel, I have had a letter from lady Hastings this morning; she thinks that the sooner you go to Oxford the better." Mr. Baron's voice trembled very obviously. Lionel "going to Oxford" meant the direct loss of three hundred a year to the poor overwrought vicar of Balton.

It is needless to recapitulate here all that was thought and felt and said after the key-note of separation had been struck. In the midst of the boy's natural delight at the proposed change, there was a pang of regret at the idea of parting with May. Pleasure and sorrow were delicately blended in his heart, and they filled the situation with emotional interest. But in May's heart it was all pure sorrow, unmixed with any pleasurable sensation at all. He was leaving her, going to Oxford; going to be "a man," going to "begin life;" and in these facts he found compensation for leaving her. But she only felt that she was losing him! For her there was no compensation either in the present or the future. Lionel was going away! With the bashfulness of a girl's first love, she never once thought of censuring him ever so slightly for not feeling this approaching separation painfully, as she felt it. It was natural, she told herself, that boys should long for and revel in the commencement of their emancipation from the trammels of their boyhood. Especially was it natural that Lionel should do so. Light as her father's rule over the lad was, still it was a *rule*, and Lionel was born to be "free," if ever human being was so. Thus she reasoned and argued against her regret at his going, and went on regretting it just the same. The positive difference which would be necessitated in the household arrangements by loss of that sum which Lionel represented to her mother never occurred to her. She was too young and loving and thoughtless to cumber herself with domestic cares, or take thought for the morrow of domestic life.

It did not occur to Lionel that he ought to say something more definite than he had said to the girl, whose whole horizon was darkened by the thoughts of his departure. He had meant loyally and lovingly; and so, when he kissed her on the lips, and put a gold ring on her finger, he thought he had done all that was needful. When the time came for him to marry—fellows of his "order" married early—he should marry May, of course. Meantime it was useless to talk about it. And May relied unconsciously upon the fidelity he did not plead; but still thought far more impatiently about that "meanwhile" than he did.

(To be Continued.)

A Hurried Dinner.

"Oh, see here, Lizzie, I shan't be home to dinner to-day; there's a lot to do at the office, and I'll not come home."

This speech came from my liege lord, Charley, as he popped his head in at the front door, after he had started to his business.

"All right," said I.

The head popped out again, and I added to myself:

"Mihgty glad of it. I wont have any dinner to get, and I will have a good day to work up stairs."

So I cleared away the breakfast, tidied up the rooms, and after that took myself upstairs.

We had not been keeping house very long, and I made it a rule not to let things become soiled by using, but to keep them clean and fresh.

But up stairs there were certain trunks and boxes that needed renovating; some of the summer clothing was to be packed away and the winter wear got out and made ready for use.

I tied a handkerchief over my head to keep out the dust, pulled trunks and boxes out of the closet, and set to work.

I was in the very midst of it, when I heard footsteps at the front door, and directly it opened.

It was Charley, I knew, for he had a latch-key and was accustomed to let himself in. I jumped to my feet.

"Charley, and not a sign of dinner?" I exclaimed. He said he wouldn't come. What can have brought him?"

The sound of voices, as I stood listening, assured me of what Charley had brought. Visitors, and I in such a plight.

Charley came running up stairs, with his face in a glow.

"Why, why, little woman, what's all this? I couldn't find you anywhere down stairs. Isn't it dinner time?"

"Yes, Charley, but you said you were not coming home, and I didn't want anything for myself."

"Well, I—wasn't. But who do you think I met?"

"I don't know, I'm sure."

"It was Liston and his wife. They were on their way to a hotel, but of course I wouldn't allow that. I just brought 'em home with me to dinner."

I have no doubt there was a spice of irony in the tone in which I answered, calmly:

"Yes, I see you did. Well I hope you also remembered to stop at the butcher's and send in something for them to eat."

"Well, I declare, little woman, I forgot the butcher. But I dare say you can scare up something. Only hurry, for they've only an hour or so to spare. They're off again this evening."

I knew it was of no use to say to a man, "Why didn't you send me word?"

It wouldn't teach him to send it next time. So I only said:

"Well, go down and entertain them, and I'll come as soon as I can change my dress."

Charley obeyed, and I hurriedly dressed, not in the pleasantest mood.

They were old friends of Charley's and I had looked forward to meeting them with pleasure, but I knew Mrs. Liston was quoted as the very pattern of all pattern housekeepers, never flurried or put out by anything.

I knew too, that she had means and servants at her command, while I had neither, and dreaded to receive her in such a manner, more than I could tell, but as many a suffering sister will readily comprehend.

What with my hasty dressing, I knew my cheeks were flushed, and my hair tumbled. But it was too late to wait, so I ran down, and stood fire during the introductions as well as I could, quite conscious that instead of appearing my best I was appearing my worst, as even Charley could see.

As soon as possible I excused myself, saying, by way of apology, that I was not expecting Charley, and must prepare dinner in haste.

"Pray, don't put yourself to any trouble," said Mrs. Liston, politely.

"It's no trouble at all," I as politely replied, feeling as I went to the kitchen, that that small speech was at least a fib, for I was almost at my wits end to know what to do.

A happy thought struck me!

Oysters!

A regular dinner was not to be thought of, but most people were very fond of oysters. I knew Charley was, and I could prepare them well.

They were to be had opposite, and I was not long in getting them either.

I bethought myself of half a cake which I luckily had. That nicely sliced, in my silver cake basket, would answer for dessert, with some apples, which I bought with the oysters.

Really, I should not do so badly for an impromptu occasion.

My spirits rose as I set the table, adorning it with a cluster of fresh chrysanthemums, and with glass and silver I possessed, so that it looked very neat and pretty.

That, at least, Mrs. Liston could not find any fault with, even if she were disposed to do so.

Charley had said hurry, and hurry I did. As speedily as possible I had everything ready on the table and the dessert arranged on a shelf by the open pantry window, so that I could put it on at once.

Tired, flushed, nervous and doing my best not to look cross, I went to the parlor, where they were chatting gayly, and announced dinner.

Then that awkward Charley must put his foot into it, man-fashion, by saying:

"My little wife is a famous cook. I hope you have a good appetite."

"Indeed I have. Traveling always makes me hungry," replied Mrs. Liston, rising.

I made some laughing reply, and led the way to my little dinner.

"Ah, oysters!—my favorites," said Mr. Liston.

I was glad to hear that, but my heart sank when Mrs. Liston declined to take any, saying she never ate them.

"I am so sorry," I said, flushing. "But I will poach you a couple of eggs."

"By no means," she said, pleasantly. "I shall do very well with one of these rolls and a cup of coffee."

And when I insisted, she was obliged to say that she never ate eggs."

I was at a loss what to propose then, so I ceased to press the matter. Meanwhile I had poured the coffee.

I handed the cups, but I knew by the aroma which reached my nostrils, that, though tolerable, it was not nearly as good as usual, for in my haste I had made it too weak.

I was specially mortified at this, as I prided myself on my good coffee.

"I won't apologize," I thought proudly.

But my pride fell the next instant, when Charley, having tasted his, made a queer face, and then tasted again.

"Why, Lizzie, what ails your coffee?" he asked.

Tears of mortification rushed to my eyes, but Liston said, kindly:

"Tut, tut, there are worse things than weak coffee in this big world."

Of course, as I had no servant, I was obliged to remove the plates and bring on the dessert myself.

That, at least, was nice. But when I went into the pantry I barely suppressed a scream of horror.

Mrs. Dean's big gray cat had jumped into the window, and was contentedly munching my cake.

With frantic haste I dashed her off and rescued what she had left.

Only six thin little slices. They looked so forlorn in the large basket that I would not put them on in that way.

I consigned them to a small glass dish and without a word of apology put them upon the table; for my blood was up now and I vowed I would apologize no more.

The apples were nice, and we finished on them as well as we could.

For my sake Charley tried to appear very gay, but I saw he was deeply mortified, and I did not pity him half as much as I might.

I think I was quite excusable when I said to him, after that dreadful dinner was over and our guests were gone:

"Charley, if you ever bring company again without letting me know first, I'll never forgive you. And I'll order dinner from the nearest restaurant, and leave you the bill to pay."

But that stupid Charley "can't see why it need worry me."

The Next Best Thing.

"Mr. Moncton," said my grandmother, "I have no wood to burn to-day. What shall I do?"

"O, send Louisa round to pick up some," said the good man, making a stride towards the door.

"But she has picked up all she can find."

"Then let her break up some old stuff."

"But she has broken up everything already."

"O! well, then, do the next best thing—I must be off," said the farmer; and off he went, whistling on his way, and no doubt wondering in his heart what the next best thing would turn out to be.

Noon came, and with it came my grandfather and four hungry laborers. My grandmother stood in the kitchen, spinning on her great wheel, and singing a pleasant little ditty; Louisa was scouring in the back room, and the cat purring on the hearth before a black and fireless chimney, while the table sat in the middle of the room ready for dinner, with empty dishes.

"Well, wife, here we are," said my grandfather, cheerily.

"So I see," said she placidly. "Have you had a good morning in the corn-field?"

"Why, yes, so so. But where is the dinner?"

"In the pot on the doorstep. Won't you see if it is done?"

And on the doorstep, to be sure, sat the great iron pot, nicely covered, but not looking particularly steamy. My grandfather raised the cover, and there lay all the ingredients of a nice boiled dinner—everything prepared in the nicest manner, and all the vegetables as raw as they had ever been. My grandfather stared, and my grandmother joined another roll to the yarn upon her distaff, and began another verse of her song.

"Why, woman, what does this mean?" began my grandfather indignantly. "This dinner isn't cooked at all!"

"Dear me, is it not? Why it has set in the sun this four hours."

"Set in the sun!"

"Yes, you told me to try the next best thing to having a fire, and I thought setting my dinner in the sun was about that."

My grandfather stood doubtful for a moment, but finally his sense of humor overcame his sense of injury, and he laughed aloud. Then he picked up his hat and said: "Come, boys, we might as well start for the woods. We shall have no dinner till we have earned it, I perceive."

"Won't you have some bread and cheese before you go?" asked my grandmother, generous in her victory, as women always are. And so she won the day.

How Silver Thimbles are Made.

The manufacture of silver thimbles is very simple, but singularly interesting. Coin silver is mostly used, and is obtained by purchasing coin dollars. The first operation strikes a novice as almost wicked, for it is nothing else than putting a lot of bright silver dollars, fresh from the mint, into dirty crucibles, and melting them up into solid ingots. These are rolled into the required thickness, and cut by a stamp into circular pieces of the required size.

A solid metal bar, of the size of the inside of the intended thimble, moved by powerful machinery up and down in a bottomless mould of the outside of the thimble, bends the circular disks into the thimble shape as fast as they can be placed under the descending bar. Once in shape, the work of brightening, polishing and decorating is done upon a lathe. First, the blank form is fitted with a rapidly revolving rod. A slight touch of a sharp chisel takes a thin shaving from the end, another does the same on the side, and the third rounds off the rim.

A round steel rod, dipped in oil and pressed upon the surface, gives it a lustrous polish. Then a little revolving steel wheel, whose edge is a raised ornament, held against the revolving blank, prints that ornament just outside the rim. A second wheel prints a different ornament around the centre, while a third wheel with sharp points makes the indentation on the lower half and end of the thimble. The inside is brightened and polished in a similar way, the thimble being held on a revolving mould. All that remains to be done is to boil the completed thimbles in soapuds to remove the oil, brush them up, and pack them for the trade.

Minnie May's Department.

MY DEAR NIECES,—I have been hard at work making a little window garden, and I wonder whether some of you might not like to do likewise. It is so nice in the middle of winter to have a little green spot, where one can dig and rake (though it be only with a fork), and breathe in spring-like odors from the earth and green things growing, and when they bloom every flower seem like a part of summer! We must first get a good-sized strong box, and bore a dozen small holes through the bottom of it; place this in another box, such as a tea-chest, containing a little earth. This will make a stand for it, and allow the upper box to be watered freely, without any danger of the earth getting mouldy and the box too damp, as any excess of water—that is, more than the soil needs—will drip through into the lower box and be absorbed by the dry sand it contains. Fill the plant box first with about an inch of pebbles and fibry loam or moss, then a little earth, then any plants you wish to transplant, and fill up with rich light earth. Place your garden in a sunny window, in a moderately warm room. There are many ways of ornamenting these boxes. A very pretty effect is made by covering the sides with dried mosses, stuck on closely, so that the plants seem rising from a bank of moss. Another way is to paint your box in Japanese style, in the way we explained last month. As to the device of plants, they are innumerable. Perhaps the easiest to grow are geraniums. Almost all bulbs may be raised by planting in October and keeping them in a dry room, covered over with slates, so as to exclude all light. Just water enough to keep them from drying up, and as soon as the first leaves show remove them to your winter garden. About January you will be rewarded with a profusion of flowers.

MINNIE MAY.

Answers to Inquirers.

A. J. W., Lakeland.—To mix carbolic acid with whitewash, put four ounces in each pail of whitewash.

JAMES L.—By all means go to bed early, and rise early to do your lessons. Never study late at night when you can get up early in the morning.

M. QUICKET.—It would be improper indeed for a young lady to make a matrimonial proposal to a gentleman, however marked his attentions may be to her. If these attentions have been paid for a length of time, and undisguisedly before the family and friends of the young lady, her father or some near relative should ask him to explain his intentions.

BOY.—To be constantly moistening the adhesive portions of postage stamps and envelopes is certainly unwholesome.

R. C., Kingston.—“Can you give directions how to blanch almonds, and oblige a correspondent?” Place the almonds in cold water, over a fire; let them remain until the water is at boiling point, not allowing it to boil; then take them out and throw into cold water. Remove the skins and dry the almonds with a cloth before using; or, when they are to be pounded for macaroons, meringues, &c., they should be first dried for two or three days in a gentle heat.

WALL PAPER.—M. J. S. asks what she shall put into paste to prevent insects from eating wall paper to get the paste. Use oil of cloves, alum or carbolic acid.

Polonaise is pronounced as though it were spelled polonaze.

PETROLEUM.—O. W. S., M. D., says:—“Equal parts of petroleum and castor oil make the very best application for any kind of leather, especially for outdoor service. This combination is very softening, penetrates rapidly, is antiseptic, does not gum, never becomes rancid as will animal fats; and mice will not touch a harness to which the petroleum mixture has been applied. I have tried many—this is the best.”

WELLINGTON'S HORSE.—P. P. says in answer to W. M. T.: “The Duke of Wellington rode Copenhagen, a chestnut horse which he had ridden at the battle of Toulouse, from 4 in the morning till 12 at night of the day of the battle of Waterloo. Copenhagen died blind in 1835, aged twenty-eight years, and lies buried within a ring fence at Strathfieldsaye.”

ELLA asks for a recipe for polishing silver or tin. Sprinkle freely the best kind of dry zinc—No. 1, such as painters use—after rubbing it fine with a knife, upon a soft flannel cloth (or the top of an old woollen stocking will answer); then rub the silver, etc., with the cloth; then brush off with tissue paper, or any clean soft cloth or paper, and all will be as bright as new.

S. A. R., Tallahassee, Fla.—“Will some of your lady readers give me a recipe for taking spots (from dampness) out of kid gloves; also, how to clean and dye kid gloves, so as to have them soft?” Spots caused by perspiration cannot be entirely removed from kid gloves, but the gloves may be cleaned with but little trouble in naphtha. A half-pint will wash three or four pairs. Put the naphtha in a porcelain dish; draw the gloves on the hands and dip them in, rubbing together with the same motion as in washing the hands; when clean rub dry with a fresh towel. This will take but a short time, as the naphtha quickly evaporates. Some wash gloves in naphtha the same as they would wash a handkerchief, afterwards hanging them up to dry, but the process given is preferable, as by drying them on the hands they retain their shape. It does not pay to dye kid gloves, when done by a proficient even; it renders them somewhat stiff.

RECIPES.

ANGEL FOOD.

Here is a recipe for “Angel Food,” the delicious white cake which is becoming so popular. In taste and appearance it is everything that cake should be:—The white of eleven eggs, one cup of flour after sifting, one teaspoonful of cream tartar. Sift the flour and cream tartar four times. Beat the eggs to a stiff froth, and then beat in one and one-half cups of granulated sugar and a teaspoonful of vanilla. Add the flour, and beat lightly but thoroughly. Bake in an ungreased pan, slowly, forty minutes. The pan should have a tin strip projecting above each corner, in order that when it is turned over to cool the air may circulate freely under it. Cut it out when cool. The pan should be a new one. An ordinary pan will answer, if it be set up on the edges of two other pans to cool. Some housekeepers find that this cake bakes beautifully in an earthenware dish. It is necessary that the oven should be a slow one; if it is very hot the door may be left open. The cake should rise gradually.

BARBERRIES.

Barberries may be put in jars in bunches, and covered with cold vinegar. They make a very pretty garnish for the edge of dishes, and also make a cooling, pleasant dish for a feverish patient.

NASTURTIIONS.

After the flower has gone off, take the green seeds that remain; pick off the stems, and put them in sufficient cold vinegar to cover them. They will keep good a year, and may be used as a pickle, or instead of capers for boiled mutton.

TOUGH STEAK.

Instead of pounding out it with a sharp knife, making fine parallel cuts on either side until every part has been crossed and recrossed. Press it together and lay on a wire broiler. Hold close to the fire until each side is seared to retain the juice, then turn and tend with the utmost care. Place the steak upon a hot platter, and season with bits of butter, pepper and salt.

MACARONI AND CHEESE.

Take one-quarter of a pound of macaroni, three ounces of dry grated cheese, one-half ounce of butter, one-half pint of milk, one egg, one gill of cream, a little pepper and salt, and one grain of cayenne pepper. Wash the macaroni slightly in cold water, but don't soak it; then cover it with cold water and boil fifteen minutes; then turn the water off, add the milk, and boil half an hour longer. When boiled beat the cream well in a bowl, add the egg, and beat it well also, then add the pepper and salt—plenty of pepper and very little salt (the pepper helps digestion); add also the cayenne pepper; take two ounces of the cheese

and one ounce of butter, and put it in with the macaroni and mix well together; pour into a deep dish; sprinkle over the top the rest of the cheese; add a little more pepper and salt, divide into pieces the half-ounce of butter which remains on the top, and brown in the oven a few minutes.

POTATO PUFFS.

Take cold roast meat—beef, mutton, or veal and ham together—clean from gristle, cut small, and season with pepper and salt; also, cut pickles, if liked; boil and mash some potatoes; make them into a paste with an egg, and roll out, dredging with flour; cut round with a saucer; put some of the seasoned meat upon one-half, and fold the other like a puff; pinch neatly, and fry a little brown.

SAUSAGE.

A very nice way to cook sausages is to boil them first in water in a frying-pan; then encasing them in a covering of plain pie-crust, bake them until they are done. You may make a gravy, if you like, out of the water they were boiled in, adding browned flour, a small piece of butter and a little summer savory.

LIME WATER AND MILK.

according to the testimony of an experienced physician, is a most useful compound, not only for infants, but at a later period of life, when the functions of digestion and assimilation have been seriously impaired. A tumbler of milk, to which four tablespoonfuls of lime-water have been added, will agree with any person, even when other food is oppressive and fails to afford nourishment.

STUFFED TOMATOES.

Take a dozen firm, well-shaped tomatoes. Have a pound of cold roast beef, or the same of cold steak, or if you use raw meat it is just as good; chop an onion with a tablespoonful of parsley; add two teaspoonfuls of salt and a saltspoonful of white pepper; pound up six soda crackers; fry the onion thoroughly in a tablespoonful of butter, to which, when cooked, add the meat, which has also been divided; let it all cook thoroughly with the onion and parsley; take the tomatoes, cut off the stem end, which do not use; remove the inside of the tomato, and add to the meat; then mix the meat, &c., with the pounded cracker, fill the tomatoes, which are to be placed on a bake-pan, and bake for one hour in a moderate oven.

Helped by a Crow.

A little boy in New Hampshire had the bad habit of saying “I won't” whenever his mother told him to do anything he did not like; also of leaving things, when he was through playing, without ever thinking of the maxim, “A place for everything, and everything in its place.”

He was very fond of pets. One day he found a wee crow. Frank's father cut the crow's tongue so that he could be taught to talk, and very soon he had learned to say simple words. He would call “Ida” and “Frank” as plainly as the children.

There were some pear trees in the garden, back of the house, and one day Crow, as they called him, was seen picking off the pears. When told to come down he obeyed, but the next time, instead of coming when he was called, he turned his head on one side, and said, “I won't.”

“Crow, come down,” was the order.

“I won't” he answered again.

Frank heard him, and thought, “Do I answer my parents in that way?” He sat thinking; and the third time the answer came, “I won't.”

One day grandpa missed his knife. He searched all round, but could not find it. He thought Frank must have taken it; but Frank knew nothing about it. A few days after, the gimlet was missing, and Frank was charged with losing that too. The next day, while they were at dinner, his mother's thimble was taken away.

“I must find the thief,” said grandpa. He went to the door, and saw crow coming across the field. “Perhaps he is the thief,” said he, “I'll track him.” So he followed Crow to a hole in a stump; and there, sure enough, not only the thimble, but the gimlet, knife and various other articles were found.

Frank was delighted to have his honesty proved. “Dear old Crow,” he said, taking him up and patting him, “You have taught me two good lessons: one is to be careful what I say, and another to put a thing in its place when I have done using it.”

—[The Nursery.

On Doing Without.

Oh, Tom, I've just seen such a love of a bonnet! Pale blue, and tea-roses, half blown, and such lace! I'm sure that some poet could write a sweet sonnet About it, when over—well, somebody's face.

The cost? Thirty dollars. You know it's imported, The fashion, you see, dear, has but just come out, I tried it on, Tom, and oh! I was transported. Can't have it? Now, Tom, why? Can't I do without?

Let's see: here's the gas bill, the milk, and the grocers; Jack wants his new shoes, and the butcher's bill's due;

And the dress-maker— There, I see you wish to know, Sir, How much it all makes. Well, of course, forty-two.

Have I bonnets up stairs? Yes, Worn out? No, of course not.

But— There! I can't have it; to argue's no use. Well, Tom, then that table, all gilding and what no?

We saw at the auction. Don't scowl so, you goose!

The table is lovely. I'm sure that we need it; The parlor, you know, dear, is really quite bare. Twenty dollars: 'tis nothing; you never will miss it.

Why, Thomas, I'm shocked! Was that meant for a swear?

Very well, Sir; there's sure'y no use of your scolding. The gas bill, I hate it; the butcher still more. You're always reminding me— Hark! did the bell ring?

A bundle for you just been left at the door.

What's in it? No matter. I'll see for myself, then.

The shoes that you got on your way from the cars?

Oh, Tom, what a story! There, now, it is open. As I live, you extravagant wretch, it's cigars!

"Mr. Smith, for tobacco, to do and-so debtor." Five hundred cigars. Fifty dollars, no doubt.

Now, then, Sir—the gas bill, the milk—you had better Preach poor. Now that bonnet I *shan't* do without.

Keeping Winter Fruits.

Apples should be gathered as late as possible before cold weather, and should be picked with the hand to ensure soundness. Pack carefully in a clean, tight flour barrel, shake down gently and head up; place in a cool, shady shed that is well open to the air, or on the north side of a building, and cover up the top with boards. Lay the barrels on their sides on rails, and if very cold cover up the top with boards. Keep out of doors as late as possible and then remove to a cool, dry cellar, where air can be admitted on pleasant days. Here also the barrels should be laid on their sides and on rails.

Pears should be allowed to hang on the trees until frosty nights, when they should be carefully hand picked and wrapped separately in paper and packed in shallow boxes, where they can be easily examined, for some of them will probably rot. Keep covered to prevent shriveling. Place in a cool, dry cellar, and as they begin to ripen bring into a warm room and wrap in woollen cloth, and their flavor will be highly increased.

Grapes can be kept well into the winter if care is exercised. Choose the late ripening sorts, such as Clinton, Catawba, Diana, Isabella, etc. Select the finest and most matured bunches, carefully cutting out the decayed grapes, if any, being careful not to disturb the bloom; after sweating a few days on a shelf in a cool place, pack in baked saw-dust or cotton batting, one layer of saw-dust and one layer of grapes, and so on; keep at an even temperature and cool as possible, at about freezing point.—[Lake View Horticulturist.

Shun the inquisitive, for thou wilt be sure to find him leaky; open ears do not keep conscientiously what has been entrusted to them.

A Heart-Rending Case—An Innocent Man to be Hung.

From the most reliable reports we have as yet been able to procure, we glean the following dreadful account:—A young, lusty, stout, quarrelsome man named Cooke had, uninvited, entered the house of a peaceful, calm, weakly man of sixty years, named Monroe, in the township of Mulmer. In the presence of Monroe, Cooke takes improper liberties with Monroe's wife, and is remonstrated with. Instead of leaving the house, as he should have done, he prepares in a most violent manner to fight Monroe. The latter being weak, to defend himself and possibly his wife's honor, takes his gun, and (perhaps accidentally) shoots Cooke and kills him. Mr. Monroe immediately went to the house of Cooke's friend and told what he had done; the honorable man then went to the legal authorities and gave himself up, relying on the justice of the law of the land (the man's conscience in this act, being a calm man, must have directed him aright; had he the least fear of justice not being done him, he would have fled).

The case was tried at the Simcoe Assizes, held in Barrie on the 26th of September, and although it was shown by the evidence that a great deal of provocation had been given, yet the jury returned a verdict of guilty of murder; they, however, strongly recommended Monroe to mercy. Judge Armour sentenced the prisoner to be hung on the 17th of October, and further informed the poor old, peaceful, injured man that he could hold out

NO HOPE FOR MERCY!

We know none of these parties. We merely glean our information as yet from such reports as we have been able to procure. In this city there was one man we think undeservedly hung—merely because his whole mind had been too devotedly wrapped up in the fair lady of his choice. We will give further accounts of both these cases.

We by no means justify any one in taking the law in his own hands, but there are times when such a course is permitted. It is very difficult to draw the defining line justly, as the dispositions and tempers of men are extremely variable. If this poor man is hung it will be a heavy blow against the bonds of matrimony, and an encouragement to immorality and depravity. It will tend to make a man's house and home less private, consequently less endearing and less chaste. We hope and trust that every minister of the Gospel and every moral-minded man near Mansfield and near Barrie will sign a mammoth petition for the reprieve of the sentence passed. We further trust that our legislators may see the necessity of amending a law that has already, we believe, unjustly sent one innocent, harmless, honest man out of this world.

KEEPING ORANGES AND LEMONS.—The Confectioners' Journal gives the following directions for preserving oranges and lemons in warm weather: "Examine the fruits and reject any which are in the slightest degree bruised or chafed. Wipe them dry, carefully, and then pack them in boxes or barrels, in dry sawdust, (which is made from wood as free as possible from resin), so that they do not touch each other. Keep them in a cool, dark place. They can be buried in dry sand, but in this case should first be enveloped in fine tissue paper. If it is not of importance to preserve their external looks, they may be dipped into melted paraffine, which thoroughly protects them from change. Of course, they would not be generally saleable in this condition, but might be preserved in this way for home use, or for use in large hospitals, etc."

Another, and perhaps a better way, is to cover them in any kind of clean vessel, with clear sour milk, and lemons will keep fit for use all summer. The flavor is slightly changed, but in every other requisite they are perfect, being wholesome and good.

Creeds of the Bells.

AS READ BY MRS. SCOTT SIDDONS.

The poem was written by Mr. G. W. Bungay. The notes as to how it should be read are by Mr. Richard Lewis, author of the "Dominion Elocutionists."

How sweet the Chime of the Sabbath bells! Each one its creed in music tells In tones that float upon the air, As soft as song, as pure as prayer: And I will put in simple rhyme The language of the golden chime. My happy heart with rapture swells Responsive to the bells—sweet bells!

- (1) "In deeds of love excel—excel." Chimed out from ivied towers a bell. "This is the church not built on sands, Emblem of one not built with hands; Its forms and sacred rights reveal, Come worship here—come worship here. In ritual and faith excel." Chimed out the Episcopalian bell.
- (2) Oh heed the ancient landmarks well! To solemn tones exclaimed the bell. "No progress made by mortal men Can change the just eternal plan Do not invoke the avenging rod; Come here and learn the way to God. Say to the world farewell, farewell!" Pealed out the Presbyterian bell.
- (3) "Oh swell ye cleansing waters, swell," In mellow tones rang out a bell, Though faith alone in Christ can save, Man must be plunged beneath the wave To show the world's unflinching faith In what the sacred scripture saith.
- (4) "Oh, swell ye rising waters, swell!" Pealed out the clear-toned Baptist bell.
- (5) "Not faith alone, but works as well, Must test the soul," said a soft bell, "Come here and cast aside your load, And work your way along the road, With faith in God and faith in man, And hope in Christ where hope began; Do well—do well—do well—do well," Pealed forth the Unitarian bell.
- (6) "In after life there is no hell," In rapture rang a cheerful bell; "Look up to heaven this holy day, Where angels wait to lead the way, There are no fires, no fiends to blight The future life; be just and right. No hell—no hell—no hell—no hell," Rang out the Universalist bell.
- (7) To all the truth we tell—we tell," Shouted in ecstasies a bell; "Come, all ye weary wanderers, see! Our Lord has made salvation free. Repent! believe! have faith! and then Be saved and praise the Lord. Amen. Salvation's free we tell—we tell." Shouted the Methodist bell.

- (1) This line to be sung like a chime of bells; the second line is only read, but the succeeding five lines to "excel" should again be chimed, varying the chimes on each two lines. If the reader cannot sing the chimes, the lines may be read in a pure high tone.
- (2) Read in imitation of the tolling of a bell, deep and slow. Dwell on the Italic words like a pealing bell.
- (3) Read like No. 2, but higher pitch.
- (4) Rise higher on this line and chant "swell."
- (5) Same as No. 3, but softer tone. Swell with greater power on "Do well," &c., giving a chanting tone to "swell"
- (6) Loud and clear toll of a bell; chanting "No hell," &c., in a high triumphant tone.
- (7) Chant loud and clear. Rise higher on "Come all," &c. Chant loud and rapid "Repent," &c. The last line is to be read.

"How did you like the hymns?" asked Charles of his city cousin as they left the church on Sunday. "One of them was just splendid," replied she with enthusiasm. "Ah! which one?" "The one in the next pew with black, curly hair and such killing black eyes. Oh! I think he was the most fascinating 'him' of all." Charley became too much confused to pursue the conversation any farther.

Home.

Home is the one place in all this world where hearts are sure of each other. It is the place of confidence. It is the place where we tear off that mask of guarded and suspicious coldness which the world forces us to wear in self-defence, and where we pour out the unreserved communication of full and confiding hearts. It is the spot where expressions of tenderness gush out without any sensation of awkwardness, and without any dread of ridicule. Let a man travel where he will, home is the place to which "his heart untrammelled fondly turns."

Window-Gardening.

It is very pleasant to keep a few plants in the window, especially during the dreary months of winter, that one may have something bright and beautiful to look at—some reminder of sunny days and smiling blossoms. Plants thrive best in the south or east window, our days in winter being short. Plants need light; and as we can only give them at best a few hours of light, it is important that there should be as much warmth and brightness in it as can possibly be furnished. In fact, plants are like ourselves: they need air, light, warmth and drink, and if they are unriched these they will live and grow. The room in which they are kept should be one which is not subjected to great variation of temperature. The temperature should not be less than 40° in the night, and not more than 70° during the day, especially while the sun is shining in the room. Arrangements should be made for giving fresh air to the plants every day. The most convenient way is to have the upper sash movable, and let it down at the top when we wish to give fresh air, taking care that the plants are not allowed to stand in a draft of cold air. A plant confined in the house without fresh air will as surely become sick and feeble as will the child who is never allowed to run outdoors. The leaves of plants need washing occasionally in order to remove the dust that gathers on them and fills up the pores. When watering keep the earth moderately moist; water thoroughly but not too frequently. Study the natural habits of the plant you are growing, and water accordingly. It is a very common error in window-gardening to attempt too many at once; our most successful amateur florists seldom have more than a half-dozen varieties, as one plant properly looked after is better than a dozen neglected. The Heliotrope is a great favorite; the Hyacinth makes a beautiful window-plant, grown either in a pot or in water; the ivy may be grown in any part of the room; Zonal and Sweet-scented Geraniums make good window-plants, especially if they be provided with plenty of fresh air; Roses, especially the tea-scented, are beautiful window-plants; a nice pot of Mignonette, which costs but a few cents, is an excellent window ornament.

We present to our readers the above cut showing the manner in which plants are best placed for winter flowering.

No farmer can expend \$1 in any way that will give so much pleasure and profit to himself, his wife and his family as by subscribing to the FARMER'S ADVOCATE AND HOME MAGAZINE. Every person that cultivates a garden should have it.

The seedy part of a fig is an effective application for gum boils.

September.

The golden rod is yellow;
The corn is turning brown;
The trees in apple orchards
With fruit are bending down.

The gentian's bluest fringes
Are curling in the sun;
In dusty pods the milkweed
Its hidden silk has spun.

The sedges flaunt their harvest,
In every meadow nook;
And asters by the brook-side
Make asters by the brook.

From dewy lanes at morning
The grapes' sweet odors rise;
At noon the roads all flutter
With yellow butterflies.

By all these lovely tokens
September days are here,
With summer's best of weather,
The autumn's best of cheer.

But none of all this beauty,
Which floods the earth and air,
Is unto me the secret
Which makes September fair.

'Tis a thing which I remember;
To name it thrills me yet;
One day of one September
I never can forget.

—H. H.

Homely Girls.

"How did that homely woman contrive to get married?" is not unfrequently remarked of some good domestic creature whom her husband regards as the apple of his eye, and in whose plain face he sees something better than beauty.

Pretty girls who are vain of their charms are rather prone to make observations of this kind; and a consciousness of the fact that flowers of loveliness are often left to pine upon the stem while the weeds of homeliness go off readily, is no doubt in many cases at the bottom of the sneering question. The truth is, that most men prefer homeliness and amiability to beauty and caprice. Handsome women are sometimes very hard to please. They are apt to over-value themselves, and in waiting for an immense bid act themselves out of all reasonable offers in the marriage market. The plain sisters, on the contrary, aware of their personal deficiencies, generally lay themselves out to produce an agreeable impression, and in most instances succeed. They don't aspire to capture paragons with princely fortunes, but are willing to take anything respectable and lovable that Providence may throw in their way. The rock ahead of your haughty Junos and coquettish Hebes is fastidiousness. They reject and reject until nobody cares to woo them. Men don't like to be snubbed nor to be trifled with—a lesson that thousands of pretty women learn too late.

Mrs. Hannah More, a very excellent and pious person, who knew whereof she wrote, recommends every unmarried sister to close with the offer of the first good, sensible lover who falls in her way. But ladies whose mirrors, aided by the glamour of vanity, assure them that they were born for conquest, pay no heed to this sort of advice. It is a noteworthy fact that homely girls generally get better husbands than fall to the lot of their fairer sisters. Men who are caught merely by a pretty face and figure, do not as a rule amount to much. The practical, useful, thoughtful portion of mankind is wisely content with unpretending excellence.

Mixed Pickles.

If your sweet cake has too large holes in it, use less cream of tartar next time.

A bit of salt takes the unpleasant "bite" from horse-radish as prepared with vinegar for a spring relish with meat.

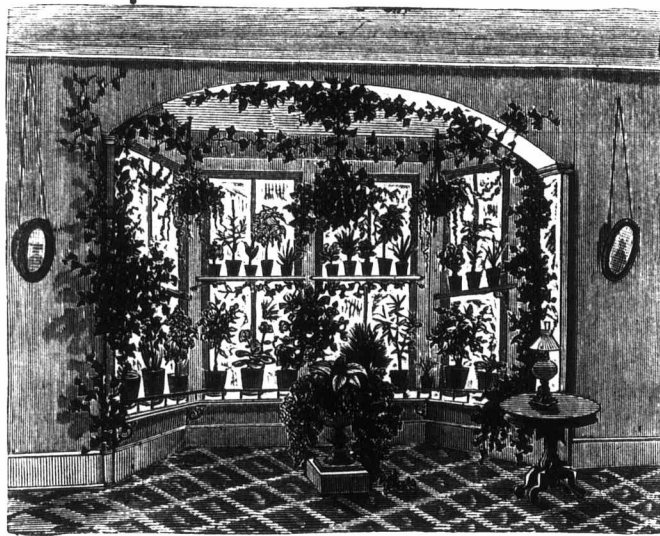
Equal parts of tar, molasses and vinegar boiled for two hours in a stone vessel, is an excellent cough syrup for long standing coughs as well as for more recent ones.

Do not brush black silk dresses, but clean them with a soft flannel cloth.

Love Gifts.

Love gifts should be of little intrinsic value; they should owe their preciousness to the hand that gives. The token of love should not, by its beauty or costliness, distract the attention for one moment from the meaning of the gift—heart speaking to heart, in language eloquent though dumb. What are the objects that have been gazed upon and kissed and wept over as priceless treasures? A "pretty ring with a posy," a glove, a true-love knot in hair or ribbon, or, as likely as not, a few faded flowers; but is there one who has loved who cannot recall to mind the throb of ecstasy, the glow of paradisaical bliss, with which the first love-gift was received—the silent messenger bringing the full assurance of love's return? The youth who has just obtained a lock of hair or simple rosebud, maybe from his mistress' hand, given after much pleading, would he part with it for a rose of rubies and gold? Would yonder girl as she sits in her chamber alone, turning on her finger the slight ring that binds her to him who has won her maiden troth, change it for a circlet of the costliest diamonds? Not for worlds!

An Irishman quarrelling with an Englishman, told him if he didn't hold his tongue he would break his impenetrable head and let the brains out of his empty skull.



WINDOW-GARDENING.

THE memory of early happiness is a treasure-house of sweet comforts and consolations. Its pure, simple, earnest joys become wells to draw from whenever we sit down in thirst and weariness by the dusty highway of life. Of this one good the world can never cheat us. The sunshine of those days reaches across our little stretch of life, and mingles its rays with those which beam from the heaven of our hope. The actual present of adult life, and the materials which enter into it, are made up of reminiscence more than we generally suppose. We ruminate, like the kine. We lay up in the receptacles of memory abundance of undigested material, which we recall and appropriate to our refreshment and nourishment; and this process of reminiscence—of living over again—grows upon us as we grow into years, till it becomes our all. Exhausted power has no resource but to dwell upon its old play and its old achievements. How sad he is who can never go back to his childhood without a shudder; who can never recall a period when his life was filled with sweet and simple satisfaction!

COMPASSION is an emotion which we should never be ashamed of. Graceful is the tear of sympathy, particularly in youth, and the heart that melts at the tale of woe. We should not permit ease and indulgence to contract our affections, and warp us into a selfish enjoyment; but we should accustom ourselves to think of the distresses of human life, of the solitary cottage, the dying parent, and the weeping orphan. Nor ought we ever to sport with pain and distress in any of our amusements, or treat even the meanest insect with wanton cruelty.

Aunt Tom's Department.

The Princess Louise.

We know that all of our nephews and nieces have not had the opportunity that we have had of seeing the Princess Louise. We know also that you, like everybody else, would gladly have embraced the opportunity of so doing. As we have had that pleasure, we will here have a little chat with you about her.

We have heard that she kept herself close and reserved. We wish to dispel that idea from your mind. She has made Toronto her home for the past three weeks, occupying the Lieutenant-Governor's residence while there. The citizens of Toronto did all they could to make everything pleasant and agreeable for her and the Marquis. Decorations, illuminations, public demonstrations, addresses, a grand ball, etc., were in order. She was greeted with cheers from thousands wherever she went. Many people who live hundreds of miles from Toronto went to that city for the purpose of seeing her. We know of one party in particular who remained three days in order that they might have a good look at her, and then returned to their home fully satisfied. People were crowded and ran to different places where it was supposed they could get a good view of her as she passed by in the carriage. The excitement was greater and continued longer than on any previous occasion in that city. The Princess, instead of being secluded as reported, was to be seen openly and unveiled; and when in Toronto was in all parts of the Industrial Exhibition, and was there many days. All had a fair opportunity of seeing her. One day she was with the Marquis reviewing the troops. Here she appeared on horseback, and showed that she was a good horsewoman, for she galloped about fearlessly and appeared as much at home on a saddle as in her own parlor. She dresses very plain and neat, appearing sometimes in light blue or bronze-green, drab or black silk, etc. Her dresses are usually made without the long trails and gawags I have often seen on pretentious ladies. When she visited Bishop Strachan's School in Toronto she wore a plain cotton dress and cotton gloves. Some frivolous ladies remarked that to dress in such material was degrading to one in her position, especially when appearing in public. Although some people may chime in with these ladies and call such dressing absurd, we think it shows the best of judgment to appear in plain and sensible attire. Does this not teach those schoolgirls—far better than a paid instructor could teach them—that a cotton dress and cotton gloves, if good enough for our Princess to wear, are also good enough for any of her subjects? How many are there in Canada who dress beyond their means and position? It is not dress that makes a princess; it is not dress that makes a lady—it is sound sense and judgment, and this we all ought to be taught. Let us apply this lesson to ourselves.

Some of you will probably ask, "Is she pretty?" Having seen her, we can hardly say that she is, in the sense that term is generally applied, although many do, for tastes and opinions differ. We consider that she deserves far higher encomiums than either pretty or handsome. She has what I should term a really good floral eye—discerning, mild, pleasing, and devoid of that flippant, vain, disdainful, coquettish, cunning and haughty cast, too often seen in the eyes of those who are called pretty women. She has a very pleasant-looking mouth, yet firm and decisive; a good forehead, and a sensible nose—not too thin or sharp. In stature she is rather below the average, but more robust than the majority of women. She has a good arm and chest, and brown hair.

She acts very courteously and respectfully to her subjects; in fact, we think her continual bearing must be irksome, and the oft-occurring demonstrations and the routine connected therewith, although grand and imposing to us, must begin to be tiresome to her, as our beloved Princess has more care, more duties, and more constant labor, than ladies in private life, which we hope she may not find too heavy to bear. We much regret that no proper reception was accorded her in this city. We believe it was, all things considered, the worst reception tendered the Princess and the Marquis on this continent. This did not occur from any disrespect or disloyalty, for there does not exist, either in Canada or Britain, a more loyal class of yeomanry and citizens than in this city

and vicinity. There has been some misunderstanding or bad management; at least, it can scarcely be accounted for in any other way.

While at the Toronto Exhibition, Mr. Grant, Agent for the Waterloo Yeast Co., was visited by the royal party. He not only praised his ware, but offered a slice of bread made with the Waterloo Yeast to the Princess. She took it and enquired if it was made from Canadian flour. She was answered in the affirmative, and she said the bread tasted very sweet.

The Governor and Princess had been invited to attend during the holding of the Western Fair (perhaps not properly). There had been due notice given and due preparations made, and great expectancy had taken hold of the minds of the inhabitants as to the glorious time they would have. But a telegram from Major DeWinton, the Governor-General's secretary, announced that the royal party would arrive two weeks prior to the appointed time. The people of London thought this would be a heavy blow against the success of the much-prized Western Fair, as a visit at that time must draw the loyal yeomanry, and very few people could afford either the time or means to attend both. The Mayor of the city informed Major De Winton that the inhabitants would rather have the visit postponed. The Major replied they must come. The citizens, feeling that a loss must be withstood, were not unanimous in making large expenditures. Some of the decorations erected were so inferior that they were ordered to be pulled down before the Royal party arrived, which was at 2 o'clock p. m. They left at 9 a. m. the following morning. The management was as bad a bungle as could possibly be; the presentation was a mere run by of every lady that chose, with a nod and a bob like a flock of sheep going over a rail.

We much regret that His Excellency has not had a proper opportunity of yet seeing the display of loyalty that awaits him and the Princess on this western peninsula. Neither has he yet had an opportunity of seeing the finest agricultural county of this Dominion, or the best agricultural exhibition in Canada. We hope and trust that our beloved Princess and the Marquis will, at some future time, pay the garden of Canada another visit. In no part of the Dominion could the Royal party find more patriotic and loyal people ready and wishing to greet them than they would find by a visit to this city, thence to Stratford, Exeter, Clinton, St. Thomas and Chatham. Without a sight of these places the best part of Canada cannot be seen.

The city decorations were very inferior. The *Free Press* made the finest illumination; the *FARMER'S ADVOCATE* was said to have made the best day-light decorations, and the *Advertiser* erected the best illuminated motto, which all will endorse, namely: "Will Ye no Come Back Again."

UNCLE TOM.

Illustrated Rebus.



A VALUABLE MOTTO.

Five dollars is offered to the first Senator, M. P. or M. P. P. that sends the correct answer to the above, and one dollar to the first paid subscriber that sends the correct answer; also twenty-five cents to every-one that is over one year in arrears who answers it correctly.

NOTE.—The above cash offers are only open until the first day of November. The applicants for the payment must state that they have fairly solved the rebus themselves, and now honorably, honestly and conscientiously ask for the prize.

[Our little nephews and nieces need not send in answers to this, as it requires a cash payment to complete the answer.]

PUZZLES.

90—CRYPTOGRAPH.

L dlgz, nerk, iunok dnxx ilo ondg, Loskg py 1 bklone rntdg hk mndg, Iuz ikggpec-bpeco ikbk wlgk ny endg; P xkembkg muto mn peombtrn ukb :—Dnxx leg dpcumepec dpcumepec lbk muk olwk; Ne klbm muky edlerk, yznw ukixke mukz rlwk : D nxx po nuk ontd'o kdkrmbpr ydlwk-Leg endg pmo hkomb rnegtrmb.

In this puzzle the letters are interchanged or written in hidden characters; thus, wherever you find "a" it is substituted for some other letter, and the same with the other letters. The puzzle is to find out for which letters the various characters are substituted, and to make the substitutions so as to form a readable verse. This may seem rather difficult to those unacquainted with the puzzle, but after a little practice and study they become comparatively easy and interesting. As this is the first of the kind we have given you, we will endeavor to give you a solution in the November number. Meanwhile we will wait and see how many of you can make anything out of it.

91—CHARADES.

1—Upon my last shines my first
And by its powerful ray,
Helps to tend and nourish it
Throughout each summer day.

A radiated flower is whole,
And of a yellow hue;
Some think it ugly, and, perhaps,
'Tis ugly thought by you.

2—My first is a very useful, though small article; my second is a biped; my third is seen on the ocean, and my whole refers to writing.

92—NUMBERED CHARADE.

I am a noted town of nine letters.
My 4, 9, 7, 8, 2 is a Swiss town.
My 4, 7, 2, 1, 9, 8 is a town of Hanover.
My 1, 2, 1, 9, 3 is a town in the East Prussia.
My 2, 4, 7, 5 is a river of Spain.
My 5, 1, 9, 7 is a Hebrew measure.
My 9, 1, 6 is an annual, native of Australia.

93—ENIGMATICAL BOUQUET.

1—A girl's name; an article; an adverb.
2—Precise; a girl's name.
3—A sentiment, a preposition, an article, and a fog.

94—TRANSPOSITION.

Klic hte edw no eth ontuanim,
Ekil het mafo no hte vrrrie,
Klic eth bbbuel no het tufnonai
Otuh tar egon dan orfeerv. HATTIE.

95—CROSS WORD ENIGMA.

My first in count but not in number,
My second in wake but not in slumber,
My third is in youth but not in age,
My fourth is in mint but not in sage,
My fifth is in shear but not in sheep,
My sixth is in night but not in sleep.
My whole is a native of the Philippine Islands.

96—DECAPITATIONS.

Curtail the inhabitants of a country in Europe and leave a river in Europe.
Curtail a certain animal and leave the Hebrew for master.
Curtail the sense of seeing, and leave to grieve.
Curtail a country in Europe, and leave a certain coin.
Curtail a certain vegetable, and leave an insect.
Curtail a certain article of clothing, and leave a wound.
Curtail a certain color, and leave a part of the human face. FANNY J.

97—CROSS WORD ENIGMA.

My first is in heat but not in light,
My second in depth but not in height,
My third is in sure but not in safe,
My fourth is in child but not in waif,
My fifth is in rain but not in snow,
My sixth is in sight but not in show,
My seventh is in wait but not in stay,
My eighth is in brown but not in gray,
My ninth is in ground but not in clay.
My whole is what all young folks should get.
M. J. M.

The best lip salve is a kiss. This remedy should be used with caution, as it is liable to bring on an affection of the heart.

Answers to August Puzzles.

81—Boots of all kinds. 82—Chestnut.
83—Birmingham. Manchester.

BELGIUM
INDIA
ROSECOMMON
M.T. BLANC
IPSWICH
NILES
GANGES
HOSSELT
DELAIDE
MADAGASCAR

84—Brighton Lyons London.

85—Palestine.

86—Dakota
Ganges
Canton
Coburg
Whitby
Orange

87—Be sure you are right then go ahead.

88—The letter I.

Names of Those Who Sent Correct Answers to August Puzzles.

Lizzie Annis, Nana Henderson, Minnie Dean, Herbert Kitchen, Eliza Blair, Ed Garvin, Gilbert McIntyre, Thos. M. Taylor, J. W. S. Richardson, J. C. Chisholm, George Nesbitt, Jas. Glennan, Willie Gray, George Hammond, Henry Willis, Bessie Nichols, Emily Webster, Frank McBeth, Nina Chapman, Tom Hall, Edwin Myer, Lizzie Northwood, Wm. Johnston, Robt. Jackson, Bessie Cutten, Edmund Nellis, Mary Leach, Jos. Jarvis, Chas. McKinnon, Henry Hanlon, Jennie Selby, Marnie Forbes, Arthur Lawson, G. A. Franks, N. J. Coombs, Ada Johnstone, John Skelding, Wm. J. Varkhill, Mrs. J. B. Walker, Sarah Cameron.

Credit is due Eliza Blair for having answered the greatest number of puzzles correctly.

Many verbal answers to the riddles in the supplement have been correct, but the material wanting to fulfill the last clause has not been so readily answered by delinquents as anticipated.

HUMOROUS.

Fox, the great orator, was on one occasion told by a lady that she "did not care three skips of a louse for him." He immediately took out his pencil and wrote the following:—

A lady has told me, and in her own house,
That she cares not for me "three skips of a louse."
I forgive the dear creature for what she has said,
Since women will talk of what runs in their head.

"When we reach the city we will take the horse cars," he remarked. "No we won't," she replied; "we will take a car that folks ride in, or go afoot. Catch me riding in them nasty stock cars. I've seen too much of them."

An Iowa lady took her little child into a cemetery for the first time, and upon showing him the marble figure of a lamb upon a grave, was at once appalled and delighted to hear him exclaim: "I suppose an old sheep is buried there."

"No man shall ever kiss me except my future husband," she said, as he was about leaving her at the gate. "Suppose I agree to be your future—" "Why, then, I'll kiss you," she replied, eagerly, and she did. Her mother was informed that he had proposed, and the old lady called around next day to fasten matters, and before he knew it he was eternally booked. It was a mean advantage, but a bird in the hand was worth two on a front gate.

Old Tom Purdie, Sir Walter Scott's favorite attendant, once said: "Them are fine novels of yours, Sir Walter; they are just invaluable to me." "I am glad to hear it, Tom." "Yes, sir; for when I have been out all day, hard at work, and come home very tired and take up one of your novels I'm asleep directly."

A small boy with a big cent in his hand stood before a Michigan avenue grocery for a long time before making up his mind to enter. When asked what he desired, he inquired: "If a boy should come here and get trusted for a stick of gum, how much would it be?" "One cent," was the reply. "And if a boy should come here with the cash how much would it be?" "Just the same." "Then I guess I'll get trusted," quietly remarked the financier, as he slipped the cent down into his pocket.

VIEWING IT DIFFERENTLY.—An old pioneer, who believed that "what was to be would be," lived in a region infested by Indians. He always took his gun with him; and once, finding that some of his family had borrowed it, he would not go without it. His friends rallied him, saying that there was no danger of the Indians, as anyhow he would not die till his time came. "Yes," said old Leatherstocking; but suppose I was to meet an Indian, and his time was come, it wouldn't do not to have my gun."

Keep Your Temper.

To keep a horse; to keep a carriage; to keep a house; to keep the books; to keep a shop; even to keep a boarding-house, is not so difficult as to "keep cool." Temper has its places in the economy of human life. It was meant to fit us to rebuke insolence, to repress arrogance, to make the feeble and gentle strong and courageous in resistance to wrong. An honest flash of it on an adequate occasion is not to be cried down. There are so many calculating, unreasonable, and selfish persons who would impose on their fellows, if they were not afraid of "rousing" them, that temper has its place. But it requires an immense amount of wisdom to keep it in its place.

He who would control others must be the master of himself. Parents who desire to rule their children, employers who wish to have proper control over their employes, teachers who would govern their classes, must rule their own spirit. A rough word spoken unjustly, a reproof given in heat, a shake or a blow perhaps, dealt in a hasty moment, not only does no good, but it seems to the sufferer to justify the present or some future wrong. And where one is judge in his own cause the balance is sure to be struck in his own favour. "Even if I did make a mistake, he was too angry; he was more wrong than I was; he ought to know better. I am the injured person." Such will be the conclusion of one who has been "blown up" in a passion.

To lose the respect of others is often a serious, sometimes an irreparable, loss. Those who have let themselves down, find it uncommonly hard to get up again. When Harry, a smart, reflecting boy of fifteen, has found the weak side of parent, or tutor, has seen him off parade, in undress, it is very difficult for the parent or tutor—conscious of the fact—to regain and assert authority. As the girls who have seen their mother flirt, disregarded her lectures on prudence; as the boys who have seen their father tipsy laugh in their sleeves when he warns them against drink; as the salesmen feel little reverence for the homilies on honesty of an employer whose tricks of trade they see daily; so, only in a milder way, the just and rightful authority of tutor or employer is lost, with habitual loss of temper.

Temper can be controlled. When the cook has sent up the dinner to your friends and you, with the fish spoiled, the meat overdone, and those grouse so horribly bungled that you wish they were on their native heath again, you can smile, and talk, and jest, and keep your temper. Regard for your friends secures control of it. When poor, awkward Thomas—coachman by right, footman by brevet—lets fall a little of the gravy on your dress, madam, how delightfully you behave! It is of no account. Your hostess is not to be put out by it. In fact, you are so amiable that one might suppose you rather liked grease-spots. You control yourself in company. Then it is possible to do it elsewhere. What can be done once can be done again, and the second time is commonly easier than the first, and the third easiest, and so in delightful progression. Please try it.

Have you noticed that when you proceed to talk to cook about the shameful way in which that dinner was sent up, the very talking seems to have a stimulating effect, and the temper rises as you proceed? That is human nature. Our eloquence affects ourselves, as the advocate's did his client, who burst into tears, as he heard the indignant appeal to the jury, and exclaimed, "I never knew before how badly I was used!" This seems to suggest that silence is desirable when there is any danger of temper. There are many forms of silence that are full of poetry. Silent dew, silent stars, silent woods, and silent moon, silent shores, and Coleridge's "silent sea of pines," all have a loveliness of their own; but there is a peculiar beauty about the silence of a man who is hurt, wounded, wronged, to whose lips the sharp and biting rejoinder leaps, and is there arrested. This is the silence that is golden—very scarce, and very valuable.

To be sure, silence may be sullen; it may be for taking time deliberately to plan the revenge. This is horrible. To nurse one's wrath, to carry it about, perhaps to "smile and smile, and be a villain," waiting for the fit moment to strike with effect, this is diabolical rather than human. It combines hypocrisy, fraud, and vindictiveness. It is a little thing—but it is true that he who does this, arms himself while preparing his revenge. The arrow he is hiding for his victim, wounds and poisons himself. If ever we are tempted to plan

wrongs for ourselves, let us hear that voice that says, "Vengeance is mine."

Fretfulness is a drizzling rain, that shuts out the sun; temper is a thunder-shower, preceded by gusts of wind, clouds of dust, and of which you say at last, "I'm glad it's over;" but sullen revenge is a continuous, bitter "north-wester" from off ice-fields, like that which stops the breath of the old and the little children. Good-temper is the day of sunshine, when the birds come out, the leaves gleam in a gentle breeze, the blossoms open, and "the trees of the field clap their hands."

It is not meant that life is so uniformly bright that we can never be ruffled. It is meant that we darken its sky, if we give way to temper. If a thorn enters one's hand, it is better to draw it out and throw it away than to strike at the bush. It is not meant that there are none who try one's temper. There are many—the idle, the forgetful, the vicious, the mar-plot, the kill-joys. What is wanted is, that the temper should stand the trial; that a man should retain his equanimity though every button be missing from his shirt, or his wife be five minutes behind time; that, as Pope has it, a woman should be.

"Mistress of herself, though China fall."

For most of us get more than we deserve; we need forgiveness as often as we exercise it; and we ought not to forget Him whose rights are paramount and often denied Him, but who is "long-suffering and slow to wrath."

A Good Word for the Bats.

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 be, however, that their peculiar hideousness has given additional strength to this feeling, for the Jewish legislation already declared them unclean and accursed, and the Greeks borrowed their wings for the harpies, as Christians have done for the Evil One. A poor, lost bat need but to fly into a room filled with company, and everybody is frightened. Superstitious people tremble at their mere presence as an evil omen; and the strong-minded among the fair excuse their terror by pretended fear of their hair, an apprehension which could be well founded only if the accounts of insects being harboured 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 whalebones 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 guests 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's hunt. 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, moth, and fly, and enjoy most of all those 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 confined to a small district in the tropics, and there occurs but rarely.

"Father of adored one—" Then it comes to this, sir; you have no fortune, you have lost your appointment, you have no prospect of another, and you come to ask me for my daughter's hand—and fortune?" "No! Suppose we put it this way: I am unembarrassed by wealth, am free from the cares of business, and my future is irradiated by hope; therefore, this is the crisis when I can best devote myself to your daughter, and enjoy that affluence with which you will crown our love."

We have received the *Art Amateur*. It contains interesting and instructive literary items, and artistic notes, hints, and illustrations.

It Can't Be Helped.

"Can't be helped," is one of the thousand convenient phrases with which men cheat and deceive themselves. It is one on which the helpless and idle take refuge as the last and only comfort—it can't be helped. Your energetic man is for helping everything. If he sees an evil, and clearly discerns its cause, he is for taking steps forthwith to remove it. He busies himself with ways and means, devises practical plans and methods, and will not let the world rest until he has done something in a remedial way. The indolent man spares himself the trouble. He will not budge. He sits with his arms folded, and is

always ready with his unvarying observation, "It can't be helped," as much as to say—"If it is, why it ought to be, and we need not bestir our selves to alter it." Wash your face you dirty little school-boy; you are vile repulsive and vicious, by reason of your neglect of cleanliness. "It can't be helped." Clear away your refuse, sweep your streets, cleanse your drains and gutters, purify your atmosphere you indolent corporations, for the cholera is coming. "It can't be helped!" Educate your children, train them up in virtuous habits, teach them to be industrious, obedient, frugal and also thoughtful, you thoughtless communities, for they are now growing up vicious ignorant and careless, a source of future peril to the nation. "It can't be helped." But it can be helped. Every evil can be abated, every nuisance got rid of, every abomination swept away;

though this will never be done by the "Can't-be-helped" people. Man is not helpless, but can both help himself and help others. He can act individually and unitedly against wrong and evil. He has the power to abuse and eventually to uproot them. But alas! the greatest obstacle of all in the way of such a beneficial action, is the feeling and disposition out of which arises the miserable, and idle ejaculation of "It can't be helped."

The real object of a drawing-room is to charm at the first look, to amuse at the second. The apartment must certainly not be a flower-bed, but a garden, with little clumps of chairs and seats, just as there are clumps of trees and shrubs. Apparent disorder is the highest art. Study well the disorder of your drawing-room. Shun that too sym-

metrical arrangement of seats which obliges all the women to sit together. In such a case men are shy of moving the chairs so neatly ranged near the wall; they stand in doorways and discuss. Discussion is easier standing; but in order to chat, you must be comfortably seated. The fate of conversation depends on three things: the quality of the talkers, the harmony of minds, and, especially and above all, the material arrangement of the furniture. In symmetrically arranged drawing-rooms the first hour or so of a soiree is an unspeakable bore. As long as all the seats are in perfect order, conversation is cold and apt to languish. It is only towards the end of the evening, when the furniture has yielded to the necessities

How Quails are Caught in Italy.

The Naples correspondent of the London Times writes: "The Neapolitans have their shooting season as well as the English, and it is now at its height. If they cannot boast of grouse, they do of quails, and these are coming in by thousands. If you cast your eye round the bay you will see that along every mountain top is stretched a net, or series of nets, attached to poles of a great height. They have long been in course of preparation—perhaps since the 12th of August, for who knows when the foreign visitors will come in? They are as capricious as so many human travelers, and are regulated by unseen atmospheric influences.

A clear sky and a gentle southeasterly wind seem to be the best conditions for their journey, just such as we had recently; and as soon as it is dark the watchers and their friends assemble at the parata on which each net is erected, waiting with an anxious expectation. It is a festive occasion, so much so that at times the jollity is greater than caution demands. The wind is found to be somewhat too high, so down come the nets. But there is a lull; there is a rush in the air and up go the nets again, and one hears a "puff, puff" as the poor birds are intercepted. Every now and then there is a haul down to secure the prisoners, and then haul up. This goes on till the morning, when the enemy appears in double force. A crowd of peasants have assembled who shout till they are hoarse in order to drive the birds into their nets, so that from the dawn of day there is no repose for any

one within a mile of the parata. Beside these there is an army of sportsmen armed with guns, many of which no prudent man would touch. But let them keep at a certain distance from the nets, as the law commands, or they will be denounced or receive some personal injury. Attached to every net is a cage full of blind quails, decoys for the visitors. They have had their eyes pierced by a red-hot wire, and their melancholy plaints, mistaken for singing, woo many a bird to its doom. I know a priest who has one hundred and fifty of these mutilated birds and is consequently one of the most successful sportsmen of the locality. What a priest does cannot be wrong, and his example is pretty generally followed by the people under his charge."



and interests of society, that the real chattiness and fun begin. Then comes the hour of departure. This is what ought to be done; watch all the seats that seem to be talking among themselves, and see how they are grouped.

Natural History.

Believing it will be amusing and instructive to our young readers, and to some of riper years, we purpose to give you some sketches with illustrations upon the above subject. If any of our young friends send a better description of this picture than we have prepared for next issue, we will insert it, giving the writer credit. The picture explains itself.

Only a Boy.

I am only a boy, with a heart light and free;
I am brimming with mischief and frolic and glee,
I dance with delight, and whistle and sing;
And you think such a boy never cares for a thing.

But boys have their troubles, tho' jolly they seem;
Their thoughts can go further than most people
deem;
Their hearts are as open to sorrow as joy,
And each has his feelings, though only a boy.

Now, oft when I've worked hard at piling up wood,
Have done all my errands and tried to be good—
I think I might then have a rest or a play;
But how shall I manage? Can any one say?

If I start for a stroll, it is, "Keep off the street!"
If I go to the house, it is, "Mercy! what feet!"
If I take me a seat, 'tis, "Here! give me that
chair!"

If I lounge by a window, 'tis, "Don't loiter there!"

If I ask a few questions, 'tis, "Don't bother me!"
Or else, "Such a torment I never did see!"
I am scolded or cuffed if I make the least noise,
Till I think in this wide world there's no place for
boys.

At school they are shocked if I want a good play,
At home or in church I am so in the way;
And its hard, for I don't see that boys are to blame,
And most any boy, too, will say just the same.

Of course a boy can't know as much as a man;
But we try to do right just as hard as we can.
Have patience, dear people, though oft we annoy,
For the best man on earth once was only a boy.

Antiquity of Gloves.

As Xenophon, in his "Cyropaedia," mentions that on one occasion Cyrus went without his gloves, there are good grounds for believing that the ancient Persians were not ignorant of their use, and it is known that both Greeks and Romans sometimes wore them. The period when gloves were first used in England, however, is likely to be of more interest to our readers; and this could not have been much before the time of Ethelred II., when five pairs made a considerable part of the duty paid by some German merchants to that king for the protection of their trade. In the reign of Richard and John gloves were worn by the higher classes, sometimes short and sometimes to the elbow, jewelled on the backs and embroidered at the tops. Our ancestors closely connected gloves with chivalry, both in love and war; and the custom of throwing down the glove was equivalent to a challenge; the person defied signifying his acceptance of it by taking up opponent's glove and throwing down his own. Biting the gloves meant, on the border, a pledge of mortal revenge; and a story is told of a gentleman of Teviotdale who, after a hard drinking bout, observing in the morning that he had bitten his glove, inquired with whom he had quarrelled, and finding he had had words with one of his companions, insisted on satisfaction, saying that although he remembered nothing of the dispute, he would never have bitten his glove unless he had received unpardonable insult. He fell in the duel, which was fought near Selkirk. The following lines from "Marmion" show that the sending of a glove by a lady to her knight was a token of love, and a command to do her bidding:

For the fair Queen of France
Sent him a torquoise ring and glove,
And charged him, as her knight and love,
For her to break a lance.

In these practical days of ours chivalry has quite died out, and gloves are now for the most part merely regarded as a covering for the hands. One important use made of them in modern society is in the form of bets between the two sexes on such occasions as the Oxford and Cambridge Boat Race, Royal Ascot, and other races. There is yet one old custom connected with gloves which has lived down to our time, but is seldom called into practice. I allude to "gloves in law." At an assize, when no prisoners are to be tried, the sheriff presents the judge with a pair of white gloves, and this custom is also observed in Scotland.

The manager of a theatre finding, on one occasion, but three persons in attendance, thus addressed the audience: "Ladies and gentlemen, as there is nobody in attendance I'll dismiss you all. The performance of this night will not be performed; but it will be repeated to-morrow evening."

Our Own.

If I had known in the morning
How wearily all the day
The words unkind
Would trouble my mind,
I said when I went away.
I had been more careful, darling,
Nor given you needless pain;
But we vex "our own"
With look and tone
We may never take back again.

For though in the quiet evening
I may give you the kiss of peace,
Yet it might be
That never for me
The pain at the heart should cease!
How many go forth in the morning
That never come home at night?
And hearts have been broken,
By harsh words spoken,
That sorrow can ne'er set right.

We have careful thought for the stranger
And smiles for the sometime guest,
But oft for "our own"
The bitter tone,
Though we love "our own" the best.
Ah! lips, with curse impatient!
Ah! brow, with that look of scorn!
'Twere a cruel fate,
Were the night too late
To undo the work of the morn.

Holy Wells in Ireland.

For several miles our road was bounded by bog on one side and rocks on the other. There were no evidences of human habitation, yet here and there we passed a peasant—some crippled, all plunged in profound misery. I inquired the errand of these poor creatures, and was informed that it was St. Somebody's Day, and they were going to her well near by to be healed. "It's there beyond" said a trembling old woman, pointing her skinny finger to a clump of trees and a stone wall a few hundred yards distant. I alighted and walked down the valley to a small inclosure which surrounded a well and a withered tree. Near by was a rude stone altar, upon which were numerous offerings of toys, bits of broken ware, and shreds of many colored rags tied to sticks, and kneeling beside it was a group of cripples; some moved slowly round the circle on their knees, muttering prayers, some were telling their beads, others partook of the water, while a priest stood by the tree reading. This, then, was one of the holy wells so numerous in Ireland, to which visits are still frequently made, in some cases as works of penance, either voluntary or enjoined, but generally for obtaining health, under the auspices of the saint, by drinking the waters of the well. Of course the day of the patron saint of each well is the one chosen for these visits; and some years ago, and even now in many parts of the country, crowds were attracted, not only for religious motives, but for the love of gossip and meeting with distant friends. These wells have kept their reputation for centuries, the fame of some being coeval with Christianity, while that of others probably preceded it, the early Christian teachers having merely changed the object of worship, leaving the alters of idolatry undisturbed.—*Harper's Magazine.*

How to Grow.

Once I read of a lively, fun-loving little fellow, who was found standing in the garden, with his feet buried in the soil and his hand clasping a tall sunflower. His face was aglow with delight; and when his mother said, "Willie, dear, what pleases you so much?" he replied, "Mamma, I'm going to be a man; I've planted myself to grow."

Willie seemed to think he was as a plant and could draw food for growth from the soil. In this he was mistaken, as you know. Boys grow into men by means of food taken into the mouth; but to be real, noble men, they must eat something more than mere bread and meat. They must eat facts.

"Oh! how can we do that?" exclaims some wee Willie.

"By thinking of them, my dear boy. Reading is the spoon with which you get the facts into your head. By thinking you get to know what the facts really signify. Now, just as the bread, meat, vegetables and fruit you put into your mouth make the body grow, so the facts you think about make your mind grow. Be a reader and a thinker."

Words for the Young.

Young friends, education is to you what polish and refinement is to the rude diamond. In its rude state, the diamond resembles a stone, or piece of charcoal; but when cut and manufactured, it comes out a bright and beautiful diamond, and is sold at a great price. So it is with you. Education calls forth the hidden treasures and latent brilliancies of your minds, which previously lie dormant and inactive, or, in other words, asleep. It cultivates and develops your understandings, and fits and prepares you for the duties and responsibilities of coming years, which, we trust will be years of usefulness—useful to yourselves to your associates, and society, at large. If so you must never misspend your time or opportunities. Endeavour to learn something new and useful every day. Add to your little store of knowledge day by day, and you will, in a few years, have a great bank of your own, on which you may draw in every emergency.

Remember that every little step is to that great elevation called science; and the more you study, the more you learn, and the wiser you grow, the greater will be your desire for knowledge.

Let me say to you, as one who is deeply interested in your common welfare, one who earnestly desires to see you become honoured, useful, and happy—improve your minds by acquiring a good store of useful knowledge. Bear in mind, my young friends, that you are fast surmounting the busy stage of life; that the time is approaching when circumstances will call you forth into a busy and bustling world. You will then have to contend with the dangers and perils that such a world affords; you will have many obstacles and many pernicious influences to strive against; and unless your minds are well stored with useful knowledge, you will be unable to overcome those difficulties successfully.

A promise should be given with caution and kept with care. A promise should be made with the heart, and remembered by the head. A promise is the offspring of the intention, and should be nurtured by recollection. A promise and its performance should, like a true balance, always present a mutual adjustment. A promise delayed is justice deferred. A promise neglected is an untruth told. A promise attended to is a debt settled.

A young man from the country went to have a tooth plugged. The dentist advised him to have the tooth out, and assured him that he would feel no pain if he inhaled laughing gas. "But what is the effect of the gas?" asked the youth. "It simply makes you totally insensible," answered the dentist; you don't know anything that takes place." The rustic assented, but just previous to the gas being administered he put his hand into his pocket and pulled out his money. "Oh, do not trouble about that now," said the dentist, thinking he was going to be paid his fee. "Not at all," remarked the patient, "I was simply going to see how much I had before the gas took effect."

A minister who, after a hard day's labor, was enjoying a "tea dinner," kept incessantly praising the ham, and saying that "Mrs. Dunlop at home was as fond o' ham as he was," when the mistress kindly offered to send her the present of one. "It's unco kin' o' ye, unco kin', but I'll na put ye to the trouble o' sending it, I'll just tak' it hame on the horse afore me." When, on leaving, he mounted, and the ham was put into a sack, some difficulty was experienced in getting it to lie properly. His inventive genius soon cut the Gordian knot. "I think, mistress, a cheese in the ither end wad make a grand balance." The hint was immediately acted on, and, like John Gilpin, he moved away with his "balance true."

When a young gentleman kisses a young lady, she very naturally says, "Oh, Dick; the idea!" And he, also naturally, replies, "No, love; not the eye, dear; but the cheek, dear."

"Who was the first man?" asked a Sunday-school teacher of her prodigy. "Adam." "And who was the first woman?" He hesitated but a moment, and then shouted, "Madam!"

"What comes after T?" asked a teacher of a little abecedarian. "You do—to see cousin 'Liza," was the embarrassing reply.

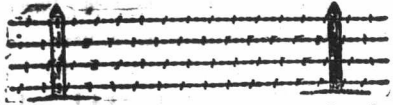
A little five-year-old, after shopping with her mother at leading dry-goods shops, remarked: "Seems to me there are a good many boys named Cash."

American cheese have advanced from 3s. to 5s., and stocks on hand are mostly heated July make. The quotations for the second week in September were, for American extra fine, 32s. to 34s.; fine, 28s. to 30s.; good, 24s. to 26s.; and common at 20s. per cwt. English Cheddar sells at from 50s. to 70s.; Cheshire medium, 30s. to 40s.; fine, 56s. to 60s.; and Scotch fine, 40s. to 50s. per cwt.

The transactions in butter are large, and American butter participates in the demand, since the quality of that coming to hand is good. Prices are as follows: Clonmel, 108s.; Dorsets, 126s.; Friesland, 100s. to 112s.; Danish, 120s. to 125s.; Normandy, 90s. to 114s.; American and New Canadian, fine, 60s. to 90s., with American creamery at 84s. to 100s. per cwt.

[N. B.—Since the above was written most genial showers have fallen, the weather has been very warm, and the growth of crops never excelled at this season of the year; it must add much to the fall productions of cheese, butter and beef.]

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East half lot 29 in the 2nd Con—and west quarter lot 28 in the 3rd—West Nissouri—150 acres; price \$6,000.

Part lots 8 and 9 in the 1st Con of Westminster—230 acres; price \$85 an acre.

Parts lots 50 and 51 in Gore A, Westminster—144 acres; price \$85 an acre.

West half of lot 21 in the 2nd Con Adelaide, north of the Egremont Road—100 acres; price \$6,500.

Lot 29 in the 12th Con of Biddulph—100 acres; price \$8,000; a capital farm close to Granton, known as the Jermyn Property.

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Part lot 14 in the 4th Con of London—64 acres; price \$10,000.

South half lots 23 and 24 in the 11th Con of London—190 acres; price \$16,500.

Part lots 9 and 10 in the 6th Con of East Williams—154 acres; price \$9,000.

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Lot 23 in the 1st Con of Malahide—190 acres on lake shore; price \$8,500.

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Part lot 92 North Talbot Road, Howard—62 acres; price \$7,000.

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OFFICE - King-Street, opposite the Market. RESIDENCE—Horton-Street, near Richmond. C. E. RUDD & J. H. TENNENT, London. do-t

60 Perfumed chromo etc cards, name on all, 10c; 42 mixed cards and fine pocket knife, 25c; Autograph Album, nicely bound in cloth, with fine designs of birds etc, 20c; Game Authors, 15c; 35 fun and escorting cards, 10c; 20 gold and silver chromo etc cards, 15c; Imitation Russian Leather card case 10c; pack age cards 10c; CLINTON BROS, Clintonville Ct.

PLANTS CROWN for transplanting, and Fruit for the market. 100 Acres planted with Berries 100 Varieties of Selected Fruits. See New Catalogue for what sorts to plant. Sent free. JOHN S. COLLINS, Moorestown, N. Jersey. dj-6

\$55.66 Agents Profit per Week. Will prove it or forfeit \$500. \$4. Outfit free. E. G. RIDEOUT & CO., 218 Fulton St. N. Y.

THE GRIGG HOUSE.

(RICHMOND STREET, LONDON.)

This new, spacious, and handsomely furnished Hotel is just opened.

It is situated near the G W R Depot, in the centre of business, with moderate charges, good accommodation, and strict attention to the comfort of guests.

SAMUEL GRIGG, - PROP.
LATE OF AMERICAN HOUSE.

THE ONLY LICENSED AND CHARTERED MUTUAL FIRE OFFICE IN THE DOMINION.

Established in 1859, and having on 1st January, 1878, a capital of \$250,863.58, with 40,167 Policies in force, and continually increasing!

The "London Mutual" Fire Insurance Co.

[Late "Agricultural Mutual."]

HEAD OFFICE, LONDON, ONT. CROWELL WILSON, President; DANIEL BLACK, Vice-President; W. R. VINING, Treasurer; C. G. COBY, Inspector.

This old, ever-popular company—the most successful "Fire Mutual" in existence—the pioneer of cheap insurance on farm property and private residences in Canada—still continues to do the largest, safest and best business in the country. Having no stockholders to receive dividends, its funds are accumulated for the benefit of its members, and it affords protection at the lowest possible rates.

Over two-thirds of a million of dollars have been expended in the payment of losses in the Province of Ontario.

FARMERS! Patronize your own good, long-established Insurance Company, and be not led away by the empty promises of the promoters of new-fangled ventures, *emateurs* in the business. For insurance apply to any of the agents, or address D. C. MACDONALD, Manager. London, 23rd Sept., 1878.

\$1 SWISS ORGAN. \$1

Known as the TYROLEAN MUSICAL BOX. We will send to every reader of this paper the Tyrolean Musical Box, 8 tunes, as follows: "Home Sweet Home," "The Last Rose of Summer," "Tommy, Make Room for Your Uncle," "Baby Mine," "Hold the Fort," "The Blue Danube Waltz," "Dreaming near the Moonlight," "All Among the Hay, Boys." We will send the Tyrolean Music Box by mail on receipt of \$1; 3 boxes for \$2. SCOTT & SON, 31 Park Row, N.Y. dj-1.

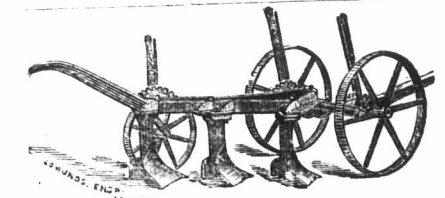
ANOTHER MANITOBA TRAIN,

October 20th, 1879.

I will run another Fast Through Freight and Passenger Train from

PARIS TO WINNIPEG on the above date. Parties wishing to send Freight either in small lots or by car loads, had better address me at once.

R. PATTERSON,
Town Agent G W R. PARIS, ONT. dj-1



Gang Plows - Long Plows, all kinds - Prairie Plows - Breaker and Cross Plows,

To suit Manitoba Country. GEO. JACKSON, Plow Works, Fullerton St., London, Ont. Send for Circulars.

50 chromo, floral, glass, &c. Cards in case, name on all, 10c. Outfit 10c. DAVIDS & Co, Northford, Ct.

YOUR name on one Card Case and 50 all chromo, Glass and Floral Cards, 10c. Agent's outfit, 10c. GLOBE CARD Co, Northford Conn dj-6

WATSON

OF
Ayr, Ontario,

MANUFACTURES THE
largest assortment of
IMPLEMENTS
IN AMERICA,

and NO FARMER CAN AFFORD TO
buy any Implement without first
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Catalogue and Price List.
Send for it. — Send for it.

THE WONDERFUL
Grain Binder

and a
FULL ASSORTMENT OF HIS MACHINES

WILL BE EXHIBITED AT
Toronto, Ottawa, London,
Guelph, Hamilton, and
Walkerton.

Examine them, and if in Want
of any, Buy them.

Show Machines sold at regular prices.
Send for Illustrated Catalogue and
Price List to

JOHN WATSON,
Ayr, Ontario, Can.

**Brampton and St. Thomas Agri-
cultural Works.**

We invite the farmers of the Dominion
to examine our **Dustless Grain-
Saving Separator**, steam or horse
power; **Reapers, Mowers, "Tiger
Rake,"** etc., etc., at

All the leading Exhibitions
Send for Illustrated Circulars to

HAGGERT BROS. Brampton, or to
HAGGERT & COCHRANE, St. Thomas.

J. M. COUSINS'
WIND ENGINE
For Pumping Water.



The cheapest power in
use for Farms, Dairies,
Gardens, Lawns, Rail-
ways, Brickyards, and all
places where large quan-
tities of water is used.

Also all kinds of
Pumps—wood and iron,
force and lift.

Wells dug, Cisterns
built and Curbs made.

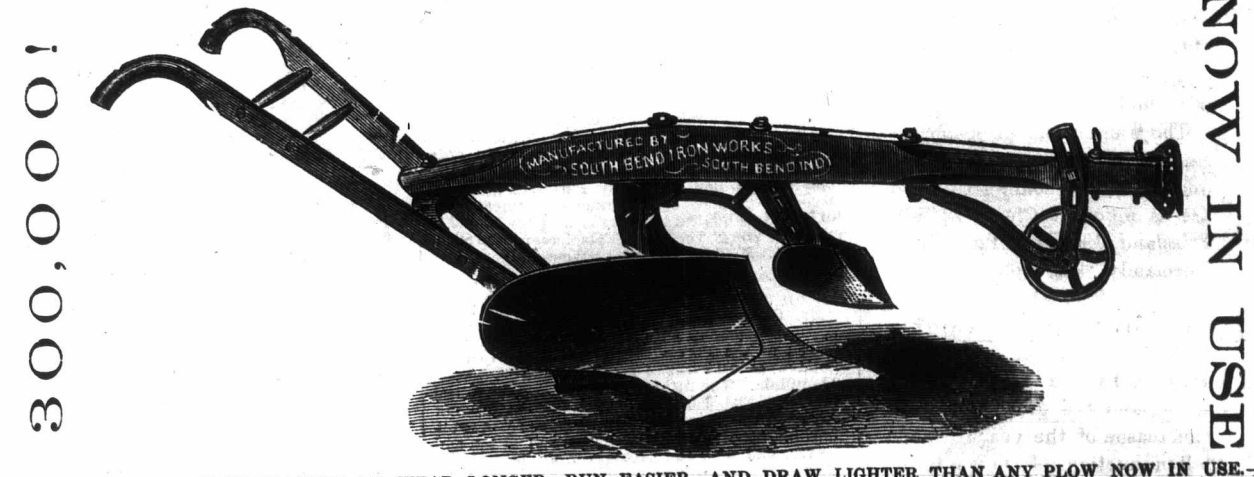
Water Pipes and Fan-
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made and repaired.

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JOHN CAMPBELL,
KING STREET, LONDON, ONT.
Manufacturer of
CARRIAGES, BUGGIES, CUTTERS,
SLEIGHS, &c.,
modelled from the Newest Designs; which, for
Elegance, Durability and Workmanship, can-
not be surpassed in the Dominion. dc-12

THE OLIVER "NO. 40" CHILLED PLOW.

Manufactured by the OLIVER PLOW CO., South Bend, Ind., U. S.



THESE PLOWS ARE WARRANTED TO WEAR LONGER, RUN EASIER, AND DRAW LIGHTER THAN ANY PLOW NOW IN USE.—
While several Manufacturers are making imitations of the Oliver Chilled Plow, and making a hard iron—claiming it to be equal to the Oliver
Chilled Board—they all singularly fail in making a genuine Chilled Board, which can easily be detected after a few hours work in the field. None
genuine but those having the Checkered Chilled Marks on the Board and Name on the Beam. For Sale Wholesale and Retail.
FOR CIRCULAR AND TERMS ADDRESS—JOHN OLIVER, St. Mary's, Ont., SOLE AGENT FOR ONTARIO.
CAUTION!—Beware of imitation Plows. Get the genuine "OLIVER," and look for the Name on the Beam. Buy our repairs from
those who sell our Plows. The best is the cheapest; we make the best, and sell at the lowest possible price, quality considered. Do not waste money
on worthless goods, in trying to save a trifle on first cost. Quality depreciates faster than price. Respectfully,
OLIVER CHILLED PLOW WORKS, SOUTH BEND, IND., U. S.



Rubber Paint.

BEST IN THE WORLD!
Stands the climate of the Provinces
better than any Paint made.
MIXED READY FOR USE.
All Shades and Colors.

This Paint is not an experiment. It has been thoroughly tried, tested, and
proved to be **the cheapest and best, the finest finished and most
enduring Paint ever produced.** It is impervious to water! Atmospheric
changes do not affect it! Send for book of testimonials, prices, or any information
desired.

RUBBER PAINT CO. - CLEVELAND, OHIO.

For sale at the Canadian Agricultural Emporium, 360 Richmond Street, London, Ont.

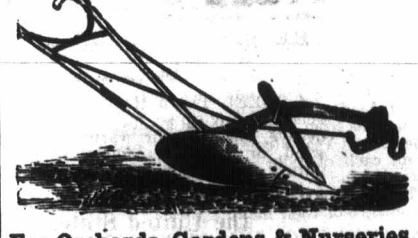


GURNEY AND WARE'S Standard Scales

HAVE TAKEN PRIZES OVER ALL COMPETITORS.
1st Prize Toronto Exhibition 1878.
1st Prizes taken also at former Provincial Exhibitions in Ontario, in Province
of Quebec, and in London, England. Every scale warranted to stand inspection.
All makes of Scales promptly repaired.

Send for Illustrated Catalogue and Price List to Hamilton, Ont.

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For Orchards, Gardens & Nurseries.
Made by
COPP BROS. & CO.,
manufacturers of
Ploughs, Garden Seed Drills, Garden Cultivators
(Iron or wood), Garden Rollers, Horse Hoes,
Straw Cutters, Corn Planters, etc.
Send for Price List.
Office and Works—Corner York and
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OFFICE:
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A LARGE STOCK OF
FRUIT TREES
of all kinds.
Roses, Ornamentals
and Small Fruits
A SPECIALTY.

AGENTS WANTED to canvass for
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men.
Nurserymen and dealers supplied with
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Felt Carpetings 20c to 38c per yard. Felt
Ceiling for rooms in place of plaster. Felt
Roofing and Siding. For circular and sam-
ple address C. J. FAY, Camden, New Jersey.

ALWAYS AHEAD!

First Prize and Diploma
Industrial Exhib'n, Toronto, 1879,
OVER ALL OTHER YEASTS:



Twin Brothers' Yeast,
-AND-
THE GOLD YEAST.



Patronized by His Excellency the Marquis of Lorne, Her Royal Highness the Princess Louise and Suite.
The bread tasted by the illustrious party was baked by the well-known Confectioner, Mr. Edward Lawson, of King street, Toronto, on instructions from the Judges to test the merits of the several Yeasts competing, by making bread from each of them. The Judges unanimously awarded the **FIRST PRIZE** and **DIPLOMA** to the "TWIN BROTHERS" for the unapproachable excellence of their manufacture.

WATERLOO YEAST COMPANY,
39 FRONT ST., TORONTO.
T. L. BUCKLEE, Manager.
Toronto Bridge Company.

IRON BRIDGES CONSTRUCTED ON THE MOST APPROVED PLANS. Office & Works, King St. West. For Circulars, plans and particulars address **TORONTO BRIDGE COY. TORONTO, ONT.**

Economy in Steam Power.

Extracts from Numerous Testimonials.

London, August 19, 1879.
Geo. White, Esq.—Dear Sir: With regard to the 60 h. p. Engine we purchased from you this summer we are happy to be able to report that it is giving entire satisfaction, and has proved to be all that was promised. Although we are running more machinery than the old engine was capable of carrying, we find we are not using more than one-half the fuel previously consumed; and as regards simplicity of construction and perfection of working qualities it leaves nothing to be desired. Yours very sincerely, John McCary, President McClary Manufacturing Company.

A GOOD DAY'S THRESHING.

Nissouri, Ont., Aug. 12, 1879.
Mr. Geo. White—Dear Sir: Messrs. Neely & Foster began work with their new engine, purchased at the Forest City Machine Works, in London, at the barns of Mr. James Dawson, near Thorndale. The little engine was started in the morning and continued to work until noon. After dinner another continuous run was made until nightfall with an abundance of steam and power, and with the greatest uniformity of motion on the Separator, which is one of L. D. Sawyer's. And we, the undersigned threshers and farmers present, do believe it is the most complete engine for threshing purposes, and is also very compact and easy of draft, and with ordinary care is perfectly safe with regard to fire.

Licenses granted from the principal insurance companies with the above engine.

Joseph Dawson, Wm. Henderson, Adam Bailey
H. Fitzsimmons, George Logan, Robt. Logan,
John Wheaton, Jas. Cunningham, Jos. Wheaton
George F. Bryan.

Address the **Forest City Machine Works,** London, Ont.

**NEW PATENT
Spring-tooth Harrow**

The greatest labor-saving implement produced. It will do double the work of a cultivator, with less draft. It is especially adapted for making a seed-bed on fall-plowing in the spring of the year. Patterson & Bro., patentees for the Dominion. See one! Try one! Buy one!

Also manufacturers of Reapers, Mowers, Plows, Gang Plows, Horse Rakes, Scufflers, etc., etc., of the latest and best improvements.

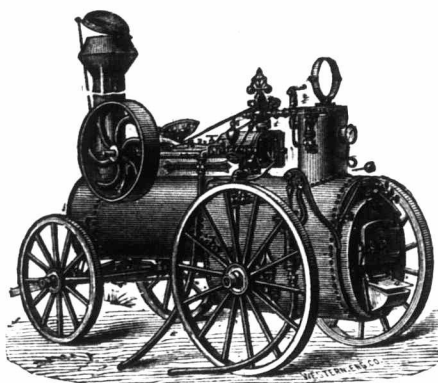
Send for Circular. PATTERSON & BRO., Patterson, Ont.

See cut of harrow and description on page 219.

CHASE BROS. & BOWMAN,
NURSERYMEN,
TORONTO, ONTARIO.

Correspondence and Orders Solicited.
First-class Fruit and Ornamental Stock of all Varieties Furnished.

Satisfaction Guaranteed! Salesman wanted!



Leonard Farm Engine.

Leonard Farm Engine

Best, Largest, Strongest, and Safest
IN THE MARKET.

Send for Circular.
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LONDON, ONTARIO. d.c.t

PIANOFORTES.

CHICKERING, SQUARES, - UPRIGHTS,
STEINWAY, - GRANDS. -
DUNHAM,
HAINES,
A complete assortment of the above makers, as well as a large variety of
SECOND-HAND PIANOS
will be offered by us on the most liberal terms.
PIANOS FOR HIRE.

BRANCHES:

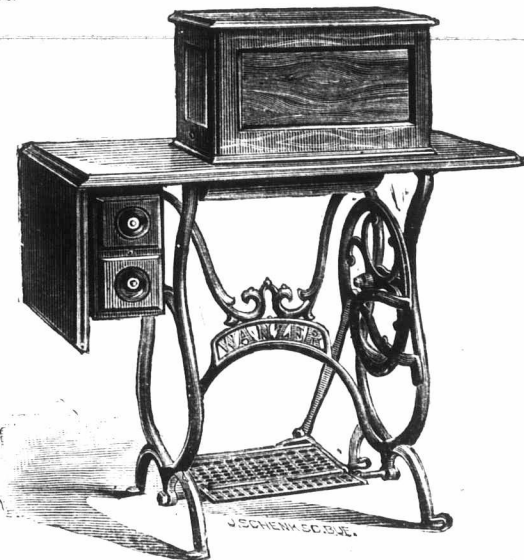
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QUEBEC, ST. JOHN, ST. CATHARINES.

A. & S. NORDHEIMER,
15 KING STREET EAST.

THE WANZER MACHINES

Received the following unprecedented distinctions at the Vienna Exhibition 1873:—
TWO MEDALS OF MERIT, **ONE GRAND SILVER MEDAL,**
A distinction not obtained by any other sewing machine at the Exhibition. For the best Family and Manufacturing Sewing Machines.

His Majesty the Emperor of Austria conferred upon
MR. R. M. WANZER "THE IRON CROSS,"
and knighted him with the Order of "Francis Joseph the First" for his valuable services in the Sewing Machine business, which were the highest honors conferred at the Exhibition.
Mr. Wanzer is the only Sewing Machine manufacturer in Great Britain and its colonies who received these honors.



THE GOLD MEDAL.

CENTENNIAL EXHIBITION
HIGHEST AWARD.

The Judges and Jury of the Centennial Exhibition have awarded to
The Wanzer Machines
THE INTERNATIONAL MEDAL AND DIPLOMA

For the BEST LOCK-STITCH SEWING MACHINE for Family and General Use.
The only Gold Medal given for sewing machines was awarded to the Wanzer. These were the highest honors the Judges could bestow, and higher than given any other Sewing Machine.
THE CENTENNIAL EXHIBITION, 1876.

DOMINION OFFICE, 66 KING ST. WEST, TORONTO.
LONDON OFFICE, ODDFELLOWS' BUILDING, 222 DUNDAS ST.

CAUTION!



This Cut is a Fac-simile of the Trade Mark to be found on the Side of Arm near the Base, and the words "THE SINGER MANUFACTURING COMPANY" Printed on Top of the Arm on every

S I N G E R
SEWING MACHINE.

Compare it and be not deceived, as all others are Counterfeit. Do not purchase until you have seen, examined and tried our Machine.
All are Warranted by the Company for Five Years.