

the FARMER'S ADVOCATE

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AND HOME MAGAZINE

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THE FARMER'S ADVOCATE —AND— HOME MAGAZINE.

WILLIAM WELD, Editor and Proprietor.

The FARMER'S ADVOCATE is published on or about the 1st of each month, is handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for dairymen, for farmers, gardeners or stockmen, of any publication in Canada. Impartial and independent of all cliques or parties, the FARMER'S ADVOCATE aims to present to the farmers of Canada with an unbiased judgment the agricultural news of the day. Voluntary correspondence containing useful and seasonable information solicited, and if need, will be liberally paid for. No notice taken of anonymous correspondence. We do not return rejected communications.

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The death of Mr. Henry B. Ellwanger, son of the senior partner of the firm of Ellwanger & Barry, of the Mt. Hope Nurseries, Rochester, N. Y., is a matter of general regret. He was well known as an accomplished floriculturist. Not long ago he published an excellent book on the rose.

H. G. Charlesworth, of Rosedale and Oakland farms, Port Hope, Ontario, writes: "I cannot refrain from writing you expressive of the high opinion I have formed of your paper as an advertising medium. I have advertised largely for the past five years in both Canadian and American papers, but with no such results. I have not only been flooded with letters from all parts of the country, but they have been of such a character that I have experienced no delay in making sales."

I have taken your most valuable paper for several years, and would not be without it for ten times the price. W. M. LEGGE, St. Mary's, Ont.

Our Monthly Prize Essay.

Our prize of \$5.00 for the best essay on the *Home Making of Bread*, has been awarded to Mrs. E. H. Moffatt.

A prize of \$5.00 will be given for the best essay on the comparative advantages and profits of *Summer and Winter Dairying*. The essay to be handed in before the 15th September next.

A prize of \$5.00 will be given for the best essay upon *The Advantages of Maintaining Township Exhibitions*. The manuscript to be in before the 15th October next.

Our Exhibition Issue.

All subscribers who are desirous of having a copy of our special issue for any friend or friends are requested to forward such names with P. O. address at once. The Exhibition Issue is free on application to our subscribers, being included in their annual subscription, and will be very interesting to them as well as to their friends. Send names at once.

Capt. Le Brocq, of St. Hilliers, Jersey, has kindly sent us the rules of the Jersey Farmer's Association, which we will notice more fully in an early issue.

Would not do without the ADVOCATE now. Can almost tell by the farms who take the ADVOCATE. ALLEN MCPHEE, North River, P. E. I.

By the Way.

Keep your fences and gates in order. Save the best field and garden seeds. Yes, "plow deep while sluggards sleep." Don't "make haste slowly" in killing thistles, etc.

Agricultural fairs should be social reunions as well as useful exhibitions.

Boys and girls should exhibit at the fair, but not themselves only.

Everybody should send to the farmer's paper any facts, experiments and suggestions that other people may profit by.

Buy a small farm. It costs less, is more easily bought and sold, has less fencing, less taxes, and will be better cultivated.

Caution should be exercised in laying drains in an orchard. If they are placed too near the trees the roots will be very likely to fill them up.

The Rev. Henry Ward Beecher is said to have placed 500 eggs in an incubator. Of the twenty chickens hatched from them five survived, at latest advices.

In Southern Illinois strawberry growers are abandoning the practice of mulching the plants; they believe the mulch serves as an insect breeder.

Of the growing apples in Great Britain The London Gardeners' Chronicle reports them "everywhere most abundant; a truly grand crop."

Jersey bulls, says the London Agricultural Gazette, will be respected by anyone who has ever encountered one. "They (if bull-fighting ever becomes popular in England) will have to supply the arena."

Do you know what each crop costs?

Mr. P. C. Reynolds considers the McCormick raspberry—better known as Mammoth Cluster—unequaled among blackcaps for flavor; the fruit is less seedy than other varieties, but not quite so productive as some.

Mr. Henry A. Sprague, a close observer in the boundless field of natural history, writes to The Mirror and Farmer against red squirrels, which he accuses of not only preying on fruit, but, what is worse, fighting with birds for the contents of their nests.

Mr. Stephen Powers tells The Ohio Farmer that he has threshed wheat directly from the shock five years in succession, and intends to continue the practice. He thus saves handling, and keeps barn-room for hay. But the grain will not bear close confinement; he has, however, stored it three feet deep in the bin without injury, and thinks barrels better.

Mr. A. W. Cheever has this year the poorest peas he ever raised, though soil and season were more than usually favorable. The only trouble was—inferior seed, the fag-end of the crop of 1882.

The name of the perfect insecticide is not Pyrethrum. That promising herb meets two of the requirements—it is harmless to plants and non-poisonous to the higher animals; but Professor A. J. Cook, a practical and painstaking experimenter, "finds that many beetles and most bugs are entirely indifferent to its use."

Mr. Charles Downing says that dusting with sulphur as soon as the leaves are large as a half-dollar, and renewal after each rain, will generally prevent mildew on grapevines, but not always.

Sowing pansy seeds in the open ground this month is a forethoughtful provision for a bed of beautiful flowers almost as soon as the snow disappears next spring, provided the soil is made sufficiently rich.

Accommodation for Visitors at Fairs.

The directors of the Southern Exposition recently held at Louisville, Kentucky, appointed a "public comfort committee," who published a directory of all the hotels, boarding and lodging houses. The circular is complete in every detail; in a tabular form it shows the location, number of rooms, number of beds, how many ladies or gentlemen can be accommodated, the rates per day or week, with a column of remarks of the specialties of each house, such as bath-rooms, how furnished, number of extra beds, etc., etc. For years we have urged on the directors of the Provincial and other large fairs the desirability of attending to the comfort of their numerous visitors, and we commend to their favorable notice the above mentioned system. If considered undesirable to issue a separate sheet, a page or two of the premium lists could be utilised for the purpose, and would prove a great boon to visitors from a distance, and would induce a greater attendance.

I am very well pleased with your paper; indeed, I think it is the best published in Canada for the interests of the farmer.

EDWARD KING, Watford, Ont.

Editorial.

Judging at Fairs.

It is about time some amendment was made in judging at our fairs. Every year there is untold dissatisfaction on the part of exhibitors. We know there is an inherent principle in human nature for every person to think his own exhibit the best. This being granted, yet really there is a great deal of bad judging done. Very often judges are selected without any special fitness for the class upon which they are chosen to pass judgment. They should be adepts and have an individual acquaintance and a specific knowledge of the same. A man may have a good idea about stock in general, yet be unable to take in the points of any particular class. Some man in the country is heard of, for instance, who has the name of being a good farmer and keeping several kinds of well-bred stock; but every man has a specialty—something that he takes a pride in, and which he is trying to develop. Judging should be done by every man being in his own order, and also by system. To our knowledge we know men—good men, too, in their line—who have been appointed judges by the Agricultural and Arts Association of this Province on certain kinds of stock, who do not really know the distinctive breeds when they see them. What can result from this but dissatisfaction?

When you get down to the smaller shows—say from the Provincial down to a county fair—the evil is aggravated in a direct ratio, and through bad judging the majority of the small shows break up in a squabble with disappointed exhibitors and the managing committee. Besides the wrong selection of judges, these county societies act penuriously in remunerating proper judges. The secretary sends a card to the effect that a certain individual has been appointed a judge on a certain class. Just as likely as not he has to pay his railway fare, and lose a day for nothing. How can competent judges be expected without remuneration?

Bad judging at fairs has a bad moral effect, and tends more than anything else to break them down and retard the progress of agricultural competition. A man who exhibits an animal or anything else, and is conscious that he has been unfairly dealt with and wronged, is loath to show again, and hence his support, financially and morally, is lost to the society. To remedy the evil of slipshod and hap-hazard judging at our agricultural exhibitions we certainly recommend: First, competent judges in each class, and who have a special knowledge of the different subjects upon which they are called upon to deliberate. Let them be liberally paid; and let the judging be done systematically, and by a scale of points, having the prominent parts of an animal, say, represented by some numeral, and the total, if a model animal were produced, sum up to 100. The American poultry breeders for a long time have adopted this system, with highly satisfactory results. Twelve points, for instance, are given to represent the anatomy of the bird, such as head, comb, earlobes, wattles, neck, breast, wings, tail, legs, and then come in symmetry, size and condition. A numeral standard is given to each of these points, and any man with an eye at all, or has the bumps of size and form at all developed in his cranium, can hardly go astray in setting down the points credited to each part. This way of judging is a guide—a yard stick, as it were—for the judges, and is as much more accurate as weighing an animal on the scales is over guessing his weight. Besides, if judges are aware that they are requested to judge by points, they will post themselves up

in the knowledge necessarily required to act as a competent judge. A poultry man would study the nomenclature of poultry, and a horse and cattle man would grind himself on the anatomy of these; for no judge who valued his reputation would like to show his ignorance before his fellow judges. Thus no one but a well posted man and an adept would attempt to act in the capacity of a judge. It is a notable fact that there were judges in the horse rings of some of our largest exhibitions last year, who were asking for information about what class they were judging. Then, if they did not know the class, what did they know about the points, or the anatomy? In judging by points there is system; by the old way it is merely the rule of thumb; you may be right, you may be wrong. Then there is a definiteness and satisfaction to exhibitors. Score cards are given to the judges, and in doing their work they mark the points of the animal and score; make duplicates, give one to the exhibitor, and retain its counterpart. Then exhibitors can see why they are beaten, and where their animals lack. It would educate breeders and help to put an end to this continual squabbling when every man don't get first prize. At the Provincial at Guelph this year the point system has been adopted, and we hope it will be carried out in all our prominent agricultural exhibitions.

Dog Shows and Agricultural Fairs.

There is an eternal fitness of things, so the saying goes, but how a dog show can be fitted into an exhibition purely agricultural is difficult of solution. Do the managers of our shows know that the very class of dogs which they are countenancing, and for which space is given on our fair grounds, and for which valuable prizes are offered for competition, are the very breeds which are the most destructive to the farmer's flocks? Indeed, the cry is every day increasing, that farmers will not keep sheep on account of the ravages of dogs. The cost of \$1,230 to the township of London to one individual for sheep worried by dogs, is a case in point. This amount of damage was done by a lot of sporting dogs owned in the neighborhood of the slaughter, for which prizes are offered at the coming Western Fair. What special attraction, may it be asked, does a bench of yelping and howling dogs add to an agricultural exhibition? Everything in its own order. Dog shows may be well enough for "fancy." Let them enjoy their pet dogs to their hearts' content, but keep them separate from agriculture. We consider these dog shows on fair grounds a mere intrusion, and that they have the tendency to lower the tone of our shows. The parties who run these "Bench" or dog shows, and get them up, are mere adventurers and speculators, who go around the country getting up these dog shows to make money, and to benefit—whom? Not the farmer—(although he has to pay for it), but a few speculating dog-fanciers. However desirable a dog show may be in its proper place, one thing is certain, a menagerie of howling hounds and yelping curs should never be associated on the same ground with sheep and cattle. A sheep, for instance, is startled by the baying of a hound even half a mile away, and the racket made by two or three hundred dogs has a tendency to disturb the animals and make them restless, especially at night and in a strange place. The din and noise at a dog show destroys the whole harmony of an exhibition, and is not in keeping with what agricultural shows were intended for. These are supposed to be exhibitions of skill and industry, and to be in a fit state to take in the various exhibits, the mind wants to be quiet and contemplative, and not to be disturbed by the howling of dogs and the bedlamite confusion of a horse ring.

We think it an insult to the intelligence of the thinking part of the farming community to introduce the frivolities often met with at our shows. The managers must have a low estimate of the intelligence of the average farmer, and they must set him down as a half-witted country lout, portrayed so often by old writers, such as "Farmer Hodge and the Vicar," and such poems as the "Farmer's Blunder," and Tennyson's "Northern Farmer." What a set down these are to the intelligence of a farmer, and it appears the city managers of our fairs are so far behind the age as to think that our Canadian farmers have the traditional stupidity of an Old Country lout of half a century ago. There never was a greater mistake. Ontario farmers as a class are further advanced than people in cities, and if dog shows and Merry Andrews are the measure of city tastes, it can be assured that our intelligent farmers aim higher than this, and want their exhibitions to be for the encouragement of the agricultural and manufacturing industries of the country, and not for the patronage of dog menageries and circus clowns.

Foot and Mouth Disease.

For the last few days there has been quite a flutter in cattle circles about the breaking out of a virulent form of the Foot and Mouth Disease in England. The first rumor was that it had broken out and had been communicated by Canadian cattle, the result of which would be to debar any of our stock from landing in Great Britain. It appears that some Canadian cattle that arrived at Liverpool perfectly sound, came in contact with a shipment of stock from the infected districts in Ireland, and thus contracted the disease. The Canadian cattle were shipped on to Bristol, and in the course of a few days the disease developed and made rapid progress. The Canadian cattle, along with those from any other country, caught the contagion alike, but the origin was from Ireland, and not Canada.

We have always advocated rigid regulations with regard to this virulent disease, and we again urge upon our authorities to be on the alert and adopt speedy measures to prevent it from coming to our shores. It is certain it exists in different parts of Great Britain and the United States. We are free from it in Canada at the present time, and there is nothing to fear from the ravages of this dread disease if proper precautions be taken to keep a strict watch upon the introduction of foreign cattle from infected districts. If the Foot and Mouth Disease gets a hold in this country, it will do an incalculable injury to the export cattle trade of Canada. However, we opine that the so-called outbreak of this disease has been exaggerated, and rumors got up by designing parties to injure Canadian stock and put them on a par with the Americans'; this accomplished, these interested parties at once have a monopoly of the cattle trade in Great Britain. We hope the Privy Council of England will give this subject a thorough investigation, and not allow one of her most treasured and loyal colonies to be debarred from supplying her millions with our surplus cattle. We have no Foot and Mouth Disease in Canada, and we do a large import trade in stock of all kinds from the mother country; and if our stock are to be debarred from entrance into Great Britain, retaliatory measures should be used in admitting cattle from there. Excluding Canadian cattle from England and doing the same thing in Canada, would act disastrously to both countries, and it may soon become necessary to exclude the importation of cattle altogether from Great Britain. There are just as good strains for breeding purposes to be had in Canada and the United States as in the Old Country. And it is

to be hoped, whilst stringent measures should be carried out to stamp out the disease, yet a reciprocal trade in cattle should be encouraged between the mother country and Canada.

Proper precautions should be taken by all railways and steamship lines to thoroughly disinfect persons and property coming from them where the Foot and Mouth Disease has appeared. The germs may remain for an indefinite time in cars and ships, only waiting for a subject to become developed into the disease. Herdsmen who have been in contact with diseased animals cannot be too careful, as the disease may be carried in clothing from one herd to the other, and from one place to the other.

Our Quarantine at Point Levis.

Confirming our remarks upon the quarantine at Point Levis, in July issue, we have received the following letter from the well known importer of Southdowns, Mr. John Jackson, of Abingdon, Ont.:

DEAR SIR,—I landed here on Saturday last with 68 Southdown sheep in fine, healthy condition, per SS. Hanoverian. The regulations are such that sheep have to be quarantined ten days. The first night they were taken from the ship and turned out without the least shelter, and being a cold wet night, I lost a very valuable one from exposure. There being seven or eight hundred American bound cattle quarantined here, Canadian stock is crowded out to perish, and the officials here say they cannot get the Government to supply the necessary accommodations. Now, Mr. Editor, knowing you are the advocate of the Canadian farmer, I think you will agree with me that it is not right to allow Americans to make use of our quarantine free, at the expense and to the great detriment of Canadian importers. Even the out-door room has more burdocks to the acre than I ever saw on the most mismanaged farm in Ontario.

Point Levis, Aug. 7, 1883.

Our leading importers all complain of this overcrowding, etc. The quarantine now contains the following, owned by Canadian importers: John Isaac, Bowmanston, Ont., 16 Durhams; J. L. Davidson, Balsam, Ont., 9 do.; J. Dryden, M. P. P., Brooklyn, Ont., 4 do.; Thos. Russell, Exeter, 2 do.; A. Johnston, Greenwood, Ont., 3 do.; Geary & Bros., London, 84 Polled Angus; V. E. Fuller, Hamilton, 5 Jerseys; H. Walker, Walkerville, Ont., 22 Jerseys; 11 Shropshire sheep and 5 Berkshire pigs; C. C. Bridges, Shanty Bay, Ont., 9 Herefords; Senator Cochrane, Hillhurst, Compton, P. Q., 107 Galloways; John Jackson, Abingdon, Ont., 68 Southdowns; James Glennie, Guelph, 57 Southdowns and 5 Berkshires; and P. Arkell, Teeswater, Ont., 50 Southdowns and 7 Berkshires. And by American importers as follows: Craig & McCulloch, Chicago, 56 Polled Angus; Jas. Lefel, New York, 5 Herefords; B. B. Lord, Sinclairville, N. Y., 105 Holsteins; Phelps & Sealy, Pontiac, Mich., 61 do.; Cudgel & Simpson, Independence, Miss., 33 Polled Angus; J. J. Hill, St. Paul, Minn., 27 Polled Angus; George Findlay, Lake Forest, Ill., 20 do.; A. Geddes, Chicago, 8 Durhams; J. Stewart, Blackberry, Ill., 19 Ayrshires; and G. W. Cook, Odebloft, Iowa, 306 Herefords; or a total, taking both American and Canadian importations together, of over eleven hundred head, quarantining at one time, of which over 700 head are for American stock farms. It is expected that next year the importations will be doubled.

Systematic Farming.

The farm that was awarded the first prize at York, England, by the Royal Agricultural Society, is an illustration of what systematic, intelligent brain farming can do. From the garret to the cellar, from the cow byres to the field, it was *system*. There was cleanliness and order in the cow byres where the milking cows were kept, and the calves' houses were comfortable and airy. Then the arrangements for feeding the stock were complete. Every thing is done by steam—a 7-horse power engine. There is a granary, pulp house, &c., all

being most compactly arranged. A grain grinder fit to make meal stands close by, while on the upper barn floor is a large straw-cutter. The straw is forked up, passed through the cutting box, and then delivered below to mix up with the pulped roots. What a digestible tit-bit the stock have, and what money must be made in this feeding process over giving stock whole turnips and tough hay and straw, as in this country! No wonder Englishmen have nice tender beef, fed like this. The grain is dressed ready for market and can at pleasure be hoisted into an upper story, either to be housed for feeding or stored in the granary ready for market. There is no back-aching work; machinery and system does it all. A good idea is suggested, and one which should be taken hold of by our Ontario farmers, and that is a large covered shed, 36x60, which is used in the fall for storing grain, thus saving the labor of stacking; in the spring it is used for ewes in lamb, and in summer it answers for an implement shed—"Thus made a treble debt to pay." Passing the thoroughbred stock, which are of a high order, the labor question comes up prominently in connection with the Royal Prize Farm, and this is important. The turnips were hoed and thinned by the piece, and only 5 shillings—\$1.25—an acre paid. You could not get that labor performed here for twice that sum per acre, nor three times that sum. Why? Because land like on the prize farm is in such a thorough state of cultivation, and free from weeds, that a laborer can go over three acres of land quicker with a hoe, than over one acre of poorly cultivated, weedy land. This is economy again; cheap labor follows in the wake of systematic farming, and systematic farming means money-making farming.

There is something suggestive all through about this Royal Prize Farm, and the lessons should be of easy application to Ontario farmers, and to the Ontario Government.

Mr. Hutchinson, who occupies the first prize farm, is merely a yearly tenant; the holding belongs to Sir John Lawson, and only consists of 240 acres of land, yet Mr. Hutchinson is *draining* with Government money at 6½ per cent., and on his own responsibility. How many farms in Ontario, and those held by tenants, have been drained by Government money? And how much of that fund is available? And how have municipalities used it? The depth of the drains on this farm and their construction, is another point which may with good grace be brought up for instruction. The *Advocate* has continually urged more thorough drainage of all lands—high or low. The drains in the Royal Prize Farm are 21 feet apart, and 4 feet deep. The land is a hard clay, and is similar to the majority of soils found in western Ontario, especially the northern part of the peninsula. Indeed, part of the farm which obtained the red ticket for the best in England, was, at one time, in a worse condition than many farms in Ontario at the present time; for it is said part of the farm was in wood and grass, and Mr. Hutchinson set to work, cleared out the trees, trenched the ground, and fenced it in. And there is plenty of land in Canada that can be operated on in this way, and which will make equal returns.

Besides drainage, the secret of Mr. Hutchinson's success in farming comes out when it is stated he spends \$3,000 a year on manures besides that which is made by his stock. Just think of a farmer in this country laying out for manure \$3,000 on a 240-acre farm in a year, besides what is made on the farm. But this is the way to make money; feed the land or it won't feed you. Then keep plenty of stock if you want to make manure, and have good stock. All the stock kept on the farm are first-class, and they

have been prize winners, and hence more than an ordinary return has been made from this source.

The management of the Royal Prize Farm in England only illustrates what system and intelligence can do in agriculture. The great secret of Mr. Hutchinson's success in his model farm is nothing more than systematic knowledge in every department of agriculture. A man to be a successful farmer in Ontario, does not want to be a specialist; he wants to take in the whole scope of a mixed husbandry. Then farming pays, and is sure.

The whole success of the efforts of the winner of the Royal Prize Farm may be summed up in a few words:—*System*; a great knowledge of the principles of stock raising and feeding; farming in general; rigid economy, and the proper application of labor-saving machinery. System and intelligence will always win. There is another point of which cognizance should be taken in regard to systematic farming, and that is the social view. The Agricultural and Arts Association of Ontario have offered a prize for "Why young farmers leave the occupation of their fathers to go to cities?" and this body asks for the remedy. This is given in the person who won the first prize at York; for, besides being characterized as an educated farmer, it is said he "is a jolly good neighbor, who enjoys the pleasures of life, rides straight to hounds, knows a hunter as well as any man in England, and as an all-around judge of stock cannot be beaten."

Intelligence, system, and the prospects of enjoying the pleasures of life, as in the case of Mr. Hutchinson, will keep both young men and old men on the farm. If this gentleman is only a tenant on 240 acres of land, and farms and enjoys life like this, what couldn't a man do in this country who owns his farm? Ponder this over.

Pasturing the Public Roads.

The Massachusetts Ploughman says:—

"In some of the country towns the practice of pasturing the public roads is altogether too prevalent. There are many reasons why this custom is a bad one, both for the owners of the cattle and for the owners of the land that abuts on the road that is pastured. He who turns his cattle into the street is never quite sure where he shall find them when he wants them; if he was, it would be very difficult to get rid of the feeling that he is trespassing upon the rights of others, in fact that he is doing that which is very irritating to his neighbors, by causing them much trouble to keep their gates shut. If by chance a gate is left open the cattle are sure to discover it, and pass into the garden or orchard, doing more injury in an hour than it would cost to hire a pasture for them two months. If the owner of the land thus trespassed upon chance to be a very good natured man, he will send the cattle home with a gentle reminder that he does not like to have them in his garden; but if he be a man that looks closely after his own interest, even if it breaks friendship, he will yard the cattle, and notify the owner that he can have them after paying all damages; this the law requires him to do, although one who pastures the road is rarely willing to do so. The result is, as a rule, the friendship between the two neighbors is broken, that one of them might get for his cattle a few cents worth of feed which belonged to others."

"The law does not compel any one to keep his gates shut, or in fact to have any fence next to the street; but it does require every one to confine his cattle upon his own land; failing in this, he is liable for all injury they may do to others. In some towns farmers are compelled to keep their cattle out of the public roads. A few towns have passed stringent laws to prevent cattle from feeding on the streets, and also to prevent the sides of the roads from being ornamented with old carts, broken wheels, ploughs and other worn out farm implements. As towns have full power to do this, it would be well if all towns would pass laws restraining all persons from obstructing the road, to the injury of the travelling public and those who reside in the town."

We can fully endorse the above. Not only are stock a nuisance on public highways, but often

even dangerous. To our own knowledge in the past few weeks, vehicles have been upset and thrown into ditches by coming into contact with cows. Not only this, but only a few days back we saw a valuable cow killed by a buggy shaft running into her whilst lying on a public road. Then, again, there are innumerable animals killed on railway crossings every year, to the loss of the farmer, besides endangering the lives of passengers. It is known in this vicinity some years back that not only was a valuable cow killed by being run over by a train, but also the lives of 25 passengers were sacrificed. Stock running on the road cannot thrive, from the fact that they are in continual fear, and annoyed by being pelted at by passers by, and being dogged from one end of the road to the other.

On the Wing.

THE RECENT PRESS EXCURSION.

In another part of this journal will be found a description of this excursion, and the leading newspapers will have furnished you with particulars from their standpoints. We leave to these the laudation of scenery, the munificent and generous attention paid to us by our Quebec friends; no pains nor expense had been spared. On the whole it was a grand success, and much good should result therefrom. Dr. Dionne, the Secretary of the Quebec Press Association, and Mr. Lavesseur, were especially indefatigable in their exertions for our comfort and happiness. The grand rocks, "Trinity" and "Eternity," situated on the Saguenay River, are well deserving a visit by tourists, one being 1,900 ft. and the other 2,000 ft. perpendicular, the boat passing close below them. The thrill of echo from the distant hills will long be remembered. During our drives through the country we saw much more and better farming land than we had expected. Although not equal to our Western land, it has many advantages, and from the reports there appears to be sufficient good land down in the north-east country to make another large province. It was partly with this view that a portion of the trip was taken, from Chicoutimi to Grand Brule, the farthest point we reached. Here we found the potatoes far superior in appearance to any we have ever seen in Ontario; so large, fine and healthy were they that we got out of our carriage to examine them and pluck a leaf. Neither the rot nor the potato bug have reached so far east as this.

As we drove through the country haying was in progress. It was quite amusing to us to see the Frenchmen raking the hay with home-made rakes and pitching with home-made hay forks. These consisted of a sapling or small tree, having a suitable crotch, made thus:

The Frenchmen wore moccasins and home-made cloth. At one place the mower and horse rake were at work especially for our edification, but the farmers generally in this locality are seen mowing with the scythe. The crops were not near as heavy as in western Ontario; oats, wheat, peas, buckwheat and hay were the principal crops. Small fruits and rhubarb were seen growing, but not a vestige of apple, not even the crab, or any other tree fruit. The cattle were not such animals as we keep; they are so small; in one locality we saw some that would sell very well for Jerseys, if they had but a pedigree. In another locality the cattle strongly resembled the Holsteins; they were all black and white, with colors distinct. At Frazerville, near Riviere du Loup, the cherry trees were better laden than any we had seen this year. As yet the black knot does

not seem to have attacked the trees in this locality. If it should, we would earnestly advise the immediate cutting down and burning of the trees upon its very first appearance. Near Quebec City we went into a field of corn and cut one stalk, which measured 9 ft. 5½ inches, and had three cobs just coming into tassel. We were as much surprised at this as at any crop we had seen, for we had no idea that they could raise such corn in that Province. We doubt if Ontario would beat it this year, as it has been the worst corn year for Ontario that we have known. They have not had so much wet in Quebec as in Ontario. In the vicinity of Montreal there is an excellent crop of apples this year; they will be worth money, as our Ontario crop will be light.

When in Quebec we went to see the quarantine ground at Point St. Charles. This is the greatest port of entry for cattle on this continent; at the time of our visit there were 1,147 head of cattle, sheep and swine in quarantine. The cattle stables and yards are kept scrupulously clean; this is a good feature. The stock were all, with one exception, in a very healthy and comfortable condition; the one objectionable animal was a black Polled beast, which had met with some accident, and one of its legs appeared out of joint and swollen to about six times its natural size. It appeared to be pretty well covered with warts and ringworms, and was a hard looking sight. It had but recently arrived, and was standing among good, healthy cattle; we would think it should have been put in some isolated place. This Point St. Charles quarantine is considered to be by far the best on the continent. It is all right as long as the stock are healthy that are brought into it; but this single board partition, without any space between, is not as effective as it ought to be. For instance, there was one lot of stock that had arrived the previous day; they were running in one of the enclosures. On the opposite side of the fence one lot had just filled its term of quarantine, and were to leave the following day. There was a board off the fence between these two lots, and nothing to prevent them from smelling or breathing from one to the other. If we have a quarantine it should be made as effective as possible. We would suggest double fences with a space between, and a double fence on the outside, and the animals coming in last to be placed furthest from the animals going out, all animals to be completely isolated for 15 days before discharge. We were informed that up to the present time upwards of 1,500 animals have been quarantined here, and it is expected that next year the number will be fully 3,000 head. Canadian cattle are freer from contagious diseases than those of any other country. For this reason we are able to obtain better privileges and prices for our stock than some other countries. Should we not guard and protect this important position? Should our country be turned into a hospital for the benefit of others, and at our risk?

Among the remarkable animals in the quarantine are a splendid fat three-year-old Hereford steer, brought from England by Mr. George Lea, of Illinois, and an enormous Polled Angus steer estimated to weigh three thousand pounds. We understand these fine animals were imported for the purpose of exhibition at the forthcoming Fat Stock Show to be held in Chicago. Truly this is a new feature in the American beef trade, importing fat stock from England.

There is also an immense Holstein cow said to weigh between 2,200 and 2,400 pounds. She has an enormous bag, the like of which we never saw. It is stated that this cow has a record of ninety pounds of milk per day when fed upon grass alone. This animal was imported by Mr. B. B. Lord, of Sinclairville, N. Y., and forms quite a show of itself, and would create astonishment if it were exhibited.

PRIZE ESSAY.

Home Making of Bread.

BY MRS. E. H. MOFFATT.

Every house-wife who bakes bread for her family should take pride in having it always good, if possible, as there is no other article of food which we use so constantly, and depend so much upon, as bread. The health and happiness of the household depend, in a great measure, on good bread. The natural consequence of constantly eating improper food will be an unhealthy body, and a discontented state of mind, and if sour, heavy, or half baked bread comes on your table from day to day, what wonder if the members of your family are ailing and ill tempered a great deal of the time? Therefore, bread should be always light, sweet and well baked. It ought to be baked the day before it is eaten, or rather, I should say, it should not often be used while it is warm. To eat warm bread or biscuits continually is both unwholesome and extravagant. Home-made bread will keep nice three or four days, or even longer, if properly cared for; but when the family is large it is best to bake two or three times a week.

In order to have bread as it should be, great care must be exercised in all things pertaining to it; for if we err in one particular only, we shall have but an inferior article.

I need hardly say that to make good bread it is indispensable that we have good flour. Fall and spring wheat mixed makes the best, but all of either will do very well. Then we must have good yeast, a good oven, and plenty of fuel.

The farmer ought always to provide his family with the best flour, and he should not patronize a miller who cannot or will not make good flour out of good wheat. It is also the part of the man of the house to provide a good oven and fuel for baking with. No man ought to expect his wife to make good bread if she be not supplied with these necessary things. If he cannot afford to supply them, he should accept poor bread as a necessary evil; but if he can and does supply them, the house-wife has no excuse for giving her family bad bread to eat. If she does not know how to make good bread she can learn, and either make it or superintend the making of it for her family. There are many ways of making good bread. The plan that I practice is the best that I know of, and if the flour is good, and proper care is taken, the bread cannot fail to be good. If the flour is not first rate, the bread will be better made in this way than in any other:—

Too much yeast must not be used, or the bread will be bitter; neither must there be much salt put in the bread. Then again the dough must not be allowed to stand without kneading down after it is light, or it will sour, and it must not rise too often, or it will be flavorless.

Care must be taken that the fire be not too hot; neither ought it to go down while the bread is in the oven.

The plan which I have always practiced with success is this: Pare five or six good sized potatoes, put on to boil in about two quarts of water, boil till very soft; then pour through the colander, mashing the potatoes through. While it is still scalding hot, stir in a little flour to make a pretty stiff batter, and set aside to cool. When it is about lukewarm stir in the yeast cake (I use hop yeast cakes, and always make my own), previously soaked in a little warm water; cover and set away to rise. If made in the evening in warm weather, it will be very light in the morning. In winter it is best to make it at noon for use the next day. This potato rising will keep good for two or three bakings in cold weather, and freezing will not spoil it.

As soon as possible in the morning I set a sponge with this rising by filling the mixing tray two-thirds full of flour, leaving a space in the middle, put in a little salt, then the potato rising, adding warm water enough to make the desired quantity of bread. Stir into a batter, cover with flour, and leave it to rise. When it cracks the flour and foams up it is ready to mix. Mix it up quite stiff and smooth, allow it to rise again, and then mould it up into loaves and put into the pans. If one has time to knead it a good while, it will be finer and whiter, but if not, knead for a few minutes till it is in good shape; put into the pans, cover with a

cloth, and let it rise again. When it is quite light put into a good hot oven, and keep the fire just right. It should bake in an hour if the loaves are not too large. I think small loaves are better than large ones. If the oven bakes better at one side than the other, turn the bread when about half done. Do not leave it to dry up in the oven after it is done, but turn out of the pans, wrap in a clean cloth, and leave it to get cold before putting it away in a covered box or boiler.

Brown bread can be made in the same way by using half graham and half white flour, and adding a tablespoonful of sugar. Brown bread is more wholesome than white, but as it dries so quickly, I prefer to make soft biscuits of it. Besides, I always like to see nice white bread on the table, and do not worry if we don't get time to bake pies and cake very often; and we regard good bread and butter, with fruit, as more digestible than pastry. Do not regard the subject of bread-making as unworthy of your attention, nor be discouraged by one or two failures, but take the motto of the FARMER'S ADVOCATE, and "Persevere and Succeed."

Special Contributors.

The Shropshire Sheep.

BY WM. GOODWIN PREECE.

The Shropshire sheep descended from a breed which has been known to exist for about two centuries in the county of Shropshire and part of the adjoining one of Stafford, but no attempt at its improvement seems to have been made until within the last half century, since when it has received greater attention from the more extensive farmers on the cultivated districts of the county. The present developed perfection and uniformity of character is the result of improvement by selection from the best of its own species, and not from the introduction of any other breed. Some breeders have tried an infusion of the Southdown blood, but the result was a total failure, the produce being animals of a nondescript character, and which had to be entirely removed from the flocks practised upon. For several years the breed was called or known by the name of "Grey-faced sheep," and it was not until the year 1850 that it was distinguished by the title of "Shropshire;" the name being given to them by the writer of these remarks, who evinced great interest in the breed, and assisted the owners generally in obtaining uniformity and developing the inherent perfections of the sheep, also in providing a class for their exhibition at the meetings of the Royal Agricultural Society of England, where, at Gloucester, in the year 1853, they made their successful debut. The Shropshire has exterminated all other breeds of sheep in the counties of Salop and Stafford, and many other parts of the adjoining districts, and has been adopted by tenant farmers generally in the midland counties of England. Several flocks have also been established in Ireland, where it thrives remarkably well as a breed, and is also used for crossing purposes. Foremost among its patrons in that country are J. L. Naper, Esq., of Longheren, who has been most successful at the meetings of the Royal, both in England and Ireland; Mr. Lambart, of Braw Park, and the Marquis of Headfort. It has also been most successfully introduced into Scotland, where some fine flocks are now being bred by the Earl of Strathmore, Mr. Crawford, Lord Polworth, and other enterprising agriculturists, and from its highly profitable and rent-paying qualities, it is certain to rival, if not entirely supercede, most other breeds, where the production of first class mutton and wool at an early age is a desideratum. It is a recognised fact that the Shropshire is hardy of constitution, and prolific; the fall of lambs averaging about 160 per cent. The ewes are good nurses, and a well kept flock will average a clip of wool, of the best quality adapted to general purposes, of about 8 lbs. per fleece, and wethers at fourteen months old will produce a carcass of mutton weighing 80 pounds and upwards, free of offal. It is also acknowledged that the Shropshire is a light consumer, with great powers of assimilation, arrives at early maturity, renders a heavy amount of flesh in proportion to rough offal, and that its mutton cannot be excelled in value by that of any other sheep. The greatest determination

and spirit is exercised by the leading flock-masters to maintain the high character of their sheep, having hired rams for a season at sums varying from 40 to 250 gs., and purchased them in some instances for as much as 500 gs. Ewes from noted flocks have also been purchased at sums reaching to 39 guineas each, and when it is remembered that these high prices are given by men who breed for profit, and not for fancy only, and whose selections are backed by sound judgment, it is an indisputable criterion that no means are being spared to make the Shropshire the most profitable, popular and perfect of all breed of sheep.

A Chatty Letter from the States.

[FROM OUR CHICAGO CORRESPONDENT.]

Of late there have been a good many people in the sheep business who seem dissatisfied with their flocks, and the business in general, owing to the unsatisfactory state of the market for wool, as well as for mutton. Not a few wool growers of the States have expressed themselves thus, and come to the conclusion that raising hogs, cattle, horses, and other like pursuits, will in the future be more profitable than sheep raising.

While it is a fact worthy of note that the persons who have gotten out of conceit with sheep growing, are mainly those who have never conducted their operations on sound business principles, and who have trusted rather to luck than to a judicious application of common sense—while all this is true, the fact remains that in the Western States, in particular, there have been a great many serious drawbacks with which the mutton and wool growers have had to contend. Among the chief difficulties encountered, especially by the sheep-raisers of the plains, where sheep are allowed to run in a semi-wild state, similar to the way cattle are grown on ranches, is the difficulty of keeping the flocks free from disease. A ranchman may be careful as he will to dip and care for his own sheep, but is comparatively helpless when a neighbor, whose sheep are diseased with scab, allows them to invade the range of the healthy animals; and when nomadic flocks spread disease as they go. In some sections precautions have been taken by the authorities, making it illegal to drive infected sheep through the country, and a great many public dipping vats have been established, and county and state inspectors appointed, which of course is a considerable safe-guard against this very common enemy of the western sheep raiser; but in thinly settled sections, and in more thickly populated parts too, it is one thing to make laws, and quite another to enforce them. If it be true, as a Colorado ranchman asserts, that the disease commonly called scab, is taken by Jack rabbits, and carried from one range to another, then the matter is made doubly bad, for even a wholesale slaughter of the nuisances would not remedy the evil in a great many years.

Western wool growers are stoutly complaining of the reduction of the tariff on foreign wools, and are asking for a restoration of the old high protective tariff. They will probably not succeed in securing even a modification of the act relative to that subject, which was passed by the last Congress, but the matter will doubtless continue to be a theme for much discussion in farmers' clubs and papers. As political matters now stand, there can be no special legislation for the relief of any particular branch of industry. In all probability, however, farmers will suffer a great deal more from their own negligence in improving and properly taking care of their flocks, than from any reduction of tariff on foreign wool. Thus far, indeed, the lowering of the rates of duty has had no material effect upon the wool market of the country, but, on the other hand, the difference in the market since the law went into effect has been in

seller's favor. Manufacturers, however, have endeavored to use the new rule as a cat's paw for reducing prices.

Probably the true reason why manufacturers have manifested so much indifference in the wool market, is more on account of the vast amount of matter other than wool which has been manufactured into clothing to take the place of all wool goods.

Says an observing wool grower: "The wool grower has less to fear from the importation of wool with the present duty, than from the increasing amount of goods manufactured and sold as woolen fabrics, that are made from rags and other articles of like character, that cost the manufacturer less per lb. than the duty on raw wool, in manufacturing goods. Statistics show that about 62,000,000 lbs. of the articles referred to have been used annually in making shoddy goods, which amount is ten times the quantity of raw wool imported in 1882."

It truly seems that everything is adulterated or counterfeited in some way these days, and the farmer is hedged about on nearly every side by the misdirected efforts of inventive genius. So well are many of the farm products imitated by bogus articles, that none but experts, and not always they, can detect the fraud. This being the case, there seems to be but one alternative for the farmer, and that is to produce articles of such high and uniform merit that people can readily distinguish the genuine from the bogus. If there is anything under the sun that the farmers of this or any other country, but particularly this—if there is anything against which they should be protected, it is manufacturers of spurious goods of all kinds.

To some, dire catastrophe seems to threaten the farming and other interests, in the way of free trade spectres, but how insignificant is the government protection against legitimate and fair competition from foreign countries, as compared with the protection that is needed by farmers against makers of spurious goods! There should at least be laws providing that all goods be sold on their merits for what they are; then if consumers prefer to buy "bull butter" because of its cheapness, as compared with the genuine article, then it would be all right; only let everything be properly named.

A custom too prevalent, and one that seems to be rather on the increase in this speculative age, is the disposition to abandon certain kinds of crops and stock as well, when there happens to be a period of dullness in the market for them, as a result of temporary over-supplies. Farmers in one locality have been known to devote nearly their whole attention to a certain kind of product the year after exceptionally high prices have been realized for it. It is a mistake to change one's plans every time the wind blows from a new quarter, yet, of course, it is proper and profitable for one to be open to conviction and not be so strongly conservative as to refuse to make a change from beaten ruts when the times clearly demand it. Extremes should be as much avoided on the farm as anywhere else.

Mr. John McCulloch, of Dumfries, Scotland, was at Chicago recently to receive 56 head of remarkably fine imported Polled cattle, just from the Montreal quarantine. The lot comprised 30 Polled-Angus—7 two-year-old heifers, and the remainder yearling bulls; and 26 Galloways, with 3 heifers and the rest yearling bulls. These fine specimens are destined for duty on the plains. All of the Polled-Angus and a few of the Galloways go to Oelrich Bros., of Cheyenne, Wyo., and the others go to Kansas City.

At a recent Shorthorn sale by Wm. Stevenson & Sons, of Virginia, Ill., a Young Mary cow sold at \$1,000; an Oxford cow at \$840, and a Rose of Sharon bull at \$450.

Volume 25 of the American Shorthorn Herd Book, of which L. P. Muir, of Chicago, is editor, will contain entries of over 4,800 bulls, and 6,000 cows and heifers. The fees for the volume, which is the largest ever issued, will amount to about \$10,000. Entries are said to be already coming in for volumes 26, or that of 1884. This shows great activity and unflagging interest among Shorthorn breeders.

On August 16th, Messrs. Pickrell, Thomas & Smith, of Harristown, Ill., sold at Chicago a draft of good breeding cattle from their well known Shorthorn herd. Owing no doubt to the fact that countrymen were busy with harvesting, the attendance of buyers was small. Thirty-nine cows and heifers brought an average of \$219, and sixteen bulls made an average of \$166.

The Dairy.

A Contrast.

BY L. B. ARNOLD.

While standing one morning by the weigh-can in a cheese factory in which I was to make cheese during the day, to notice the condition of the milk as it came in, the factory manager remarked, as he took two large cans of milk from the load before the door:

"This is the largest mess I get from one man, and it is the best milk that comes to the factory. There are but two large dairies among my 78 patrons. The rest have only a few cows each. The next mess I shall take in is from the other large dairy. The number of cows in both these dairies is 30, but the mess from the dairy to which the next cans belong is always much the smaller, and is about the poorest milk I get; it is often unfit to use, and I should have sent back several cans of it if the situation was not just as it is. The owner lives just about half way between this and another factory, and if I should reject a can of milk it would kick up a dust, and he would take his milk to the other factory. It is a large mess and I cannot afford to lose it, so I take it in and do the best I can with it." This remark led to a particular notice of the milk in the two lots. There was a wide contrast as to condition and quantity. The milk in the first mess weighed 795 lbs., or 26½ lbs. to the cow, there being 30 cows in the dairy. It was the milk of the morning and previous evening, which had been kept separate till it reached the factory, and had been well aired and cooled, and was sweet and clean. The next patron's milk was announced at 405 lbs., or 13½ lbs. to the cow—almost half less than the first. The night's milk had been distributed into all the cans for keeping through the night with only the cooling it got by a little stirring, and the morning's milk turned in to fill the cans. This mixture at the farm, and the scanty stirring, made the milk smell strong, and carried it almost to souring by the time it reached the factory, and the specks floating on its surface raised a query as to the fact of its ever having passed through a strainer. The contrast excited a curiosity that led to interviewing the two dairymen, who may be distinguished as Smith and Jones, in the afternoon at their homes. They had farms of about the same size, and located in the same neighborhood. The exact number of acres does not appear from the notes made at the time, but it was not far from 200 in either farm; but the management was as different as the milk they delivered. Smith was always short of keeping, and turned his cows to grass early in the spring to save fodder. They kept the pasture down all the early part of the summer, and when in August the grass stopped growing from a season of heat and drought, scanty fare reduced their milk to the pittance above noted, no extra feed being furnished. Jones always had plenty of fodder, and was never in a hurry to turn out before grass got start enough to keep ahead of the cows, and had plenty of soiling crops for the drought. This made his August yield a large one. Both milked in the stables used in the winter, but Smith milked at sunrise and sunset, the cows being hurried into the stable in a confused manner by a hired boy and a dog, and the two were also companions in taking the cows to and from the pasture. Dogs were an interesting item on this farm. There were on it, just at this time, "more curs than pigs." It rejoiced in two adult dogs and a numerous litter of smaller growth. At some other times the pigs outnumbered the puppies. Jones had no taste nor use for

dogs and kept none. He was particular, especially in the flush of the season, to make the times between milkings equal, and his cows went into the stable of their own accord, each taking its own place every time. There was always something in the stable to make the place inviting. On this occasion it was green clover and fodder corn in equal parts, and both wilted. After turning out at night the manger was filled for morning, and the evening feed was put in before noon. They were let into the stable in season to get through eating before milking time. There were no living streams or springs on either farm, but both had plenty of water in the yard, so that the cows could drink all they wished when they came up for milking. Jones supplied the defect in his pasture by aid of a wind-mill. Smith did not. Smith recruited his dairy by purchasing such animals as he could pick up. He seldom raised calves because, as he said, "I don't like to bother with them." Jones kept a thorough-bred bull, sometimes a Shorthorn and sometimes an Ayrshire, and raised the heifer calves from his best cows, and selected the best of these to keep his herd supplied. As a consequence he had large, high grade cows that were extraordinary milkers, and as he gave them at all seasons all the good food they could make use of, they kept in good order and always looked sleek and smooth, and hence gave an extraordinary product, and were turned to good account after they had run their career as milkers.

Smith's stable was a good place to milk in when the weather was hot, because its floor was up from the ground, and a good ways from tight, and the sides were also full of cracks made by the seasoning of boards which had evidently been put on green, and as it was empty overhead, with only a loose floor over the cows, there was nothing to prevent a current of air, if any was stirring, and it served to keep away the flies. It must have been an expensive place to winter cows in, for the warmth which would be dispelled by the free admission of cold air in winter, could not do otherwise than result in a needless waste of food or a loss of flesh to keep up animal heat enough to sustain life. Indeed, Smith complained that it cost him more to keep his cows than it did his neighbor. Jones, he said, would winter his cows well on straw and a little grain, but his would fall back on all the hay they could eat. An inspector of their barns made the reason apparent. One was tight and as warm as a kitchen, the other was open and as cold as a saw-mill. From the tenor of his conversation on this point, it was evident that his loss from exposure to cold was divided between the consumption of an enormous quantity of hay and the loss of most of the small stock of flesh his cows had at the beginning of winter.

There was a similar difference running through all their farming operations. The soil on one farm was kept in good heart, and clear of weeds and brush around the fields, and the buildings and fences were in good shape, all betokening thrift. On the other was an air of neglect and waste which indicated that the owner had all he could do to make the ends of the year meet. Smith, however, was not behind in everything, but he had taste of a different kind. He had the nicest carriages, the finest harness, and the fastest horses. Though he starved his cows he gave his horses grain enough to keep them in fine order. He enjoyed a fast drive, and appreciated a showy horse and a fancy dog. While he cared so little about cattle that he hardly knew the difference between a Shorthorn and a Jersey, he was posted to the last minute on all that related to thoroughbred dogs, and knew all about every trotting nag in the country. All this contributed something toward his enjoyment of life, but not much toward a living.

An examination of the milk-book of the cheese factory for the previous year showed the exact results of the different modes of caring for their

dairy farms. Smith's cows were credited with a total of 107,535 lbs. of milk for a season of 214 days. This was 3,584½ lbs. per cow, and a daily average of 16½ lbs. The net proceeds for 100 lbs. of milk that year at their factory was 83 cents. It made his total income \$892.54, equal to \$29.75 per cow. Jones' total milk was 174,945 lbs.; 5,831½ per cow, and 27½ the daily average, which is 10½ pounds per cow above Smith's. His total net was \$1,452.04; \$48.40 per cow, an excess over Smith of \$18.68 a cow, and on the whole dairy a difference of \$559.50, which Smith paid as the price of his neglect, and which caused a difference of opinion between the two which has not yet been settled, and is not likely to be soon. Smith says dairying don't pay. Jones says it does. Both think their opinions are sound because they are both based on experience.

What is Flavor?

BY JOHN GOULD, AURORA, OHIO.

It seems a little strange that some of our text books upon dairy science leave out all reference even to the cause of, or how to retain the delicate flavor of butter. It makes but little difference whether the butter be well or poorly made; it is the flavor that delights the palates of the consumers. Not that badly made butter can have true flavor, but it is a fact that the best looking butter may yet have deficient flavor, or treasure noxious tastes that destroy its value when sold upon its merits. Two packages of butter standing alongside may in general appearance be equally valuable, but by the difference in flavor the one may be quickly sold, while the other at last finds its way to some soap-grease rendering establishment. It is not quite possible for one maker to obtain uniform results in this respect, for a change of food, or even sudden or prolonged changes of weather, either from wet to dry, or from heat to cold, will greatly influence the product not only in quantity, but in quality as well, and by this term we include flavor.

If enquiry is made as to the origin of flavor, the kind of flavor will in part answer the question, for there are different flavors, natural and artificial, but the true, natural, delicate aroma is the oft eluding object of this article, and it may even elude us. The "off" flavor of butter is not to be considered under this head, as that is the element of caseine, acted upon by the milk sugar ferment, and is the result of decay and not a naturally imparted flavor. There is no doubt but that flavor is produced by the combination of the different elements of the butter fats, of which chemists detect some seven or more in varying quantities, and it seems the most plausible that as the proportions vary under the influence of changed treatment, climatic influences, or different foods, the flavor is affected—for this much we do know, that certain kinds of foods impart noxious flavors, and other kinds contribute to its delight.

It is in the variety of flavors that the dairyman suits all customers, and is enabled to sell all his wares, for while the one consumer asks for the delicate aroma of sweet cream butter, another wants a strong, sharp flavor, produced by sour cream; but even these do not determine the source of other flavors.

Primarily, butter fats are of two classes, animal and vegetable, flavored and unflavored, the one derived from vegetation, in some cases actually unchanged, while from their chemical composition others must be the result of changed material furnished by the animal organization. And that color and flavor are not imparted by all of the elements contributed to form butter fats, it is proven that some of these elements are without color, and of flavor are distinct from the true butter flavor. On the other hand, there are elements in butter that no food affects, like caproin, caprin, and the like, neither can they be found by any analysis in flesh or fat-forming foods.

The chemist, by consummate art, has been enabled to counterfeit nearly all of the fruit flavors, and very perfectly, but no man has yet given us a true butter flavor. Why? Simply because the natural flavor of butter is not stated, and the different changes under which butter goes so varies that element that it eludes capture. It used to be asserted that flavor was the result of acidity; then it was announced that it was the result of complete airing or oxydation which produced chemical changes, but as both are different from the flavor of butter made from fresh drawn milk,

and churned at once, it is fair to state that both of these are artificial rather than natural. It is told us also that souring cream destroys certain of the oils, and turns certain of them to acids, and the change in proportions affect the subsequent flavor, but as yet no chemist has told us the exact proportions of oil, myristin, caprin arachin, caproin, etc., etc., in sweet cream, sour cream, aired or "smothered" cream; even the best dairymen are in the dark respecting the affecting of flavor from this cause. This much is known, however, that at the start the flavor is different than when later the acid has changed the milk sugar into lactic acid, and it is then that we first get high flavor for delicate aroma. This first flavor is certainly acquired, for it is the result of changed flavor in the casein rather than in the butter fats, for, at first, casein is practically tasteless, but if present in the butter to any great degree, it soon gives a cheesy taste to the butter, and much of the butter of the past, imperfectly worked, after an exposure to the air, tasted about as much like cheese as butter. Upon this very point many persons assert that they do not have so good success with any system as by souring cream to produce artificial flavor. Granted, from the fact that souring cream makes it uniform in texture, because it "outs" the cream into a common consistency, while it is rarely possible by average existing conditions to have the cream from different milkings of one consistency, and hence results varying flavor. So that is a remedy for a defect that can only be controlled by employing an acid; the taste of the consumers has actually become educated to high artificial flavor.

We are now brought face to face with the enquiry, What is flavor, is it of animal or vegetable origin? It is doubtful if it is actually a product or combination of what are denominated animal fats, which are influenced very little, if any, by food. Then the only alternative is left that it is of vegetable origin. If the food of the cow is of late cut hay, a white, tasteless, flavorless butter results. Feed the same cow on early cut hay, cornmeal, oats, or foods rich in albuminoids and oils, and a fine butter of remarkable texture, flavor and quality results. On cream thus produced, several changes in flavor may be rung by certain manipulations of the cream, and each delight the fancy and taste of the consumer. Give the cow the range of a well drained pasture, rich in its June grasses and clovers, and no art can improve the flavor of the fresh made butter. What subtle element does this grass contain to thus produce a result that skill or chemistry can neither approach nor counterfeit? Who can dispute true flavor is the result of perfect food that has been thoroughly assimilated and appropriated by well bred cows, whose butter qualities have been established by lines of heredity, and that other flavor is artificial, and is demanded by consumers who have, by habit, acquired a preference for higher flavors, just as we acquire the habit of adding sugar to improve the natural flavor of fruit, or pickle our cabbage into kraut?

The Working Dairies at the Royal Show.

Machinery in motion, especially butter making machinery, in an agricultural district, always attracts an interested and eager audience, and at the Royal Show, at York, Eng., thousands flocked to see the working dairies. There were three—a large factory, conducted by the society, and two competing for the prize of £50, offered for the best dairy in actual operation—one by Bradford, of Manchester, and the other by Ahlborn, of Hildesheim, Germany; the prize was awarded to the latter, a brief description of which will doubtless be interesting to our readers.

The factory contained a selection of the best and most popular of the appliances in the English and continental markets, both large and small, arranged in excellent order, considering that everything had to be put in a position to enable the audience to see it at work.

All was done on the very complete scale usual at a Royal English show, which some of our secretaries and stewards might study with advantage.

The building was over 80 feet long, covered and enclosed; entrance prohibited to all not actually engaged in the dairy. At one side there was free view to all spectators, and at the other a stand in tiers to accommodate about two thousand persons. Outside of all was a shed to contain milk cans full and empty, and further off a small shed specially devoted to cheese making, which was unfortunately crowded out of the main building. Motive

power for a maze of shafting and pulleys fixed over head for driving churns, butter workers, and separators, was obtained from a 12-horse power engine.

The first object in the dairy was a milk can cleaner, for quickly and thoroughly cleaning the inside and outside of milk cans. Very useful, no doubt, for a large establishment. Then came the Nielson and Peterson separator on a brick pedestal, to which the milk was hoisted by a suspended weighing machine into a huge tank holding over 100 gallons. From this the milk descended by gravitation to the other points at which it was operated on.

As the skim milk left the separator it passed over a large Lawrence refrigerator, and ran down into vessels which were conveyed away on a tramway, which passed right through the building.

The cream was stored in a ripening can to mature or churn sweet, according as it was desirable to show either system. The churning was done in a large Holstein vertical. The butter, after draining in the trough, was pressed with patters, and then placed in the Danish hardening box, one of the few novelties in the dairy, and a very valuable thing it appears to be. It is also so simple a contrivance that it could be used in any dairy, large or small. A plain wooden box about four or five feet long, and twelve inches deep, standing on legs, is fitted inside with movable laths resting on a ledge about two inches from the bottom. Upon these the soft butter is laid and a shallow tin cover filled with ice acts as a lid to the box. This arrangement not only admits of drainage from the butter, but also allows a free current of air to play round it. Where ice is not to be had the butter is covered over with a cloth and the tin tray filled with water, the evaporation of which makes a cool chamber underneath. After remaining here for about two hours the butter was taken out and finished on a butter worker, and packed for sale.

"I don't know," is too often the remark made by a farmer or a dairyman. "How much milk does this cow give?" "I don't know." "How much butter?" "I don't know." "How much feed do you use?" "I don't know." Suppose the grocer or the butcher is asked, How much sugar or tea in that barrel or box, or in that parcel, or how much does that quarter of beef or that side of pork weigh? and he should say, I don't know; we should contemplate him with amazement, and silently count up how long it would be before the "know-nothing" would be sold out by the sheriff. But farming is so good a business that it will stand all this neglect and ignorance, and the farmer still make a living. The owner of a cow should know to an ounce how much milk she gives at a milking in a day, in a week, each month, and in the year. He should know to an ounce how much butter each cow gives, and how much feed she eats to produce so much. He should also know the most he can get from the least feed, and the most feed, so that he can regulate to a cent the cost of his milk and butter. And a cheap balance and a note-book and pencil, used in this way, will be worth many dollars every year to him.

Milking in the barnyard is an old fashion that should be abandoned. It is inconvenient and unclean. It should go with the wooden pail and the hairy butter, and never be heard of any more; gone and forgotten, too. It is a wonder that any farmer would permit it, and still more a wonder that any farmers' wives or daughters would consent to it. The following complaint of a woman, which appeared in the *American Patron*, is almost beyond belief among decent, intelligent farmers and dairymen, and yet we know it is not an uncommon case:

"Some yards are so small, they are only mud holes through which we wade shoe deep; others are large enough, but the paths to them are hedged with weeds which, loaded with dew or a shower of rain, wet the clothes to the knees. These inconveniences are considered so slight we never mention them, and the men really think we do not know any better.

"A good sized lot, board fence, a large gate and a small one, the lot divided into two parts, one for the milch cows, the other for hogs and cattle, is my idea of a barnyard."

This is, indeed, a too gentle remonstrance; not only should this woman's idea of a barnyard be carried out on every farm, but there should be a clean shed for milking in.—[The Dairy.

Stock.

Fall Care of Stock.

In the fall of the year there is more danger of stock being neglected than most farmers think. The transition from the warm nights to the cool, and from the succulent grasses of the warmer months to the fall herbage, has quite an effect on the condition of stock. In permanent pastures the grass is dried up and gone, and only on second growth clover and grassy stubble fields can any kind of proper food be obtained. Hence between the autumn grass and the commencement of winter or stall feeding, stock are liable to suffer from a too scant diet. When this is the case, stock commence in the face of a hard winter in poor heart, and they consequently never gain up and there is a consequent loss. We are fully of the opinion that the neglect of proper management of stock in the fall is of more importance than any other season of the year. When the pastures are getting bare every farmer should have a rotation of soiling, and when the cold nights come, especially in the case of milch cows, they should be put in a comfortable yard or stable, and not allowed to rest on the cold damp grass. This has a baneful effect, and causes more harm than anything else. Besides putting stock in comfortable quarters, the system requires to be kept up by liberal feeding, and here is where the soiling system would come into effect. If farmers have not got sufficient accommodation in the stables for all their stock, let them have a sheltered yard or shed, and bed it liberally so that the animals may be dry at nights. Thus not only are they being made comfortable, but they are early commencing the work of manure making, which is so essential to all our farms. Put the cows in the stable or yard on cold nights, and give them a good feed of late sown corn, rye, or vetches, at night when you take them in; another feed in the morning. Every farmer can have a few acres of this green fodder; and we guarantee to say that one acre of this will make a greater return in feed for stock than five acres in pasture, and five acres in soiling-feed on one hundred acres would keep all the stock required on that quantity of land for the fall months, better than 25 acres of pasture. Of course there would be a little more work for the men, but it would be amply repaid by the extra manure so much needed, and the consequent increase of milk and beef.

Fattening Cattle.

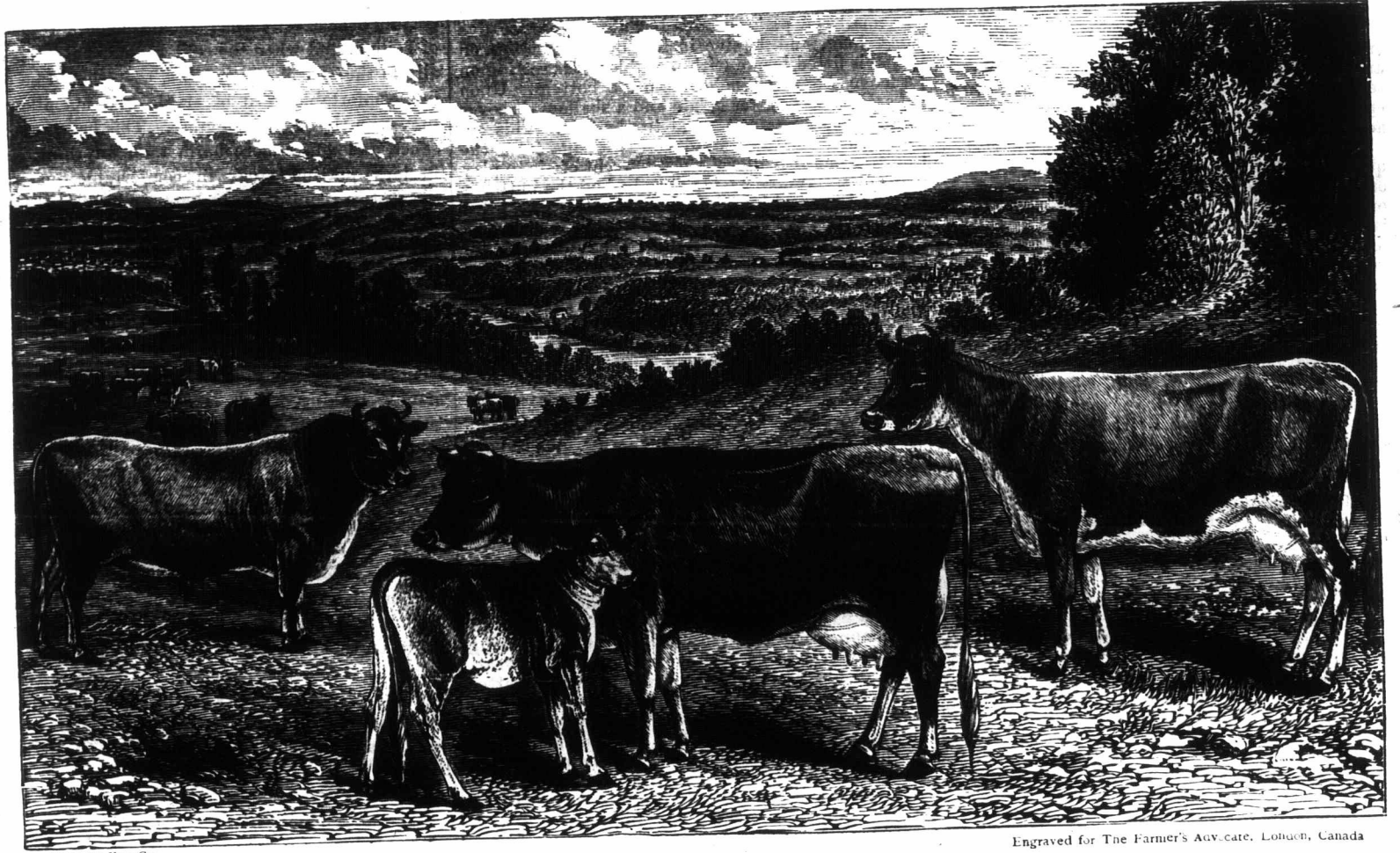
"If it be the fall of the year it will be well to begin with the wastes of the farm. The pumpkins, squashes, small potatoes, turnips and even apples, if given in small quantities, may be utilized in this way to good advantage, not only because they are wastes of little value otherwise, but also because by loosening the bowels and quickening the secretions, they help to bring the cattle into a thrifty condition. If such food does not fatten, it is the best preparation for a course of fattening food. A single week of such food, with good hay, will make the animal look better, though it may not have gained a pound in weight. The giving of meal should begin from the first, and perhaps a good rule would be to use about thirty pounds of hay, fifty pounds of roots, and five quarts or ten pounds of meal for every thousand pounds of live weight. The proportion of the amount of food required to the live weight of the animal is not invariable, as the coarse, unthrifty, paunchy ox will require more to sustain life than such an one as described above would require to keep it fattening rapidly. Here the eye of the feeder needs to be trained again, and it needs to be on the alert to detect any symptoms of being over-fed or of a capacity to take more, and after a while the grain rations can be increased and the ration of hay reduced accordingly, the object in view all the time being to convert as much hay and grain into beef as can profitably be done. To keep the cattle thriving it

is important that they be kept comfortable and quiet. They will do better if kept in their stalls most of the time, if they have good beds, and the stables are well ventilated so as to furnish them pure air and at the right temperature—neither too warm in summer nor too cold in winter, though they will do better in a place comfortably cold. The stables should never be cold enough to allow the manure to freeze on the floor behind them, or water freeze in front of them. They should have pure water twice a day, though while eating the roots they will require but little, and it will be better to feed the roots before offering the water, in order to induce them to get along with as little water as possible. Some feeders give no water while fattening on roots and pumpkins, but this seems cruel, and it is doubtful if the animals thrive as well as if allowed water. It is not well to give salt while fattening, unless with a view of creating thirst, which they will quench by eating more roots, or if it may sometimes be added to the meal if they appear to have got a little 'off their feed' by having been fed too liberally. But when they have been overfed the best remedy is a total withdrawing of the grain ration for one or two meals, and perhaps

"Hillhurst."

Probably no farm in the Dominion is drawing greater attention than Hillhurst and its branches. Hillhurst is situated four miles from Compton Station, on the Grand Trunk R.R., being 114 miles from Montreal. The farm contains 1,000 acres, nearly the whole of which is in pasture, about a third being yet in woods. The land is rolling and well watered, and best adapted to pasture. In addition to this, Mr. Cochrane rents 600 acres, most of which will probably be absorbed in the estate as soon as titles can be obtained. Mr. Cochrane only cultivates 175 acres, 25 of which are in root crop. He purchases about half the hay he requires and nearly all the grain. Mr. Cochrane astonished the English stockmen, as his aim has been to procure the best. He purchased some of the best stock to be found in England, paying higher prices than any other person; for instance,

of beauty, thrift and contentment. It was a grand sight, such as anyone having an eye to the beautiful must have enjoyed. For our part the grand sight of walking through among these beautiful animals, particularly impressed us, especially the fine Polled Aberdeens, the beautiful majestic-looking Herefords, and the lovely fawn-like appearance of the Jersey calves, while language cannot express the grand sight of the beautiful rolling landscape. To aid you to enjoy it our artist gives you a view from the building of the scenery in front of the house. To the left in the distance you see the village of Coaticook. The railroad station is opposite. This station is much nearer to Hillhurst than Compton, but the road is not quite as good. In the valley you see the spire of the church. Mr. Cochrane's natal home stands near the bridge in the park-like ground. A wonderful contrast this is to the flat, level prairie where one may travel for weeks without seeing hardly anything but the sky above and the level land below! Yet despite the beauties of the East, Mr. C. and his sons roamed over the vast prairies of our North-west even to the foot of the Rocky Mountains, and have selected the land for their ranches. One ranch consists of



Toronto Eng Co

Engraved for The Farmer's Advocate, London, Canada

VIEW FROM "HILLHURST," THE RESIDENCE OF THE HON. M. H. COCHRANE, NEAR COMPTON, P. Q.

a little more exercise in the open air. The manner of feeding is of equal importance. Adopt regular hours of giving food and do not vary from them, excepting that in the fall and winter the morning meal may be given at a later hour and the evening meal earlier as the days grow shorter, while as the days grow longer the hours for morning and evening feeding may be made farther from the noonday meal. Avoid as much as possible disturbing fattening animals after they have lain down at night. The practice of 'feeding round' the last thing before going to bed is a bad one, for if the cattle have had a reasonable allowance at the usual supper hour, they do not need to be called up to eat again any more than the farmer himself needs if after he has retired for the night. Going to the barn to see that all is right there is well enough if the cattle are used to such visits, and do not associate them with the idea of being called up to eat or being driven up for any other purpose."—[American Agriculturist.

Sheep will degenerate from poverty more in one generation than they could be improved in two or three.

he was the first that paid 1,000 guineas for a Short-horn heifer in England. By purchasing the best he brought English lords and American millionaires to purchase from his stock when he had any for sale. His stock now consists of 56 Shorthorns, 78 Herefords, 130 Polled Aberdeen and Angus cattle, 21 Jerseys, 4 Ayrshires, 8 West Highland, and crosses; about 100 sheep; a lot of Berkshires and Prince Albert hogs and their crosses; Clydesdale stallion and three mares.

A magnificent red bull, Lord Aberdeen, stands at the head of his Shorthorn herd; and the celebrated Polled Aberdeen bull, Paris 3rd, that took 1st at the Highland Show in 1881, and whose sire was in the herd that carried off the 1st at the Paris Exhibition. One two-year-old Erica heifer was pointed out which was purchased at the Earl of Airlie's sale last October, for which Mr. Cochrane paid 380 guineas. Other celebrated strains are to be seen. Mr. James Cochrane drove us over the farms, and pointed out to us the different strains of animals on them. Space prevents a full description of each, but on the whole we never saw such a large variety of really beautiful, healthy, thriving cattle on any farm we have ever visited. They appeared pictures

200,000 acres, leased from the government for a term of years. They have now on one ranch 15,000 head of cattle, which are rapidly increasing. The other ranch they intend to devote to raising horses, and expect to have 1,000 stock animals on the ranch this autumn. The ranches are under a company bearing the name of the Cochrane Ranch; Mr. M. H. Cochrane is the President of the company. This we believe to be the largest ranch in Canada. It is of importance to us to know what is occurring in our country, as it is of great moment to us that our great North-west should be utilized as soon as possible. We shall be pleased to chronicle the prosperity of this great ranch, and of all the minor ones that are being established.

Near the foreground of the engraving will be seen the splendid Bull "Actor," 10404 A. J. C. C. H. B., bred by T. H. LeBoutellier, of St. Johns, New Jersey, and imported in February, 1883. The females in the picture are of one family, "Frolic," 21662 A. J. C. C. H. B., the dam, standing. Frolic has since made 16 lbs. 13 oz. of unsalted butter in seven days without special feeding. "Fairy Lilian" 21664 A. J. C. C. H. B., is near her calf.

The Farm.

A Convenient House.

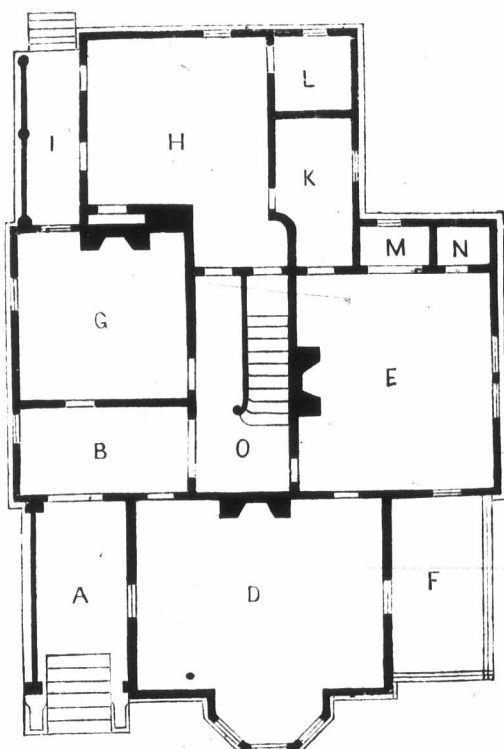
This pretty and convenient house was designed by Mr. George E. Harney, and will make a most comfortable and elegant home for any family. Whilst perhaps the expense is beyond the means of the majority of our farmers now, yet we can gather good ideas from such plans, and "the good times are coming." The house should stand at least 30 or 40 feet from the street, and facing the south, so that the bay window in the parlor may get the afternoon sun, and the dining room may get the full benefit of the sun's earliest rays in the morning. The house is intended to be built of wood, and plainly and simply finished, with no leaning toward the "aesthetic" or "Queen Anne" styles, but still with a character of its own, giving the beholder to expect comfort and common sense within. The plan is simple; from the veranda, A, entrance is gained to a large vestibule, B, which opens to G, 13 ft. square, which was used as an office by the physician for whom the house was built, but may be made into a reception-room or library, or bed-room if necessary. O is the hall, with staircase to the upper floor. D is the parlor, 15x19, exclusive of the bay window. E is the dining-room, 15x17, with a recess, M, for a sideboard, and a china-closet, N. Both parlor and dining-room open by French windows upon F, a balcony or terrace, which corresponds with the veranda, A, on the other side of the house, and thus preserves the sym-

main flight. P is a chamber, 13x14, with a dressing room and a large closet. R, the guest chamber, is the same size as the parlor below it, and has windows on the three sides. S is a chamber 15 feet square, having also a dressing-room connected. T is the bath-room, and W W two small bedrooms for children or servants. Three chambers may also be finished off in the attic, one in each gable. The rooms in the first story should finish ten feet high, and in the second nine feet. The first floor should be at least five feet above the

expects to make the most out of them. There are no evidences of beneficent design in most of the pastures in this country. They are the work of chance or neglect.—[New York Times.

Saving Seed Corn.

The growing of good, sound seed corn, that will yield a maximum crop, properly begins a year beforehand in the shaping of the character of the seed. Therefore select the seed for 1884 and 1885 from the ears already growing in the field, and give it special care. As a rule, any thrifty farmer can raise better seed than he can buy, and it should be in his programme every year to give his personal attention to the growing of his own seed corn. There is money in it. Every thinking farmer must see that he has a money interest in securing sound seed corn, and in knowing just what he plants. He is suffering loss every year, probably from want of a little timely attention to this matter. He uses unsound corn, possibly, for seed, selects from the corn-crib the best he can find, or borrows from a neighbor as careless as himself about the seed that he plants. A part of the corn rots in the field, and he has to plant over, which makes extra expense. To get maximum crops, you must have seed perfect after its kind, with the normal quantity of starch, gluten, oil, and other constituents that belong to it. The plant must be well fed, cultivated, and ripened in its appropriate season, to mature this kind of seed. We say, then, select your ears for seed corn, as they stand upon the stalk, perfect ears, well capped. Put a string upon them, or some mark by which they can be

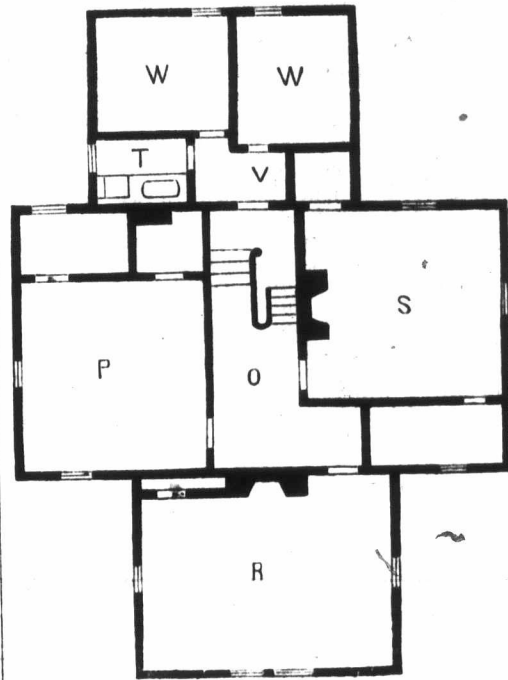


GROUND PLAN.

level of the ground outside, but the earth should be graded up nearly to the sills; this allows the water which runs from the eaves in wet weather to run away from the house before sinking into the ground, and insures a dry and healthy cellar. It is useless to give estimates of the cost of such a house without the specifications as to materials and finish. Plainly built, at present prices in this vicinity, \$2,800 would cover the cost, or it might easily be made to cost three times that sum.

How a Pasture is Made.

In Great Britain, Holland, and in some of the best districts in this country, land is selected for a pasture as it is for any particular crop. Regard is paid to its adaptability to produce a large amount of fine rich grasses. The soil of sod, is prepared to receive the seed, which is selected with special reference to the production of grass to be eaten while it is in its green state. Great pains are taken to render the soil as productive as possible. Water is supplied or drained off as the wants of the land require. Weeds and bushes are exterminated or kept in subjection. Fertilizers are applied as they are to land devoted to cultivated crops. Loose soils are rendered more compact by the use of the roller, and very heavy soils are loosened by the employment of the harrow or scarifier. Most farmers in this country, however, neglect all these things. Land is not selected for a pasture. If it is too rocky, broken, or difficult to cultivate; if it is too wet or dry to produce good crops of corn, grain, potatoes or roots, it is devoted to pasturage. Land is selected for other purposes, but the land for pasturage is what was rejected as unsuited for any other use. Sometimes a piece of land originally productive is devoted to pasture purposes. If this is the case it is generally after it "has been cropped to death." It is first planted to corn for several years, then sown to grain for a period equally long, and then laid down to grass suited for mowing purposes. After the crop of grass becomes so light that it scarcely pays for the work of cutting, the farmer concludes that the only thing he can do with the land is to devote it to supporting stock during the summer, when he



CHAMBER PLAN.

identified, and let them mature upon the stalk. To make sure of perfect drying, hang them up in bunches upon the south side of a building, or in a well-ventilated loft, or room with a fire in it. The perfect drying of seed corn is an important item. The corn should not be shelled until the cob is thoroughly dried. When you are ready for planting, pour the seed corn into a vessel of water and skim off every kernel that floats. That which sinks to the bottom of the water is the best, and, with suitable conditions of soil and climate, will germinate and bear fruit after its kind.—[American Agriculturist.

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Open Ditches.

BY C. G. ELLIOTT.

We are led to say something more about open ditches, because of their importance to the subject of tile drainage, and because of many apparent mistakes in their construction and use. It would be hard to estimate the value which our ordinary surface drainage has added to our agricultural products, and it is safe to say that the same ratio of increase would go on if the ditches already in existence were made more efficient by deepening, widening and properly grading them.

The efforts of land owners for several years past have been directed toward relieving their land of surface water in times of excessive rain. Open ditches are very slow in their action upon the land until it has become saturated, when water begins to flow over the surface until it reaches the ditches, and then the movement is very rapid toward the streams. Very much of our tile drainage is the same in effect. Drains are laid only in natural depressions, and a great deal of water which passes through the drains must first pass over the surface until it comes within the compass of the drain, when it passes off rapidly, and the whole process similar in action to the open ditch. This will probably continue to be the case, and high water evils will even increase until more systematic and thorough work in under-drainage is done. The effect will then be to hold in check the large rainfalls, and allow the water to pass off more gradually through a system of under-drains. The effect of thorough drainage in its bearing upon this question will be to give a more even distribution of the rainfall both to the streams and to the growing crops.

BEHAVIOR OF OPEN DITCHES.

Many ditches now found are very unsatisfactory to their owners, and inefficient by reason of defects which may be remedied. Owing to the labor of first construction, it is often thought best to make a small channel and rely upon the action of the water to enlarge and deepen it. If the ditch has a fall of twelve feet per mile, this action is quite effective. The sides of the ditch become under-washed and fall toward the centre, so that an obstruction is made which must be removed by hand-work. At the best the ditch is small and often overflows its banks. If the ground through which the ditch passes is flat, and but little washing away is done, it soon fills with sods and rubbish, and the ditch is pronounced a failure.

Many open ditches have just grade enough to keep their channels clear if they have the proper width, depth and side slopes. In fact, any open ditch with a fall as slight as five feet per mile will keep itself clear of sediment if it is of proper shape and graded on the bottom uniformly.

SIZE AND FORM.

Where it is designed that a ditch shall afford an outlet for a system of tile drains, and also be a water-course for a tract drained from various points above, it must be large—much larger than is usually provided. A ditch three feet deep ought to be twelve feet wide at the surface. This will give side slopes of two to one, which will not wash and cave into the channel. Another advantage which this gives the ditch is that a more even velocity of flow will be maintained, for, as the depth of water decreases, it will be more concentrated at the bottom of the ditch, and the scouring effect of the current will be maintained as long as the water flows. Another advantage is that it can be kept clear of weeds and grass more easily, for the ditch is always dry a part of the summer, and a growth of vegetation covers the sides, which growth must be removed if we desire to get the full capacity of the drain.

The above-described ditch may serve as a pattern, yet it must often be made wider and deeper to serve a special purpose. The writer would press this advice: Make ditches wide and deep at first, if possible. We can not afford to wait a series of years for nature to wash out and complete our work, when we have valuable land wasting every year for the want of drainage. *Strike at the root of the matter and get a drainage outlet which will be permanent and satisfactory.*

HOW TO DO THE WORK.

Usually it can be done when the ground has been dry for some time, this is just after harvest time, or still later in the fall. Determine upon a line for the ditch, making it as straight as is consistent with the nature of the land, remembering that the straighter the course the greater will be the velocity and flow of water. Use a strong three-horse team, and plow the ground with a road

plow. Then with road scrapers remove the loosened earth to each side of the ditch, taking care to scatter it evenly. Alternate the operations of plowing and scraping until the work is completed to a grade as near as can be determined by the eye. A level line should then be run along the bottom of the ditch and so marked that it may be brought to a final accurate grade. A strip of grass ten feet wide should be preserved on each side of the ditch in order that the banks may be held firmly in place. A grading machine is in use in some places, which greatly expedites the work if the ground is in a suitable condition.

Advantages of Underdraining.

The following extracts are copied from Waldo F. Brown's excellent treatise on "Success in Farming:"

It prevents the drowning out of crops in wet seasons.

It enables the farmer to work the soil earlier in the spring and sooner after rains.

It prevents the souring of the soil caused by excessive moisture.

It lessens the risk of freezing out in winter grain.

It lessens the risk of surface washing.

It keeps the ground moist and the crops growing in a dry season.

It makes the ground warmer.

It permits a more thorough pulverization of the soil.

It increases the fertility of the soil.

To read this list of advantages may at first make one think of the advertisements of some patent medicines which are warranted to cure all and the most dissimilar complaints, but there is not one of the above points but what has been demonstrated practically, and can be explained scientifically.

HOW DRAINAGE IS BENEFICIAL.

To comprehend this we must consider as briefly as possible some of the characteristics of the soil, and the requirements of successful plant growth.

No soil can produce useful crops when it is permanently saturated with water. Such a soil may grow reeds and rushes, but not crops of wheat or corn.

The best condition of soil for successful plant growth is found when the particles of the soil are moist, but when there is no standing water between these particles.

Whatever means will bring about this condition, will accomplish all the results just stated as being accomplished by underdrainage.

In wet seasons, if no adequate means are provided for removing the excess of moisture that falls upon the soil, it will be continually saturated, and the crops will be drowned out. Underdrainage, by furnishing means for the escape of the surplus water, prevents this.

It needs no argument to prove that underdrainage enables the ground to be worked earlier in the spring and sooner after rains, but farmers should consider the advantage connected with this. The success or failure of a crop may often be determined by the time when the ground for them can be prepared.

Water standing in the soil causes the vegetable matter to undergo what chemistry calls the acetic fermentation, thus rendering the soil sour and unfit for cultivation; of course underdrainage removes this evil by removing the cause.

The "freezing out" of winter grain is not occasioned by the excessive cold, but by the formation of ice in the upper part of the soil, which throws out the plant and leaves it to perish. If the soil is underdrained the water passes off through the drains instead of remaining in the surface soil, and this injury is avoided.

If the soil is full of water, that which falls upon it in rain must flow off over the surface, carrying with it much of the best and finest of the soil, and often doing much damage. Underdrainage leaves the pores of the soil empty, so that the water falling upon it sinks directly in, to be ultimately carried off by the drains.

All these points are reasonably clear, but we now come to a claim that at first seems paradoxical:—How can draining land keep it moist and the crops growing in a dry season?

First. By enabling the farmer to thoroughly pulverize the soil, which fits the soil for drawing up moisture from below.

Second. By preventing the soil from becoming baked and cloddy. When a soil is saturated with water and becomes dry simply by evaporation, it hardens and bakes so that it is incapable of receiv-

ing moisture either from the air above or the earth below.

Third. By causing the plants to send their roots deeper into the soil. When a plant begins to grow in the spring in an undrained soil, the roots will not penetrate into the cold lower soil, filled with stagnant water, but run along through the few inches of drier surface. When the dry weather comes the sun completely dries this out, and the plant having no other source of supply, perishes. On land that has been underdrained, in the condition described as most favorable for plant growth—moist, but with no standing water between the particles, the plant sends its roots far and deep. When the sun of summer dries the ground, the plant has communication with the cool moist soil far below.

The past season has demonstrated the truth of this claim beyond a question. The best crops were grown on the well drained fields.

Underdrainage makes the ground warmer:

First. By admitting the warm air into the soil. As fast as the water is drawn off from below, the warm air follows, penetrating and warming the soil.

Second. Because a dry soil can be warmed more readily than a wet one.

Third. Because evaporation is avoided. Every one who has ever been caught in a shower of rain, and stood with wet clothes on, knows how the evaporation of the water chills him. Science teaches us that the evaporation of one pound of water requires four times as much heat as would be required to raise the same amount from the freezing to the boiling point. We see therefore that if the water that falls upon the soil remains until removed by evaporation, all the heat which should be making the soil warm is being wasted in evaporating the water.

Everybody knows that if a jug of water is wrapped up in a wet flannel, the water in the jug will not get warm as long as the flannel is kept soaked with water. Just so with the soil. It will not get warm as long as the surface is full of water.

Experiment has demonstrated the truth of the theory in this matter. One experimenter made a number of tests in two adjoining fields, one drained, the other undrained. The average temperature of the soil in the field that had been drained was 6½ degrees higher than in the other. Further experiments have fully confirmed these.

And this adds another to the seasons why drainage enables the earlier cultivation of a field and lengthens the season: the ground becomes warmer so much earlier in the spring and remains warm later in the fall.

Drainage increases the fertility of the soil in exactly the same way as pulverizing does—by enabling the soil to absorb fertility from the atmosphere.

More about Ensilage.

BY H. S. WALDO.

Many extravagant statements have been made by ensilage theorists in regard to the value of ensilage as a feed for our farm stock. It has been claimed that cows will increase in quantity of milk if taken from the best pasture and confined to ensilage; that by its use gilt-edged butter can be produced at all times of the year; that any of the farm stock (hogs and poultry included) can be fattened on it alone, and that sixty tons of green corn can be produced from a single acre in one year.

Such statements are, without doubt, very extravagant, and give rise to much argument and doubt as to whether or not it is of any especial value as a winter feed.

I think there are a great many people who get an erroneous idea of what is meant by ensilage. It seems to be generally applied to corn fodder; but rye, oats, grass or any green fodder can be ensilaged as well as corn. The reason that corn is generally used is because of the larger yield it will produce per acre.

Much has been said about the fermentation of the ensilage while in the silo, and that it acts as a stimulant, affecting cattle as alcohol does men. This is, however, an improper word to use, as there is no genuine fermentation in the silo; that is, no alcoholic or acetic fermentation. For should any collect, it, being unconfined, would at once evaporate. The change that takes place in the silo is claimed not only to help digestion, but is, in fact, a part of a veritable digestive process. The peculiar smell of ensilage is not dissimilar to the partially digested food in the stomachs of animals feeding on vegetable food. The matter has

not been examined, as yet, to the extent its importance demands, and no one knows all the changes which take place in the silo.

One important thing in preparing ensilage for the silo is to have a good cutter, the knives of which should be kept well sharpened at all times, so that it will cut well and not drag the ensilage through in bruised strips. An upward cut is the most desirable for several reasons. The knives carry the cut fodder over the cylinder and completely separate from the dirt, grit, or any foreign substances that it may get into the fodder while gathering it, and prevent in many cases expensive breakages. Machines with a downward cut give a great deal of trouble, especially in cutting rye and grass, for the grass will wind around the axle and the machine will have to be stopped and the grass taken out; at least that has been our experience with them.

Ensilage is without doubt a very desirable feed to take the place of grass, both in the winter and the long droughts of summer, and is far superior to dry hay or fodder, for the cattle eat it better and become more healthy, and generally increase in their quantity of milk.

Fall Treatment of Meadows.

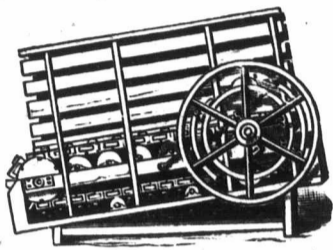
Now that the hay is off from the meadows, the propriety of pasturing the aftermath may be discussed. There are conflicting opinions upon the question. Some farmers prefer and advise to pasture the aftermath closely, leaving no dead growth in the bottom to smother the young herbage in the spring and to clog the mower when cutting the next year's hay. Some persons who are not farmers and cannot take a practical view of this matter, and some who are, think it better to leave the aftermath as a protection to the sod against the winter's frosts and thaws. There are some things to be said on both sides, but the right course depends upon circumstances, which vary considerably. For our own part, we prefer to get all we can from the soil, believing that the earth is generous and sufficiently fruitful to give us freely all we can take. Moreover, having had experience with grass lands that have a thick aftermath left upon them, and realized the difficulty of cutting the hay the next season, we would even take extra pains to have the aftermath as closely eaten or mowed off as possible late in the season. We have found, too, that the dense dead grass provides harbors for mice, which burrow in the sod and make havoc with the grass roots. It also protects the sod from frost and thus permits the white grubs and other insect larvae to feed upon the roots, so much so to frequently cut off acres of sod loose from the soil and leave it as free as a carpet upon it. These injuries are so severe and so frequent upon meadows covered with dead aftermath that we should view with great apprehension the probable condition of the sod in the spring. But we have said that it depends upon circumstances whether the aftermath should be eaten or mown or not. Certainly, it depends upon the condition of the grass and upon the character of the soil. If the grass is a new seeding and the roots have not taken a firm hold upon the soil, the aftermath had better be left as a protection to them. If the soil is one that readily heaves with the frost and there is danger of injuring the sod by tearing the roots, the same course should be taken. If the meadow is thrifty and the sod firmly established, we would take off all the grass up to the latest period of the fall, but we would repay our draft upon it by giving back to it early in winter a liberal top-dressing of manure, or just now a dressing of plaster or fine manure, which would strengthen the roots and thicken the sod and make this an equivalent protection by its denseness, as the aftermath could be by its length. One other point should be noticed, which is that if the grass is pastured it is indispensable that the droppings either of horses or cows should be broken up and evenly spread before the winter to avoid their wasteful and unsightly effects upon the field the following year. When sheep are pastured this is not necessary, and where there is a choice of stocks to be used sheep will be found by far the best for the purpose. In fact, a farmer might do well to give away the aftermath of a meadow to any neighbor who would pasture it closely with a flock of sheep, for the sake of even clearing of it off and the return of fine manure the flock would make to the soil.

—[N. Y. Times.]

Sints and Selps.

Improved Tread Power.

In this tread-mill power, the endless traveller consists of cast iron chain links jointed together and carrying lags which are connected to the links by a tenon on each end fitting in a corresponding mortise in the link. Carrying rollers are fitted to run in boxes attached to the frame, so that the chain links run along on them from one to another, and in order that the rollers may be of larger than ordinary size and placed further apart, the chain links have abutting shoulders above the pivot joints, which hold the lags up level for the horse to walk on. Each lag has a rib or cleat nailed on the upper surface just back of the front edge. The



rollers that sustain the weight of the horse may be larger, stronger, and easier running than where the rollers are attached to the chains. For a brake to regulate the speed of the machine, a couple of centrifugal levers are pivoted to a couple of the arms of the flywheel, and having a brake-shoe on the short arm to act on a friction rim attached to the frame, the long arms of the levers being connected to the rocker bar by rods, and to the rocker one of the levers is connected by a coiled spring and adjusting screw, which tend to keep the brakes off the rim when the speed is not too high; but when excess of speed throws out the centrifugal levers the shoes will be pressed on the rim till the speed slows to the proper limit. The machine is provided with a simple stop device and is improved in other details.

A Cheap Gate.

This gate is designed merely for farm use; wood and metal or wire are combined in a novel manner in its construction. It may be cheaply made by unskilled labor, and combines lightness with durability. The gate is composed of two wooden uprights, one at the hinge end and the other at the



free end, two horizontal rails and an oblique brace connecting the rods as shown. An iron brace connects the upper end of the inner upright, and is provided with an eye which receives the pintle of upper hinge. Wires are stretched between the uprights, forming a complete panel. This gate is very light and at the same time simple and strong.

Calf Weaner.

This invention relates to the class of calf weaners adapted to be attached to the central cartilage of the calf's nose, like a bull ring, the parts of the weaner being provided with sharp points that come against the cow's bag when the calf attempts to



suck. The parts or sections of the device are attached together by a pivot forming a part of one of the points. They are held closed by means of a small screw. This device is very effective, simple, and cheap.

Fruit Garden.

Among the Raspberries.

BY T. C. ROBINSON.

The early part of the summer seems to have been exceptionally favorable to the raspberry crop, except where the land was too heavy or too low. In this district we have had lately a three weeks' dry spell, but the ground was so thoroughly soaked before it commenced that the bushes were only beginning to suffer; and, on the whole, all kinds have done as near their best as we may ever have reason to expect.

Among the host of varieties, new and old, that now bewilder the horticulturist, the old Philadelphia seems worthy yet of something more than a passing notice. Of course its value lies in its immense productiveness, and we have learned by heart its disadvantages of poor color, softness and frequent tendency to crumble. Yet for home use its color is a very small point of objection; its softness is an advantage in working up with sugar and cream at the family board, and its tendency to crumble is not at all observable on good soils and with fair treatment. Its quality, too, which is often spoken against, impresses me as very good for a family fruit—not high, but eminently agreeable to the average taste, and much better than Brandywine, Thwack, and some others that are often praised. No doubt, for market, and especially for shipping, it is behind the age; but in the home garden, for comfortably tightening the family waistbands and replenishing the family preserve jars, there is nothing like it that I know of among all the old varieties. It will please the wife, make happy the little ones, and take up so little space in proportion to its yield as to leave plenty of room for the aristocratic Cuthbert and kindred big fellows, in which the master of the house can take pride before his delighted guests.

The once famous Franconia has had its day. As a market fruit, when you had fairly got it in the crate, it was of a high degree of excellence. But it was too hard to get it there. In many parts of the country it seldom could come through the winter alive, and in places where it did it suffered from the hot sun on any but the strongest soils. Sour, too! Let us turn to a pleasanter subject.

Clarke is a delicious berry. A seedling of the last named, it shows more vigor and willingness to fruit on light land, which, conjoined with its uncommonly sweet, delicious flavor, should give it a passport to the high places of the home garden wherever it can easily be had and will stand the winter. The berries are of rather extra size, grains large, too soft for ordinary markets. Productiveness very good, but not up to Cuthbert and some others of the native strain.

Herstine is another fruit of the same general character as Clarke; an American seedling of the foreign (*Rubus Idæus*) strain, showing marked improvement in winter hardiness and ability to stand our hot suns, yet freezing down in the colder districts. The berry is about the size of Clarke, more conical, of brighter, handsomer color, earlier, not quite so sweet, but very good indeed, and seemingly more productive. It is a berry that for the home garden or a near market can hardly fail to give great satisfaction wherever it gets fair treatment and the winters are not too severe.

The Highland Hardy I find strikes me very variously as the season advances. Just now it seems a miserable concern in comparison with the large late sorts, and scarcely worthy of garden room; yet I remember that I regarded it as exceedingly valuable when it first came in. It is so early that the first wild berries that ripen on sunny slopes facing the south, cannot get to market before it; and, reaching our customers in the same crates with the last good pickings of Manchester and Windsor Chief strawberries, it brings the highest price of the season; and it looks so tempting and tastes so good then that few can resist its charms. Yet it is small and it is a poor bearer. In a season when raspberries are plentiful it pays well; but in a poor raspberry season, when the later varieties bring a good price, then the small crop of the Highland Hardy is decidedly at a discount. If the clever men who grow seedlings will only give us a berry as early as this, and a good bearer, we will not grumble so much about the size, as the market growers who get it before the crowd will make money. Perhaps we have this, with added size, too, in the Hansell, or the Superb, or the

Crimson Beauty. I wish I could tell positively which. I would soon increase my modest plantation of these varieties, or of the one that would best fill the bill. But we must wait for tests.

Turner puzzles me as to its origin. Surely this, the hardiest of all tested kinds, must be a pure native (*R. strigosus*). Yet the appearance of the foliage, taken along with the assertion of Prof. Turner, that he grew it from seed of the Hudson River Antwerp, seems sufficient to cast a suspicion upon its native claims, especially when it mildews a little. Yet this fault is so slight, and it is so vigorous and so hardy, and so sweet and good, that it stands out as the only raspberry that can be confidently recommended for localities where the winters are particularly severe. It begins to ripen three or four days after the Highland Hardy, and before any other tested variety that I know of, so that it seems well worthy of a place in the home garden anywhere for early berries, and for a near market it takes very well. I think it bears over half as much as the Philadelphia, but it is much handsomer and better flavored, and rather larger.

Knevet's Giant and Victoria are two English varieties that in the lake regions will greatly please the careful amateur gardener with delicious berries of the very largest size; and in some seasons, on rich land, they will yield a very large crop. Knevet's Giant is the largest, Victoria the sweetest; both good enough to please any man that can be pleased with red raspberries. Yet they are of the pure foreign strain—like Franconia—difficult to manage; and even where they succeed, the family vote will probably place them behind Clarke and especially Herstine, which look nearly as fine, taste as good, and are more reliable.

But Cuthbert is the variety that casts a shadow on all of these noble varieties. Not that it is more productive than any, or larger, or hardier, or sweeter, or firmer—well, yes, it is very firm. But it is so large, so handsome, so hardy and so productive, as, in my opinion, to distance by its combination of excellences all tested varieties. This can now be said without suspicion of motive, for it is getting about as cheap as any in cultivation, although our growers move so slowly that it must take some time yet to become very common. It is not that it is good for only one or another class of growers; but the man who plants for the family will find it fine for the family, fine to show his guests, fine to market, if he has a surplus, and fine to ship to a city market, if the local demand is over-supplied. Be it remarked here that with all the cry about the glut of wild berries, the Cuthbert will probably make its way in almost any town in our Dominion where it can be produced. Markets that are glutted with strawberries are often poorly supplied with wild raspberries, and these even would soon give place to a large fruit like the Cuthbert. Yet its faults are plain. When we get a berry that with equal firmness, size, quality, hardiness and productiveness, can show "scarlet red" instead of "cherry red," rather more vigor of growth on poor land, and a smaller cavity where it fits the stem, then Cuthbert, too, must retire, especially as it now and then suffers from "curl-leaf." But we may have to wait long for such a new-comer; meantime, for one will rejoice in this prince of red rasps while it yet is first. I would rather eat it than any red raspberry I know of, except perhaps the Clarke, and I think it comes nearer in bearing to the Philadelphia than any other of its class, while nearly double the size. It is about as hardy, too, but will sometimes freeze where the Turner will come green through the winter.

Lost Rubies are too sour to please me. It needs to be planted near other varieties, as the flower is not perfect; and I had it isolated, and on a low, wet spot, too, so that it did not have a fair chance with me. But I do not think it will prove equal to Cuthbert on further test, unless it develops superior hardiness to Cuthbert. But folks who like acid fruit may be pleased with it. Its grains are quite large, and it seems hardy enough.

I thought the Reliance might beat the Cuthbert, for it seems more vigorous in growth, and, being a seedling of the Philadelphia through two or three generations, it might be expected to come out ahead in productiveness. Perhaps it will on further test; I have only seen it on one year plants. But the berry does not come up to Cuthbert in size, appearance or quality, and I pronounce it not the berry to succeed Cuthbert for all purposes, whatever it may yet prove for home use.

Shaffer's Colossal is the first raspberry I have seen that fairly meets the Philadelphia on its own ground and beats it. This, too, I have only tested on one year plants; but growth and crop have been

fully equal to those of two year plants of many varieties, while its growth of this season I think I will pass as "huge." I cannot speak positively, as one might from close comparison of the varieties with equal chances, but I think it will yield a larger crop than Philadelphia, while the berries are about the largest I have ever seen. I am well pleased with the quality, too; it is certainly not of the best, but it is quite pleasant—not dead sweet, like Philadelphia, but with a certain agreeable quality mixed with its sub-acid flavor that most people like. It does not send up suckers, which will be a great recommendation to the careless gardener, and it seems as hardy as any sort in the garden. True, it is quite soft and will not keep well over a warm night, and its Philadelphia color is against it in market. But it sells well here, and I purpose setting it out with the expectation of finding it the most profitable I can plant, unless I have to ship.

I must reserve my notes on black caps and white rasps for a future article, and now condense these rambling jottings by recommending as the best I know—

1st. Cuthbert for a late berry, for all possible purposes, except where the single item of quantity is the one desideratum.

2nd. Shaffer's Colossal for home use and a local market, where color is not very important—with a few Philadelphia as a "stand-by."

3rd. Turner for an early berry for home use or a local market where color "counts," and for all purposes where the winters are very severe.

4th. Herstine and Clarke are very fine berries for the family and home market, where color, size and flavor are in high demand.

The great want of the day is a good early berry; with the above six sorts we can wait complacently for developments.

The Principles of Successful Orchard-ing in the Province of Quebec.

BY R. W. SHEPPARD, JR.

If success is to be expected in the cultivation of orchards in this severe climate of ours, much greater consideration must be given to the selection of more hardy varieties than is generally the case when farmers set out trees.

The failure of a large percentage of the orchards of grafted trees that have been planted out within the last twenty-five years must be attributed to the fatal mistake of setting out tender or only half hardy varieties; of course there are other causes why orchards have failed, but that is the chief one in this Province, at least. A farmer who contemplates setting out an orchard ought first to consider what varieties he should plant. He is not planting corn to be cut down in the autumn, but trees, which should live long after he himself has passed away—a legacy to his children and grandchildren. Unfortunately, there are few nurserymen in this Province, and they, having only small nurseries, can only supply local demands, and in consequence the majority of farmers have been the prey of agents of large nurseries in the States or Western Canada, who, offering their surplus stock at slaughter prices, and adopting a plan of delivering the trees, freight paid, at the nearest railway station, thus putting the purchaser to little trouble and expense, have sold varieties totally unfit for this climate. We cannot grow, successfully, five per cent. of those varieties of apples which are the leading commercial kinds of the Ontario fruit growers. When I say cannot, I mean that the trees would not live long enough, under the most favorable circumstances, to yield paying crops. I would not dream of setting out a thousand trees of the following varieties:

Northern Spy, Baldwin, Golden Russet, Rhode Island Greening, Ribston Pippin and Spitzenburgh; yet these are the leading commercial kinds which the report of the Ontario Fruit Growers' Association for 1881, tells us are cultivated in that Province. The Golden Russet, perhaps, can be profitably grown, but yet it is not hardy enough to induce me to plant out a tenth of a thousand. A friend of mine in Mississquoi County informed me this spring that he lost 60 trees of that variety last winter.

Half-hardy varieties, Fameuse for example, from Ontario nurseries, and planted out in this Province, do not succeed as well as trees of the same variety, from a Quebec nursery. I have proved this fact to my own satisfaction, by trees in my experimental orchard. In 1876, I planted a row of Fameuse, received from Galt, Ont., and in the same orchard, only a few feet distant, a number of the same variety from Abbotsford, Que. What is the result? To-day the Abbotsford trees are sound

and healthy; those from Galt nearly all, if not all, diseased and dying. Now the latter have had the same care and attention as the former and grown in the same soil. Why this marked difference? Because the Galt trees, nursed in a milder climate, were induced to grow until late in the season, the fall before they were sent to me. The young branches, no doubt, ripened their wood sufficiently to withstand the winter in that part of Canada, but not in this. The mischief was done the first winter here. The young branches are now main branches of these trees, and are all diseased and rotten, at their junction with the trunk, easily breaking off with the weight of fruit or in high winds.

The Hon. J. J. C. Abbott, whose orchard at St. Anne's is situated within a dozen miles of my own, has had much the same experience. His first trees were from Ontario and the west, and are dead or dying, never living long enough to bear paying crops; but now he has a large and profitable orchard of Quebec nursery trees.

What varieties do I recommend? Well, I have tried over 80 varieties of apples, but can recommend very few to grow for profit. The following, however, are the leading varieties:

Tetofsky, Duchess of Oldenburgh, Peach of Montreal (for summer.)

Alexander and St. Lawrence (fall.)

Winter St. Lawrence, Fameuse, Wealthy (early winter.)

Canada Baldwin and Ben Davis (late winter.)

Fameuse is undoubtedly the most profitable apple. It is such a heavy bearer, and the fruit of such quality, and so well known (the favorite in the Montreal market), that it is always saleable; but the tree is not quite hardy enough. A large percentage of those planted out, however, with good care and cultivation, will live long enough to bear heavy crops for ten or a dozen years.

The Wealthy (a new apple from Minnesota) is, in my opinion, quite hardy. The best evidence of hardiness in a tree is when the buds at the ends of the branches (terminal buds they are called) start to grow in the spring; it is a sign that the tree is hardy, and has ripened its wood to the very tips of the branches. I have never seen it otherwise in the "Wealthy." But the hardiness of the "Wealthy" was conclusively proved in my nursery at Como last winter. It was, perhaps, (owing to the want of snow protection) one of the most severe winters we have had for many years. Of 1,000 two-year-old Wealthy trees, not more than two per cent. was winter killed. Whereas the 500 Fameuse in the next row, four feet distant, quite, if not more than fifty per cent. was completely killed out.

The "Wealthy" compares favorably with Fameuse in size, color, flavor and productiveness, and under like conditions, the fruit will keep a few weeks longer. I have about 700 Fameuse trees in my orchard; they look well and pay well, but I shall set out no more. I have 100 "Wealthy" in my orchard; they look better and healthier and will pay better, because being more hardy trees, will live longer.

Winter St. Lawrence, a fine large apple that keeps as long as Fameuse, and is as profitable. The tree is hardy.

Of the late keeping varieties, Canada Baldwin and Ben Davis have proved quite hardy and productive. The former is a beautiful red apple of fair flavor. "Ben Davis" is an apple of fair size, but rather poor quality. Both these varieties sell well in the Montreal markets. This season I sold my "Canada Baldwin" at \$4.50 per barrel.

In planting an orchard, bear in mind that the trees of three years growth from the bud are the best. A small tree with all its roots intact, can easily be taken out of the nursery, and if transplanted properly, must grow. Do not plant the trees deeper than they stood in the nursery; dig large shallow holes. It is no advantage to dig deep holes, and to fill them up (before setting trees) to the desired height; that only induces the roots to strike down into the poor cold sub-soil. Spread out the roots well, shovel in surface earth carefully; when the hole is nearly full, pour in a pail of water, which will carry the earth all around the roots, filling up all interstices.

After planting, mulch the surface of the earth around the tree, for three feet with the straw, chips, or coarse manure, and wash your trees with a weak solution of potash and water, or soft soap and water every spring. I generally have this work performed in the early part of June, when the insects are most active. The washing destroys borer eggs, bark lice, &c., and gives the bark of the trees a nice, fresh, healthy appearance. Borers

have been a great annoyance to me. I would not have had a dozen trees at this time if we did not make it a rule to examine the trunks of the trees just below the surface of the ground, twice each season, June and October. After a little practice a man can detect Mr. Borer's presence very readily. My man takes a week to thoroughly examine 1,500 trees, and cut out the depredaters neatly without injuring the tree.

I find the best fertilizers for an orchard to be wood ashes and barn manure. I use a large quantity of ashes. But were I so situated as to be unable to procure this fertilizer, I would try phosphate, bone-dust and lime, as I am quite convinced that high cultivation is absolutely necessary to success in orcharding. The fourth or fifth year after the trees have been set out, I seed down to clover, and cut one crop each season, the second crop being allowed to lie down. But Mr. McColl, in Two Mountains County, who sells over \$1,000 worth of apples from his orchard annually, cultivates his orchards like any other field, raising oats, barley, wheat, &c., without apparent injury to his trees, but he also manures very heavily. But, in my opinion, it matters little what crops we raise in the orchard as long as we keep up the vigor of the trees. The trees should make at least 12 to 18 inches of the growth each season. A tree that makes little growth cannot be healthy, and when growth ceases, it dies.

Time for Setting Currant Cuttings.

An experienced gardener of Indiana is of opinion that very few persons who plant currant cuttings do it at the right season of the year. It is usually done in the spring, when in fact it should be done in the fall. I have had a good deal of experience in propagating cuttings. I always plant my currant cuttings in the fall as soon as the leaves fall off. They will make durable roots two to four inches long the same fall, while the buds remain dormant. They will make double the growth the next season if set in the fall, that they will if not set in till spring. They should be set in ground that will not heave them out by the effects of frost, and should be covered just before winter sets in with coarse litter. Remove the cuttings early in the spring, and examine the cuttings to see if any of them have heaved, and if so, press them down again. Should they heave up an inch or more, if well pressed down, they will start and make better growth than cuttings in the spring. In either case, however, the cuttings should always be made in the fall.

About this time look out for the borers in the fruit trees. Most of them were deposited in the form of eggs on the bark of the tree near the ground in June or July, and these have now hatched and begun to penetrate the tree, but have not entered so far that they cannot be easily taken out with the point of a knife, or punctured by the insertion of a fine wire into the hole they have made, which can be easily found by the castings each has thrown out behind him. It is suggested that the strips of tarred paper and the patent arrangements for preventing the ascent of the canker worm are looked upon with favor by the beetle, that is the parent of the apple borer, as furnishing an excellent retreat in which to hide while she deposits her eggs. She wants a secret place, or she desires to be sheltered from the wind, and upon this account there are not apt to be as many borers in a tree growing in ground kept well cultivated and free of weeds, as in those standing in grass or high weeds, or surrounded by suckers. It will be well, therefore, to examine also under the paper.

The Canadian fruit packers and vegetable packers held a meeting in Hamilton the other day, changing by-laws and revising prices. Reports of the state of the fruit and root crops from various sections of the country were unfavorable. Advices from Quebec, the Secretary says, were even more gloomy than those of Ontario. Tomatoes will not be half a crop, and corn will be little better. Apples and plums will also be a very poor yield. Smaller fruits generally promise poorly, and at all events very small quantities will be put up.

It is best to harvest pears before they are ripe and eatable. When they have attained their full size and begin to show signs of ripening, they should be picked and allowed to color and ripen in a warm, dry chamber. Their flavor and color are usually better when treated in this manner.

The Apiary.

How I Feed my Bees.

BY WILLIAM ELLIS.

Examine now, as soon as possible, and if you find them lacking stores feed them granulated sugar syrup; use only enough water to melt the sugar; make a simplicity feeder; it is simply a piece of pine 3 inches square, by 10 or 12 inches long, and cut three slats in one side, leaving two narrow partitions that the bees can hold on while feeding; at night fall set the feeder at the entrance and feed about half lb. The queen will soon be laying (if she has stopped), and will soon be building up and increasing in numbers. I use the Root Simplicity hive, "Langstroth Frame." I always leave in 10 frames (full size) but believe that a colony can be wintered on 8 as well as 10. I would let every hive have not less than 30 lbs. each. Four or five lbs. is nothing when your colony comes out booming in the spring. If they have not taken in all the syrup by morning, take it away, as it might cause robbing; if it should, close the entrance so that only one bee can pass the other; I would examine in a few days to see if the queen was doing her duty.

Wintering Bees.

BY LESTER STOCKTON.

I give my way of wintering bees. About the first of December, sooner or later, according to the coldness of the weather, I put my bees in the same cellar that I keep the milk in in summer and potatoes in winter. I set the hives along one side of the cellar about one foot from the ground on planks, with blocks under them, and six inches from the cellar wall, all the fly holes next to the wall; from three to six hives may be set in height, but only one in width. Put two strips of inch board between each hive to give ventilation; leave the tops of the hives on the summer stand; leave the fly holes and the holes through the honey board open. Set a stove about four feet from the hives and near the centre of the row of hives. I make a fire in the stove before I put the bees in, and have the cellar good and warm when I am putting them in, and keep a fire from six to twelve hours, or until all the wet is dried out of the hives. The great difficulty in wintering bees is to effectually get rid of the dampness and wet. I give my bees a good warming about once every two or three weeks, or as often as the drops of water can be seen on the glass of the hives. Keep the cellar perfectly dark, and always make the fire in the evening after the day the bees are put in. The light from the stove must not be allowed to shine on the hives. The light of a lamp will not do any harm for a short time.

While the bees are in the cellar all hives that are six years old or more should have the bees turned into some newly stocked hives, and the old dirty combs all cleaned out in the spring, and stock the hive again. Turn the hive upside down on the cellar floor, that is to be cleaned; take off the bottom board, and take the bottom board off the hive that the bees are to go into, and set it square on to the one to be emptied, so that the combs will meet together, and if the bees don't all go in to the top hive in a week, take the honey board out of the lower hive and blow some smoke in among the combs, and the bees will soon go up with the upper stock, and they will winter together a great deal better than if single. Take what honey is good out of the empty hive, and give all the old dirty combs and hives to the bees in the spring before they can get any honey from the flowers, and that will encourage breeding early.

"At Picton, Ont., the Quinte Canning Co. are putting up three hundred thousand cans of fruits and vegetables. They expected to put up about a half million cans, but in consequence of the short prospects of tomatoes, corn and some fruits, they do not expect to go much beyond the first number. This put-up has all been contracted for, and only the shortage of crops prevents them from doing a larger business."

The demand for vegetables and fruit is growing immensely, and our farmers should see the advantage of the vegetable and fruit garden from the profitable as well from its health-giving luxury.

The Horse.

The Shire Horse.

During the past decade cart horses and cart horse breeding have received more attention in England than in all their previous history. It is no doubt owing to the natural desire to emulate the care bestowed on other branches of the live stock of the farm. The Shire horse breeders have been unaccountably laggard in following the lead of the breeders of the thoroughbred horse, but they have at last taken a leaf out of the book of the admirers of the race horse. Public taste is credited with keeping the cart horse so much in the rear in point of improved breeding. Many people favored a clean-legged horse. The prizes for dray horses were dropped from the schedules of the Royal Agricultural Society, and the demand for the Shire horse consequently decreased. The clean-legged cart horses, it was soon found, failed to bring remunerative prices for their breeding; it also became apparent that their feet did not stand the wear and tear of the London pavements. It was not long before the public discovered that a horse with bone and hair, if active, was capable of doing better the heavy work on a farm and on the London streets than its clean-legged rival. From this ultimate judgment sprang the great demand for the large-boned, big, black horse, well-known for over a century in many English districts as the Shire horse.

So steady has been the increase in the demand for this horse that high prices encourage their breeders to produce none but the best. The Shire horse was bred over a century ago in the English counties of Derby, Nottingham, Stafford, Leicester, Lincoln, Northampton, Cambridge, Oxford, Huntingdon, and Buckinghamshire. It is not an aboriginal breed, but was imported from the continent after the Norman Conquest. It is even believed that the horses employed in the army of William the Conqueror were little better, as respects breeding, than the cart horses of the present day. A large, massive animal was required to support the enormous weight of the steel-clad knight of that time, as well as to withstand the ponderous attack of a similar opponent. The half-bred horse was then unknown, while the imported Spanish and other horses were of insufficient size. Recourse was necessarily had to the large black horse, known from time out of memory throughout the fertile plains of Europe, and from which the greater portion of the present cart horses are doubtless descended. There was an established breed of cart horses in England in 1667, their prevailing color being black. The Shire horses are reared in the rich marshes or fens of the midland and eastern counties of England, and are rapidly spreading into other districts where lighter horses have hitherto been bred. They constitute a breed which is greatly prized for heavy dray work in the large cities and towns of England, and invariably command higher prices. The personal record of the famous stock getters of this breed is one of much interest to all who have to deal with horses. The only distinct breeds now recognized are the Shire, or the old breed of English cart horse; the Clydesdale and the Suffolk. The Cleveland Bays are almost extinct.

Fitting Young Horses for Hard Work.

In some lines of business in which horses take a principal part, the duties are light in summer, but increase when the fall season sets in. Those who work young horses do not usually give consideration enough to the fact that their natural growth creates a demand for liberal feeding, and that the attainment of large size can only be reached through abundant food being given. The working of young horses always involves risk, as the joints, tendons and ligaments are not strong, and the muscles are unaccustomed to the motions and severe strains that the duties of labor throw upon them. Hence we often see young horses that have done work upon the farm from three till four or five years old, travelling only on soft ground or dirt roads, worked with great moderation, hooked up beside steady-going work horses, and, if driven faster than a walk, always at a very moderate jog, and if at the plow, moving with a very deliberate step, and allowed a breathing spell at the end of the furrow. These young horses have usually been shod but little of the time, wearing shoes perhaps for a few weeks in winter, provided they were wanted for an occasional trip upon the road.

The Flower Garden.

Bauhinia.

This interesting genus of leguminous plants was named by Plumier, in honor of the brothers, John and Casper Bauhin (two celebrated botanists of the sixteenth century), in consequence of most of the species having their leaves composed of two lobes, which are either quite separate, or, more frequently, joined together by a portion of their inner margins, and which Plumier thought symbolic of the united labors of the two Bauhins in the cause of science. The numerous species are extensively diffused throughout the tropics, particularly in Brazil and India. They are generally climbers, frequently attaining a gigantic size; some few, however, form trees or large shrubs. Their flowers are produced either singly or in racemes opposite the leaves, and have a calyx with a cylindrical tube split on one side, or rarely five parted, making five unequal spreading petals.

B. tomentosa is a native of Ceylon, where it forms a small tree, growing about fifteen feet high, and having pale-yellow flowers spotted with crimson, which has given rise to the superstitious idea that they are sprinkled with the blood of St. Thomas, hence the tree is called St. Thomas' tree.

B. Vahlia is the Malvo climber of India, a plant whose gigantic shrubby stems often attain a length of 300 feet, and climb over the tops of the highest trees of the forest, twisting so tightly round their stems that they not unfrequently strangle and cause death, the stems ultimately decaying and leaving a sheath of climbers standing in their place. The young leaves and shoots are covered with a rust colored scurf, and are furnished with tendrils. The leaves are very large, often more than a foot in diameter, composed of two oval-shaped lobes, joined together for about half their length and heart-shaped at their base. The flowers are snowy-white, and arranged in racemes. The exceedingly tough fibrous bark of this species is employed in India for making ropes, which, from their great strength, are used in the construction of the suspension bridges across the river Jumna.

B. Corymbosa, the subject of our illustration, is comparatively an unknown plant, although one of very great interest. It is a woody climber of free growth, with bifid leaves, accompanied with short tendrils, producing terminal corymbs of beautiful flowers of a warm rosy-pink color, which is also the color of the stamens in the expanded rosy flowers. It is found in Hong Kong, but whether it is indigenous to that island is a question with those who have made that plant a study.

Spring Bulbs.

After our long winter, when, for four or six months, according to the season, no vegetation has shown life, save the Pines and the Spruces and their congeners, we hail with delight the first green blades that shoot through the soil. On this account some of our little, hardy, native plants that give their blossoms as soon as we have a few warm days, deserve careful culture, and it is a pleasure to know that in many places they are garden treasures. The Snowdrop, and the Crocus, and the blue Periwinkle, how quickly they rejoice in the returning warmth! For a mass of bright, rich color in the garden in early spring the Tulip is our main dependence, and it is worthy of all the attention its culture demands. For the best results annual replanting is necessary. To leave the bulbs in the ground in the same place from year to year

is sure to result in diminished blooms until the semblance to their former selves is lost. The Tulip is best suited with a spot that is well drained and fully exposed to the sun, and a soil that is a fresh, substantial, friable mold containing some sand. It should be enriched by the addition of plenty of old cow manure well dug in. In forming a bed the surface should be raised several inches in the central part in order to prevent water standing on it in the winter season. The bulbs can be set about three inches in depth and from four to six inches apart, giving the taller varieties the greater distance. The latter part of September and through the month of October is the best time for planting. Before hard freezing occurs it is best to give the bed a light covering of litter or evergreen boughs, or leaves, which are better than anything else. The question arises, how shall we manage with the Tulips? The best to be done in these circumstances is to set plants in the spaces between the bulbs, which are allowed to remain until ripe, and are then lifted and placed in a dry, shady, airy corner until they have

The general treatment of the Narcissus in the open ground is about the same as that of the Tulip. By reason of its fragrance, as well as its many beautiful varieties, and its free-blooming, it is quite desirable for house culture. The Jonquils are the most sweet-scented, and are favorites for potting on that account.

In potting Narcissus bulbs it is best to keep the neck or top of the bulb even with the surface of the soil; three or four bulbs can occupy a five or six inch pot. With proper management the flowers can be had by the winter holidays. To do this the bulbs should be potted about the first of October, the pots set away in a cold-frame, or in some snug corner, and covered at least a foot deep with leaves, and be left for five or six weeks, when some of them will be started, and they can be removed to the house, but not into a strong heat; a temperature of 60° will produce better flowers than a higher one. The Roman and the Paper White Narcissus, and the Jonquils should be selected for forcing. Narcissus bulbs flower quite freely in vases of water.

The varieties of *Ixia* are very beautiful and interesting. The bulbs are called half-hardy, and in this climate are only raised in the house, treating them the same as Narcissus. The flowers are from one to two inches in diameter and of many colors.—[Vick's Magazine.]

Propagation of Cuttings.

A simple method of starting cuttings of Geraniums and Fuchsias. Common saucers or plates can be used to hold the sand in which the cuttings are placed. The sand is put in to the depth of an inch or so, and the cuttings inserted in it close enough to touch each other. The sand is then watered until it becomes in the condition of mud, and placed on a shelf in the green-house, or on the window-sill of the sitting-room or parlor, fully exposed to the sun and never shaded. But one condition is essential to success: until the cuttings become rooted the sand must be kept continually saturated, and kept in the condition of mud; if once allowed to dry up, exposed to the sun as they are, the cuttings will quickly wilt, and the whole operation will be defeated. By the saucer system, a higher temperature can be maintained without injury, as the cuttings are in reality placed in water, and will not droop at the same temperature as if the sand was kept in the regular condition of moisture maintained in the propagating bench. When the cuttings are rooted, they should be potted in small pots, and treated carefully by shading and watering for a few days, as previously directed.

LILY-OF-THE-VALLEY cannot be planted in a place where it will not grow; in sun or shade, in rich or poor soil, it will thrive. There is no flowering plant that will do as well under a tree as the Lily-of-the-Valley, and none that will more liberally reward generous treatment. The best time to plant is in October; plant the pips singly, about three inches apart each way.

THE CARNATION AS A WINDOW PLANT.—A plant will not bloom continuously. If a Carnation which has been planted in the open border has flowered freely all summer, it is unfair to expect it to bloom through the winter. It should be prepared for winter blooming by depriving it of its buds during summer. If this has not been done, it will be well to cut off all the buds now visible upon the plants needed for winter blooming, and take them up before cool nights check their growth. Give the plants, after they have been taken up and potted, shade for several days.



BAUHINIA CORYMBOSA.

parted with some of their moisture, then they can have the dirt and the old skin removed from them, and be placed in paper bags, or in dry sand on a shelf in the cellar, to remain until planting time in autumn.

For winter and early spring flowering in pots in the house, what are known as the Duc Van Thol and Single Early varieties are employed. These come into bloom in the shortest time, and are of a great variety of bright colors. Three or four bulbs should be placed in a six-inch pot, covering them with two or three inches of soil. As soon as potted, water and then set the pots away in the cellar, and cover them by throwing three or four inches of soil over them in order to prevent their drying out rapidly. After six or eight weeks they will have probably made plenty of roots, and then can be taken up and exposed to the light.

The Duc Van Thol, Tournesol and Single Early varieties are best to plant in beds, as they soonest mature.

The Late Show Tulips require a season somewhat longer, but they are of great beauty, both in form and colors, and are most prized by Tulip fanciers.

Vegetable Garden.

Spinach.

This useful vegetable should be found in every garden. It is of the most value early in the spring for early greens, and for this purpose should be sown in the autumn previous on the richest and best land. For spinach the soil cannot be too thoroughly worked and pulverized. It can be sown any time during the present month, the earlier the better. As the soil is at this time of the year apt to be rather dry, especial care should be taken to get the soil fine and mellow, and by bestowing a little labor the soil can be got into good condition without waiting for rain. The seed should be sown pretty thickly in rows about twelve inches apart, say about three seeds to the inch, and either press down or roll the seed rows. This is about ten times as many as are necessary, but it is very desirable to have sufficient plants, as it is both undesirable and annoying to have gaps in the rows. As soon as the plants appear hoe and cultivate between the rows, the oftener the better. When the plants are fairly started thin out, leaving them about four or five inches apart. Many fail in their first attempts to grow spinach in the autumn for spring use because they do not take sufficient pains to prepare the soil and neglect to sow seed enough, or if the weather is dry neglect to roll or press the seed down. Just before winter sets in it is desirable to scatter a thin layer of straw or litter over the plants, say three inches, as protection. The Round Leaf is the most popular kind, and will stand the winter well; although the Prickly is said to be hardier, we have never found it so; but the latter is not near so prolific as the Round Leaf. After the spinach is cleared off the following spring the land is available for other crops. Lettuce for early spring can be grown in a similar manner. The White Cabbage is a good variety, and stands the winter well. A few boards placed on edge round the bed will be useful as additional protection.

Plants for Next Spring.

Those who are not versed in the ways of market-gardeners, are not aware that the seeds for the early crop of cabbages, cauliflowers, and lettuce, are sown in autumn. The plants, protected through the winter in cold frames, are set out very early in the following spring. It is useless for one to expect to have these vegetables early in the market, unless he adopts the method that years of experience has shown to be the safe one. The seeds are sown in autumn in the open ground; the young plants, grown to the proper size, are planted out in cold frames, where they are kept dormant, and at the same time protected from severe changes of temperature. They are set out very early in the following spring. The time for sowing the seeds to produce plants which are to be wintered, is of great importance. If sown too soon, the plants will be too large, and if too late, they will not be strong enough. After a long experience in the climate of New York, Mr. Peter Henderson has found it safest to sow twice. Once on the twelfth and again on the sixteenth of September, and would prefer to sow later than the last named date, rather than earlier. Of course the time of sowing must vary with each locality, the object being to have strong plants, ready for the cold frames, in four or five weeks after the seeds are sown. Farmers and others, who wish to have the earliest cabbages for market, should adopt this method. Sow the seeds this month; pick out the young plants next month into cold frames, and keep them dormant through the winter, until they can be set out next spring.

Planting Onions in Autumn.

It is much better to plant onion sets in the fall than to wait until spring. Aside from the gain of time by doing it in autumn, the risk of keeping them in good condition is avoided. They should not be planted until next month, or until so late that the tops will not start into growth. At this season the soil is warm and mellow, and the work can be done with much more comfort than in spring. The sets will commence their growth very early, and be much in advance of those planted in spring. Those who wish to raise their own onion seed, should select the bulbs and plant them out in autumn, taking care to cover them with at least three inches of soil.

Asparagus Culture.

As the ground for asparagus should be prepared in the fall, and the seed may be sown then as well as in the spring, an article on its culture will be timely and may prove interesting to your readers. For asparagus the soil must be deeply stirred. It is the better plan to trench in the fall, throwing the ground up into high ridges. When the ground is put in this condition the frost will disintegrate and pulverize it during the winter. In fixing the seed bed a fork must be used, as a rake will not penetrate deeply enough. Forking brings up from below fresh dirt to be exposed to the action of the atmosphere. If the ground is frequently forked over before the seed is planted, it is all the better. The ground should be well manured with good compost manure. Asparagus requires a rich soil. The bed should also be treated to a liberal application of salt.

The beds should be made four feet wide, with two rows of plants to each bed. The alleys between the beds should be two or three feet wide. As the asparagus is a native of cold climates, flourishing in the maritime portions of Russia where the soil is deeply impregnated with salt, the seed may be sown in the fall, on some well manured spot. The seeds are small, and one ounce will produce about one thousand plants. The seeds may be sown in drills nine or ten inches apart. When the plants are well up the space between the hills should be frequently stirred and kept free of weeds. When the plants should be transplanted, or whether it is necessary to transplant them at all, are questions far from being decided. Some gardeners keep the plants in the seed bed till they are two years old, others plant them out the second year, while still others sow the seed in the beds where the plants are to stand, and all have attained excellent results. It seems probable that success depends principally upon the preparation of the soil.

In the growing beds the plants should be placed in drills two feet apart and one foot apart in the drills. As before remarked, some gardeners prefer to sow the seed spaced as above, claiming that in this way they can raise better, or at least as good, crops as are produced by the old method, and at the same time save the labor of transplanting. Some pile up a heavy covering of rich soil early in the spring, and the plants growing up through this, form the toothsome white stems of the market. But the plan which I would recommend to your readers is to protect the beds during the winter and early spring months with a heavy covering of manure; break this up and fork it in before the plants come up in the spring, adding some fresh soil, and thus raising the bed to a moderate height above the roots. This treatment will insure strong and succulent stems, of a natural green color and superior flavor. Great care is necessary when forking in the manure in the spring not to damage the crowns of the plants by the operation.

It will require three years from the time of planting for the plants to produce sufficient buds and large enough for general use. The safest mode of cutting is to slip the knife down perpendicularly close to each shoot and cut it off slantingly three or four inches below the surface, taking care not to injure any of the young shoots that are coming up from the same stool. The bed will prove productive for many years, but it is better to make them anew every five or six years. Change the location of the bed each time. The old bed, being deep and rich, will produce large crops of vegetables.—[Farmers' Call.

The toad is very helpful to the husbandman as a destroyer of injurious insects, on which he chiefly feeds. Toads have a curious net-like lasso, which they throw out so quickly to trap insects that a fly is not sufficiently agile to escape. Boys, spare the harmless and useful toads, and the dear little birds that subsist on insects which destroy our fruit and grain. The President of the Farmers' Club of the American Institute, who owns a farm worth \$60,000 in Connecticut, once stated to the Club that he was accustomed to pay fifty cents each for toads, which were put on his farm to destroy insects. He places small pieces of boards over little depressions in the garden and about the yard, as refuges for useful toads.

Some kinds of garden seeds—as melon, beets and mangels—are good for a number of years if well kept through the summer in a cool, dry place. But the bulk of very small garden seeds are unsafe after the first year, and had better be thrown away than sown.

Poultry.

Poultry Plums.

BY R. A. BROWNE.

Some people have special aptitude for rearing poultry at a profit, and some at a loss, or at least make it pay badly; as some farmers are *lucky* with their horses, cattle, sheep and pigs, while others are constantly grumbling at their *ill luck*. To my way of thinking, the success depends on the knowledge and the care and labor bestowed. Sometimes there are instances where unforeseen events happen that may overtake the most careful and wise, and some of these are sickness, parasites, and theft. There is no breed of fowls that will lay and be a profit to their owner by the way of increasing in size and flesh, if afflicted with the two former mishaps. The first will soon make itself known if any sort of care is bestowed at all; but the second may be a source of annoyance for months without the uncautious knowing of their presence. The very worst of all those parasites that fowls are heir to, are the Hen Spider Lice. They are so small that multitudes of them may crawl over one's hands and yet not know of their presence. Their color is grey, but when filled with blood they are red. Look beneath the roost poles and about the crevices; they may be seen in little groups. As soon as touched, or annoyed, they move rapidly in all directions, so when the fowls get on the roost at night they crawl up on their bodies and sap their very life away so quietly that their presence is not even suspected. The first evidence is, the fowls move to new roostings, and so from place to place; their feathers become pale and faded looking; their combs become pale and shriveled. Then they cease laying, notwithstanding the amount of good wholesome food and free access to good pure water. To get rid of these pests, get plenty of unslaked lime, put it in a bucket, and fill with water; then take a brush or an old broom and completely cover every object movable and immovable inside the poultry house with hot lime wash. Do not leave even a nail head unwashed, or you leave enough seed to make all your work of no purpose and to give future annoyance. Now, as fall is upon us, is the time to fight every foe, when they may be the easiest removed. Be sure and burn the old roost poles and get fresh ones. Take every hen and dust with insect powder; dust your fowls all through their feathers. Feed some sulphur amongst their food once a day for three days; then apply some coal oil to their legs, and better give them, if possible, a new roosting abode for a week, when the white-washing should be gone over again; even the floor and ceiling all require the white, hot liquid in unsparing doses. Just put it on in pails full, and you will find your feed saved by pails full. Make your work complete, and as your hens are now going into moult, you will have the satisfaction of seeing them come safely through. Neglect to attend to the wants of your fowls, more particularly at this time of year, and moulting will surely result in failure.

Perhaps there is no kind of stock kept on a farm that are so forced to shift for themselves as fowls. Other animals are estimated at so many dollars, but fowls considered a necessary evil, when the fact is, there is no stock kept on the farm that will pay so well according to money invested in both stock and the food given them.

After you have your fowl house and fowls supposed to be clean, with new roost poles, get some old coarse cloth and wrap all round the roosts, and keep the cloth well saturated with coal oil for this winter, and when spring comes you will find yourself amply repaid for the trouble and expense by having a surplus of eggs, healthier fowls, and brighter and fresher looking feathers. Whatever is worth doing is worth doing well, and if poultry are not worth keeping clean, do not keep them at all. If you think it proper to keep your cow house or horse stable clean every day, when they are housed, then why not clean after the poultry, even once a week or oftener, for their droppings are more offensive than either of cows or horses, and should be more looked after? When we go into the several outbuildings of so many different people, and see the slipshod way their poultry are kept and looked after, we often wonder that there are any left to live—droppings left from year to year; lice, filth and feathers in great profusion.

Once more the show season is with us. It looms up with interest, and poultrymen, whether mechanics or farmers, alike will be earnestly engaged

in looking after their best birds, to have them looking their best. Plenty of good, wholesome food, clean apartments and strict attendance will bring the red ticket. It seems scarcely a year has passed since the same subject was before us; but our poultry journals are already on the alert and telling how to feed and how to show in order to win. But because every one cannot win the red tickets, some are prevented from exhibiting from lack of confidence in themselves or in their fowls. However, do not let us neglect to visit the fairs, whether we show or not.

A Model Hennyery.

Correspondents frequently inquire for a plan of a good chicken house to accommodate several varieties of fowls. We therefore give the following:—

This building is nearly seventy-five feet long, thirteen feet high and twelve feet wide. It is built of wood, the roof shingled. To the highest pitch of the roof it is thirteen feet. The elevation or height from the ground or foundation in front is four feet, which cuts a twelve-foot board into three pieces; the length or pitch of the roof in front is twelve feet—just the length of a board, saving a few inches of a ragged end; the pitch of the rear roof is six feet, and the height of the building from the ground to the base of the roof is just six feet, which cuts a twelve-foot board into two pieces. The ground plan and frame work are planned on the same principles of economy of timber. By this plan no timber is wasted, as it all cuts out clean; there is also a great saving of labor. The foundation of the building rests on cedar posts set four feet into the ground.

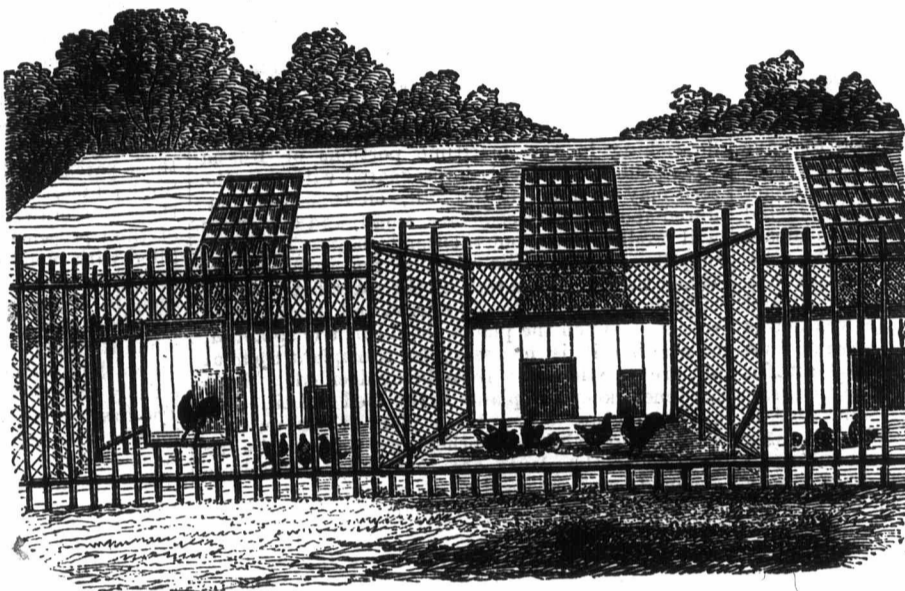
This house contains eight pens, each one of which will accommodate from twenty-five to thirty fowls; each pen is nine feet long and eight feet wide. All the pens are divided off by wire partitions of one inch mesh. Each pen has a glass window on the southern front of the house, extending from the gutter to within one foot of the apex of the roof, fixed in permanently with glass lapping over each other, after the fashion of hot-bed sashes; they are about eleven by three feet. Each pen is entered by wire door six feet high, from the hallway, which is three feet wide; and these doors are carefully fastened with a brass padlock.

The house is put together with matched boards, and the grooves of the boards are filled in with white lead and then driven together, so as to make the joints impervious to cold or wet. On the rear side of the house there are four scuttles or ventilators, 2x2 feet, placed equidistant from each other, and to these are attached iron rods which fit into a slide with a screw, so that they can be raised to any height. These are raised, according to the weather, every morning, to let off the foul air. Each pen has a ventilator besides the trap door at the bottom, same size, which communicates with the pens and runs. These lower ventilators are used only in very hot weather, to allow a free circulation through the building, and in summer each pen is shaded from the extreme rays of the sun by thick shades fastened up on the inside, so that the inside of the house is cooler than the outside.

The dropping boards extend the whole width of the pen, and are about two feet wide and sixteen inches from the floor; the roosts are about seven inches above and over this board. They are three inches wide and crescent-shaped on top, so that the fowls can rest a considerable portion of their bodies on the perches. Under these dropping boards are the nest boxes, where the fowls lay, and are shaded and secluded. The feeding and drinking troughs are made of galvanized iron, and hung with hooks on eyes, so that they can be easily removed when they require cleaning. One can stand at one end of this long house and see all the chickens on their roosts. By seeing each other in this way the fowls are made

companionable, and are saved many a ferocious fight; at the same time each kind is kept separated from the other. Each pen has a run 33x19 and 15 feet; these runs are separated by wire fences twelve feet high, with meshes of two inches.

The house is surrounded with a drain which carries off all the water and moisture, and prevents dampness. Inside, the house is cemented all through, and these cemented floors are covered with gravel about two inches deep. The house is heated in the cold weather just enough to keep water from freezing. The plan of this hennyery is remarkable for its simplicity and hygienic arrangement.

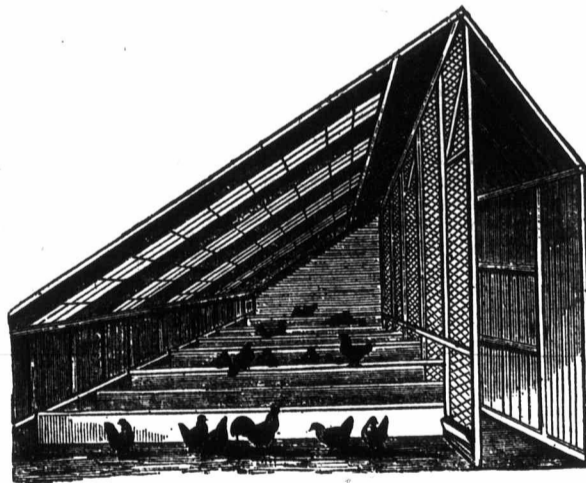


ELEVATION.

Breeding Table Fowls.

The production of cross-bred fowls for table purposes is now attracting considerable attention. Many persons who have not had much or any experience in the matter are asking for information regarding the best and most profitable crosses, and others are making suggestions as to the breeds that should be employed. Mere random suggestions are, however, of very slight value, and the crossing of breeds for the mere sake of crossing, without any definite aim, is not at all calculated to be a profitable proceeding.

Before matching up different birds to produce crosses, we should ask ourselves the question as to



INTERIOR

the qualities we require. If we want first-class fowls for the table, irrespective of other considerations, we must proceed in a different manner from that which would be necessary to produce great size, or great hardihood, or egg producing qualities.

For first-class table fowls, the qualifications are plumpness of breast, fineness of quality and whiteness of skin and fat, smallness of bone and absence of useless parts, which may be regarded as offal. To obtain plumpness of breast, we must have fowls that can fly; the wings are moved by the breast

muscles, and in the breeds that do not fly they become lessened in bulk—hence it is impossible to obtain a plump-breasted Cochon or Brahma.

The Game fowl, flying strongly and having small bone and good quality of flesh, offers an advantageous cross with the Dorking, giving hardy chickens, with early maturity and every quality that could be desired, except that they have not white shanks. To produce this cross to perfection, it is necessary that the hens should be good sized, game, and mated with a short-legged Dorking cock; the converse cross does not yield so good a result.

Crosses with Asiatic breeds, as with Cochons and Brahmias, give large size and good family fowls,

possessing great hardihood and early maturity, but there is much offal, and they are coarse-boned, and, though there is much meat on the legs, they are deficient on the breast.

If persons are desirous of trying a Cochon or a Brahma cross, an infusion of Game offers the best chance, as correcting many of the deficiencies of Asiatic breeds; or, failing Game, a good black or spangled Hamburg may be used. Birds of the Spanish type, viz: Leghorns, Andalusians and Anconas, are generally too leggy, though some short-legged large Minorcas may be regarded as exempt from such a charge.

The French breeds—Creves, Houdans, and La Fleche—are all so good table fowls that they can scarcely be improved upon by crossing, except that increased hardiness may be given. Although I have not found even the last named, the La Fleche, as delicate as they are represented, I am this

year running some large Game hens with La Fleche cocks, as last year I found that the cross-bred chickens were very plump, hardy, and matured early.

The number and variety of even first crosses that can be made is almost indefinite, but the great majority offer no prospect of advantage. What good could possibly result from crossing Spanish and Dorking? There would be loss of the great laying powers of the former, and the full breast and good table qualities of the latter. The Spanish is generally a bad bird to cross with; its most striking property (I am now speaking of the old fashioned stock, not weedy show birds), is the great production of large eggs. This property is lost by crossing, and no good gained in return. Another point of some importance is the fact that the breeding from cross-birds, even when they are mated with birds of pure breed, has rarely been found to be attended with satisfactory results. I certainly have succeeded in rearing chickens from cross breeds as good as the parent birds. Possibly the same care may not be taken in the selection of the parents or of the chickens, but whatever the cause, the fact remains, and I believe that I am not singular in my experience.—[The Field.]

Green Food for Winter Use.

The time is approaching when every breeder should see that his fowls are provided with green food for winter use. Fowls, as well as other animals, require a certain amount of coarse and refuse matter to keep them free from constipation, indigestion and other kindred complaints. Before winter sets in, store away cabbage, turnips, rowen, onions and potatoes for the fowls.

Cabbage is undoubtedly the very best and cheapest green food that can be had. It is not necessary or economical to purchase prime heads for their use, as the soft heads which are not marketable are just as good, and they cost one-half less. The same with turnips and potatoes; they can be had cheap by purchasing from farmers the small or refuse part of the crop. These articles can be stored in a dry cellar, and will be found very useful during the four or five months of winter, when the fowls require good, artificial feeding.

Correspondence.

NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post-Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. 3. Do not expect anonymous communications to be noticed. 4. Mark letters "Printers' Manuscript," leave one end open and postage will be only 1c. per ounce.

We do not hold ourselves responsible for the views of correspondents.

SIR,—I see by the last ADVOCATE that you ask for information regarding the sheep tape-worm. I write to tell you that it must be becoming general around here, because we often see it in the excrement of sheep which run upon the roads. Sheep I sold had it, and I have bought more since, and they have it, too. I had a lamb last year very badly scoured, whether caused by the worm or not I could not say, for all had it; but having read in the "United States Dispensary," that the European *male fern* was a specific for the same, I thought I would try the Canadian species. Well, I made a decoction of some in its fresh state, or, at least, of the plant which I suppose to be it, having seen teamsters give a similar root to horses in England, for some purpose; I gave some once or twice to the lamb, as I thought it would die in any case, and in three days it was able to eat heartily. Whether it did any good for the worm I know not. I just give you the circumstances. I did not give a purgative afterwards, as I ought to have done. I may add that the *male fern* grows in low, marshy situations in black muck.

T. W. R., Bewdley, Ont.

SIR,—As I am growing some corn for ensilage and will want a horse power hay or ensilage cutter, I would thank you if, in your next issue, you would tell me if there are any made in Canada that would be suitable, and at what price they are sold, and where to be had, and if more than one kind, and the merits of the different kinds or maker, as far as you can, or any information as to where they can be obtained, and oblige a subscriber.

N. Y., St. Croix, Hants Co.

[If any of our manufacturers make or have for sale ensilage cutters our advertising columns could be used to advantage at this time.]

SIR,—I have been taking the ADVOCATE for nearly two years; I like it better than any farmer's paper I have seen; it is a paper that should be in the hands of every farmer. Will you be so kind to tell me through your valuable paper how to destroy milk weed, or sometimes called cotton weed? I have a few plants on my farm and have dug up the roots and tried to destroy them, but it seems to spread over the fields very fast, although there has none gone to seed yet, and I cannot tell how it comes. I am very particular to keep my fields clean; is it a bad weed to get into the land? By answering the above you will greatly oblige.

N. E. O., Russell.

[If you properly cultivate your soil and keep it clean, the only remedy we know to eradicate them would be to hand pull any plant not killed by the plow, or to spud them out. Milk weed is not a hard plant to destroy, as it grows from seed, being only an annual.]

SIR,—Could you show any time a plan in your valuable paper, of how to build one of these 8-square barns?

M. N., Gulf Shore, N. S.

[Any of our readers having a plan of a good octagon barn will oblige by sending a copy of it to us.]

SIR,—I have read a number of articles lately in reference to black knot on plum trees. I am of the opinion some of the readers of the late articles published will be disappointed if they follow the instructions given, i. e., to manure the land and get it rich as possible to cause a vigorous growth. As my experience has proven, quite a different plan should be adopted. Four years ago I planted a number of plum trees in the garden, and those in the richest soil were the first ones affected. The ground is clay soil with hard pan sub-soil, and had been used for potatoes and corn for about ten years, with very little manure, if any, and was badly run out. I have manured well for four seasons, and any of the plum trees which were not killed during the hard winter three years ago,

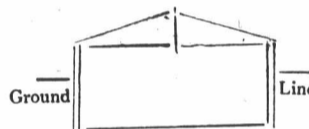
were free from black knot up to this spring, and, strange to say, one Lombard that was planted near the pig-stye, but received no manure otherwise, became a disgusting sight this season, being almost covered with the black fungus, although it bore a good quantity of good fruit. Since picking the fruit I have cut all the knot off, and there is very little left save the trunk of the tree and a few unsightly limbs. Two green gages planted in the dirt taken from digging the cellar, and so hard as to require the pick axe to do any thing with it at all, to the depth of 30 inches for two rods either way from these plum trees, for it was a low place and required filling up, and no manure has been applied since. Now these trees, one of them in particular, is free from black knot and loaded with large plums just about ripe. Now, Mr. Editor, if you think fit you can publish this my experience in the black knot, and when I get time I will write my idea of the way to grow plums in this country.

G. E. P., Ingersoll, Ont.

SIR,—I wish that you would give instructions for the making of a root house, and oblige,

W. B. L., Coldstream.

[All that are required for a root-house or a fruit-house for winter storage are a wall and roof sufficiently thick to keep out the frost. Any dry, porous substance that will not decay or harbor vermin may be chosen. Dry leaves, straw, marsh hay, or saw-dust, or even dry earth, may be used. Where the cold goes down much below zero and is long continued—and the long continuance is more to be considered than the depth of cold—the walls should be 2 feet thick. A double wall, kept from spreading by cross strips on the studs or posts, and the outer wall closely battened or protected on the inside by air-proof roofing paper, would be desirable. If the roof is lined with paper, and is made double with an air space only, that will be sufficient. A ventilator must be provided or the house may easily be too warm. Forty degrees is a good temperature. The following diagram gives a plan for such a building:



The deeper it is in the ground the safer it will be. Some good and cheap houses of this kind are made by making a strong roof of logs and heaping the earth dug out over it several feet thick.]

SIR,—I have seen some correspondence on the subject of "Shrops" being called Shropshire Downs. Why not? South Downs are from Sussex; Shropshire Downs from Shropshire; Hampshire Downs from Hants. So long as Down wool is of more value than the longer sorts, it is well to call the attention of the community to the fact that such sheep are of a Down breed. Every buyer, or person likely to be a buyer, is not posted in the distinctive names of the various families; but all know Down sheep and what they are. Shrops are in demand because they have the special attributes of the Down breed to an extent and in a shape most suited to our pastures and to the wants of Ontario wool and mutton buyers. The affix "Downs" may be a superfluous term to the well-informed breeder or writer; but while it is instructive or explanatory to the ordinary run of farmers, let us preserve it.

T. C. P., Oxford Co.

SIR,—Will some of your numerous correspondents inform me (1) if unleached ashes will bake or harden a clay soil, if 40 or 50 bushels are applied to an acre? (2) Can a tank or cistern, with a capacity of 100 barrels, be built in a barn over the stable, that will be proof against frost, and what would be the probable cost?

N. T., St. Catharines, Ont.

[Unleached ashes will have a tendency to make your land friable and to disintegrate the particles of alumina or clay. They will also act as a manure, containing 30.9 per cent.; 7.7 do. of potash, and 2.1 do. of phosphoric acid. A tank could be built of the capacity you mention over a house, but the plan would not be feasible.]

SIR,—Would you please give me the address of the best tile makers around London, Ont.?

M. B., Chatham, Ont.

[Tile makers would do well to use our advertising columns at the proper season.]

SIR,—I send you two heads of oats taken out of a field of five or six acres on the farm of Edward Little, Esq., near Rosemont. One head was counted and it contained 365 pickles and measured 15 inches; I counted one of those sent and found 328 pickles. Can you tell me what kind of oats they are? The whole field is not just the same, but it is Mr. Little's intention to pick out about two bushels, so as to have them pure.

G. C., Rosemont, Ont.

[The specimens of oats submitted are of the Black Tartar variety, and certainly are a very splendid sample.]

SIR,—What would you advise to give adult cattle that have the scours, and when the voided substance has become quite offensive?

E. J. Y., Wardsville.

[First, give about a pint and a half of raw linseed oil as a drench; then, if bad, give about one ounce of tincture catechu, and one ounce tincture opium, in about a quart of starch or coffee, three or four times a day, according to the case; if very bad give oftener; the animal is generally very thirsty; do not give much water at a time, but often; it would be well to mix flour or oatmeal with the water.]

SIR,—One of my oxen has a lump on his throat which appears to pain him much if touched. It rose suddenly about two months ago, and after a few days matter came from the sore. Since then it has gone down a little, but there is still quite a lump, which pains him. There seems to be a scab on it now. If you could inform me what it is, its cause, and can give me a simple remedy for it, I shall feel grateful! Also, will you kindly give me a simple and effective cure for scour in cattle?

E. S., Oak Lake, Manitoba.

[It would be well to bathe the lump well with hot water, and when thoroughly dry apply a blister of cantharides one part and lard six parts. Cattle are subject to lumps around the throat often caused by a bruise. See answer to E. J. Y.]

SIR,—I would feel thankful for your opinion as to the best method of improving my meadow, as regards sowing grass seed. My meadow is low-lying, and in the spring is as much as three and four feet under water, although, as an average, one foot would be about right. The grass that grows there at present is a sort of fox-tail, very light in weight, and next thing to worthless, and in the very low places nothing but a rush grows, which is somewhat better than the former, but is far from satisfactory. I would like to know what you think of red-top or purple-top. The meadow is some fifty acres in extent, and it would be for various reasons next to impossible to break up.

W. V., Nicola Valley, B. C.

[The first thing to be done is thorough drainage. This is absolutely necessary. No profitable pasture land can be had without drainage. If the land lies on a river bottom, which every year overflows its banks, and the water remains to the height our correspondent says, there is nothing in our opinion in drainage would do but diking; but we doubt if this would pay or be feasible. However, let such grasses as red clover, alsike clover, white clover, timothy, orchard grass, Kentucky blue meadow, fescue, and rib grass be sown on the old pasture, with the application of 200 pounds of gypsum, and 200 pounds superphosphate, or the same of bone dust or guano. The seed should be sown as soon as the land is dry in the spring, and the fertilizers applied. This would give a year before any evil effects of the water again.]

SIR,—I have just returned from England, and brought with me a nice lot of 57 Shropshire sheep, having lost two lambs on the voyage. From what I saw in the course of a two weeks' sojourn among the leading flockmasters in Shropshire and other parts of England, and a visit to the Royal, of York, I came to the conclusion that those beautiful sheep are the most popular breed in England at present. At the Royal they were far ahead of all others in number, and in the qualities that go to make up a good sheep for wool and mutton they were excelled by none. I never heard them called Shropshire Downs in England; they do not admit that they are at all related to the Downs. They call them *Shropshire sheep* or *Shropshires*.

J. G., Guelph, Ont.

SIR.—I notice in the last issue of the ADVOCATE that J. A., Humberstone, asks for receipt to cure warts on cows' teats. A few years ago I had a cow with bad warts on teats. A neighbor told me to cut a potato in two, rub it on the teats, and then feed it to a pig. I did so; the warts all disappeared; I told a neighbor, who applied a potato to warts on his cow's teats as above, with the same satisfactory results. If J. A., H. or any of your numerous readers are disposed to try the receipt, it will be interesting to me to know the result through your paper. J. W. W., Port Hope.

SIR.—Could you inform me through your paper where I could procure pure Chester White pigs, about 2 or 3 months old, in Canada? also what are the famous horse beans of England called, and where can they be procured? F. S., Solmesville, Ont.

[Any of our breeders who have Chester Whites for sale would do well to use our advertising columns. Any seedsman could procure you horse beans, but they do not grow very well in this country.]

Several communications are unavoidably laid over till next issue, for want of space.

Grand Wheat Prizes.

For testing, we will send, per mail, postage paid, four ounces each of the Martin Amber, the Rogers, the White Mountain, and the Red Russian, to any enterprising person who will send us \$1.00 for a new subscriber for one year for the FARMER'S ADVOCATE AND HOME MAGAZINE. Should any prefer to substitute any of the following varieties, namely, the Scott, Michigan Amber, Clawson, Fultz, Democrat or Hybrid Mediterranean, in place of either of the first named kinds, they can do so; or if preferred, one pound of either of the new varieties instead of the 4-oz. packages of the first-named collection, will be sent; or 2 lbs. of the Scott, Michigan Amber, Clawson, Fultz, or Democrat.

N. B.—We do not sell any of these for cash; we only supply as above stated. We do not guarantee any variety quite pure, but procure the best we can from leading and reliable seedsmen.

Shipping Apples to England.

The following remarks from one of the leading men in the trade will be interesting to most of our readers. Since the receipt of the circular in this country there has been a marked decline in prices for exportation.

J. B. Thomas, of Covent Garden Market, London, wholesale importer and dealer in fruit, under date of August 2nd, has sent out a circular to his customers and correspondents, carefully reviewing the fruit prospects of the United Kingdom and on the Continent, including France, Belgium, Holland, Germany and Portugal, in which he says that "after due consideration of the whole of the facts set forth in the various reports, the impression produced and net result obtained for practical purposes is:—

1. That the prospects of the apple crop on this side are, in the aggregate, unusually promising; and that in the absence of adverse weather influences, the out-turn will, in every respect, leave little to be desired.
2. That fall shipments of American and Canadian apples to Glasgow and Liverpool should meet with fair demand at moderate figures.
3. That shipments to London, if ventured on, must consist only of those varieties which can successfully compete both in quality and condition with supplies from other parts."

The apple crop in the United States being light, there is some probability of there being a market for our apples after their home supply has been exhausted.

In the milk of some Jersey cows the cream forms thirty per cent, or nearly one-third of the whole bulk. It is so rich in cream that it is not the most healthful food for infants without dilution, though in cities there is usually a demand for Jersey milk for this purpose. For food, milk with a smaller proportion of fat is better.

The Ontario Fruit Growers' Association

Held their meeting at St. Catharines, Ontario, on the 30th and 31st ultimo. There was a good attendance of members. Among those present were Messrs. Wm. Saunders, President; Roy, Vice-President; Morris, Morden, Dempsey, B. Gott, &c. After a long and informal discussion on raspberries, the general opinion appeared to be in favor of the Cuthbert for red, and the Grigg for black. The use of stable manure and ashes was considered the most profitable.

Mr. B. Gott, Arkona, read an exhaustive paper on raspberries, their cultivation and varieties, which was listened to with much interest.

Discussion took place on the best varieties of strawberries, black and red currants.

Mr. Morris spoke of Moore's Ruby, a new variety of red currant, discovered in Rochester, very productive, and nearly as large as the cherry.

Mr. Morden, speaking of the cultivation of the currant, stated that he had found the tree system to be a bad arrangement, and considered the best policy in pruning currant and gooseberry bushes was to get rid of the old wood. He considered currant plantations should be renewed every six or eight years, as that is about the natural life of these bushes.

Mr. Dempsey found that grown in a warm, dry soil, currants matured early and sold readily at ten cents per basket, while the same variety grown on a rich, comparatively damp soil, were being picked at this date, and also sold for ten cents per basket. He considered La Versailles the best variety of red. He noticed this year a sort of rust which attacked the leaves of the black currants, destroying them and putting a stop to the growth of the fruit.

The question "Can cherries be profitably grown?" brought out several members. Some from the northern part said they could not be made to grow in their locality. One member said that varieties called the Vladimir, grown profitably in Northern Russia, would probably be suitable to the colder regions of this country. The verdict was against cherry growing.

Grape growing was considered, and Mr. E. Ashley Smith gave a lucid description of the Kniffen system of grape culture. "What varieties of apples have been found most profitable?" was decided in favor of the Early Harvest, Red Astrachan, and the Duchess of Oldenburg.

The general opinion was that Blackberries could be grown with profit.

The question of establishing local associations was deferred till the winter meeting.

Mr. Drury, M. P. P., introduced a discussion on the question of the law on Canada thistles, which he considered required considerable extension, so as to cover other noxious weeds and also to reach the disease affecting fruit trees known as black knot. He considered the only way in which this difficulty could be met would be by appointing Township Inspectors. As the law now stands there is no one who thinks it his duty to act as informer in this matter, and a certain delicacy is also felt in informing on a neighbor. Mr. Drury hoped that the Fruit Growers' Association would put an expression of opinion on the subject on record. Mr. Gott considered that this question, especially as it referred to black knot, was one of vast importance, and he would be glad to see the Legislature take action in the matter.

Fall Wheat Jottings.

Democrat and Scott are safe wheats to sow for a crop.

The "Democrat" wheat averaged 23 bushels to the acre on the Westwell Farm, near this city.

We understand that the Democrat harvested 24 bushels to the acre upon the farm of Mr. John Routledge, of London township, near London, Ont.

"MARTIN AMBER."—We still hear good reports of this wheat, both from the originator and many reliable growers of two or more seasons. Try a little.

In the neighborhood of Markham and Scarborough, York, the winter wheats are poor, except the Scott and Michigan varieties, which will yield an average of 18 bushels.

"White Mountain," from all reports, has turned out almost a failure this season, and is likely to be abandoned if it does not do better in the few cases where it will be sown again this fall.

J. L. Dillon writes from Bloomsbury, U. S. A., that Martin Amber has again proven its superiority over older varieties by its yield, and states that it only requires $\frac{1}{2}$ bushel to produce 25 to 40 bushels per acre.

"ROGERS" WHEAT.—The accounts about this variety are rather conflicting. The home-grown samples are not nearly as good as imported stock, although we think that it will improve greatly with a better season.

The "Landreth" is a new white winter wheat, introduced for the first time this season into Ontario by George McBroon, seedsman, of this city. The growers claim that it is hardy, vigorous, stiff in straw, very prolific, and less liable to rust than other varieties.

The "Finlay" wheat, which many growers and seedsmen claim to be a variety of Fultz, has done well in some parts of the U. S. A. The U. S. Department of Agriculture distributed a few hundred bushels of this wheat, purchased in Ontario. Change of soil and climate works wonders in wheat raising.

"RUSSIAN RED." Geo. Ballachey, of Brantford, Ont., sends heads of Russian Red and Fultz, stating that he does not wish farmers to be humbugged, as they are the same variety. Samples appear to be the same variety. Mr. B. is a farmer whose opinion is worthy of every attention. Wheat constantly appears under new names.

W. W., of Guelph writes: "I find that the Rogers is more liable to rust and is some days later than either the Clawson or Fultz. Last fall I sowed two bushels of it, and on harvesting I found it almost worthless from rust—much worse than the Clawson alongside of it, though both kinds were sown the same day. With regard to the White Mountain variety, there have been some very good crops grown of it in this township, but in general it is not thought very highly of by those who have grown it, and I don't believe that there will be any of it sown here this season, as it has been so badly rusted—much worse than any other kind."

Thos. Manderson writes:—The fall wheat in the vicinity of Guelph is a very inferior sample, with an exceptional good field of Scott. White Mountain and Fultz have not done well this year. Diehl is completely useless. We have heard of some good Democrat grown in Puslinch township; this is a new variety recently introduced. We have a fine piece of Rogers, a light amber color, a new variety from Pennsylvania; it seems to stand the winter well. Among the Rogers were several heads of a bearded, red chaff, red wheat, we do not know its name; it is a splendid wheat. If any of the London seedsmen have it they should advertise it in the ADVOCATE. There was a large acreage of fall wheat put in last fall, so that the failure will be the more felt. White Mountain requires a dry clay, or sharp, gritty soil, and does not require too rich ground. A Mr. Patterson, Guelph township, had over forty bushels per acre last year, and the seed we sold yielded thirty-five. We think it an advantage when the ground is very dry to roll before we drill in the wheat; it makes the earth firmer for its roots, while the earth is loose on top, and leaving nice ridges between the rows, affording protection to the young plants when the fields are bare in winter, or from the chilly winds of early spring.

English Horses at the Exhibition.

A feature of no inconsiderable interest in the approaching Industrial Exhibition will be that of the English horses which arrived at the Exhibition grounds last week. These horses were landed at Montreal on 31st July last from the steamer Ontario, of the Dominion line, and as the passage from England had been pretty smooth the animals were little the worse from their confinement. They are fine, heavy, draft stallions, six in number, and varying in age from two to seven years, and in weight from 1,600 to 2,150 lbs. Coming from some of the best English stock, and all being first prize takers at the leading English shows, they are of considerable value, and stand their enterprising owners, Messrs. Fauson & Son, of Toronto, in about \$15,000. The animals will remain at the Exhibition grounds until the Show, even if sold previously, an event which is likely enough, as several breeders have already visited them. S. & R.

Our North-West.

Professor Tanner, who is at the head of the English Institute of Agriculture, whose affiliated colleges contain some 8,000 students of that art has arrived in Canada, visited the experimental farm at Guelph, and is on his way to the North-West, probably going to Calgary.

Cattle raising in the North-west is being engaged in with energy. Many of those who have gone into it are wealthy residents of England. Several of these gentlemen came out by the Sarmatian this week. Among them is Mr. Grenfell, Deputy Governor of the Bank of England, who takes an active interest in the development of the Canadian North-west; the Earl of Latham, who with Mr. Stavely Hill and Mr. George Baird, own a ranche of 100,000 acres in the district of Alberta.

In a letter to the Winnipeg Free Press, Mr. C. J. Brydges remarks upon the increased acreage under wheat in Manitoba. In the Mennonite settlement alone, he says, the acreage under wheat is 65,000 acres: estimating the yield at twenty bushels to the acre, this will give an aggregate yield of 1,300,000 bushels.

Exhibition Jottings.

At the Centennial-Dominion Exhibit at St. John, N.B., arrangements have been made for the exhibit of a complete working dairy, similar to that shown at the "Royal of England."

Strenuous efforts are being made to induce the Princess Louise and the Marquis of Lorne to pay a visit to Guelph during the holding of the Provincial Fair.

One of the principal attractions at the Toronto exhibition will be the Bicycle races, which will be held on Monday, Sept. 17th, a lengthy programme of which has been issued, and \$210 will be given in prizes.

The extras at the Western Fair, at London, will consist of a band contest and fire works. The grounds each evening will be brilliantly illuminated with the electric light.

The Southern Counties Fair, at St. Thomas, we understand will be purely agricultural. No extra attraction being advertised.

One of the principal features of the Hamilton exhibition will be the Horticultural display. This fair has for years been celebrated for its splendid show of flowers and fruits.

PROVINCIAL EXHIBITION.—As the time for holding the Provincial Exhibition draws near entries are constantly coming in. Large entries from carriage manufacturers, both in Ganaoquo and Guelph, have been received.

Fall Fairs.

Table with columns: NAME, PLACE, DATE. Lists various fairs across Ontario from September 11 to October 15-16.

LOWER PROVINCES. Dominion St. John, N. B. October 2. Nova Scotia Truro Sept. 25, Oct. 1.

NORTH-WEST. Cartwright September 25, 26. North Dufferin Nelson September 26, 27. Stonewall September 27, 28. Mountain Pilot Mound September 27, 28. Provincial Portage la Prairie October 1, 2. West Lynne October 11, 12. Morris October 11, 12.

Fat Stock Shows. Chicago November 14, 21. Toronto December 14, 15.

Cold Frames.

Are constructed of common plank usually from 12 to 18 inches high at the back, and from 8 to 12 inches at the front, and in width according to the length of the sashes to be used. The planks are nailed to durable posts firmly set in the ground.

Rye for Early Pasture.

Just at the time when grass starts growing in spring, when stock that has been fed through the winter on dry hay, oats and corn, want a change, then is when a good field of rye proves of the greatest value.

Farming for Boys.

BY THE AUTHOR OF TEN ACRES ENOUGH.

CHAPTER XV.—Continued.

It must not be supposed that, while these interesting incidents were occurring, the plants in the two acres devoted to strawberries were standing still, or they had required no attention. On the contrary they needed even more care than when the field had been planted exclusively in corn. Soon after the blackberries had ripened, the corn was cut and taken to market, where it sold for more than enough money to pay for the plants which had been purchased. Then in August the strawberries began to send out a profusion of runners. The Rawbone had evidently imparted an extraordinary vigor to the plants, as was shown by this ability to produce so vast a quantity of runners. Uncle Benny employed the girls to clip them off with scissors as fast as they appeared. This job had to be done once a week, during the growing season; but the old man had it done thoroughly. It cost a few dollars, but then it enabled the girls to earn a little pocket-money; besides, the old man felt satisfied it would be a good investment on the small field he was over seeing.

One day when Spangler was about beginning to husk out his corn crop, he came up to where Uncle Benny and the boys were standing, with an expression of considerable anxiety on his countenance, and inquired of the old man how they expected to feed their pigs and pigeons the next winter.

"Last year you had corn," said he, "but now you've got nothing but berries."

"Why," replied the old man, "we shall feed them on your corn. We can't afford to raise corn. It is cheaper for us to buy corn than to raise it. I will take my one acre of strawberries, and next season will get as much money from it as will pay for all the corn you can raise on ten acres. You never yet had over thirty-five bushels to the acre, at a dollar a bushel; but I shall have at least eighty bushels of strawberries, and will clear five dollars a bushel from them. Now, how can we afford to raise corn? Do you think that you can afford to do so, when you are within reach of a great city market? You see, Mr. Spangler, everybody raises corn, but only a few persons raise fruit."

Spangler stood with his hands in his pockets, but said nothing, and Uncle Benny continued his lecture to an appreciative audience of four.

"You see, Mr. Spangler, it is not the quantity of land a man has, but the use to which he puts it, that makes him rich or keeps him poor. There is your 'Old Field,' which you put to growing briers, but which we put to growing berries, and you know the result. I told you it could be made to pay off your mortgage. If we had had an improved variety of blackberry, such as the Lawton, our receipts would have been three or four times as much as they were. It costs no more to raise the best than it does to produce the poorest. But we took what we could get, and what no one else would have. Still, this shows what may be accomplished when a man is determined to make the best of circumstances. It proves, moreover, that there is sometimes great value in things which careless people neglect as worthless."

"Now," continued the old man, "if you were to sell half your land, pay off your debts, invest the remainder of your money in labor and manure, and change from all grass and grain to about twenty acres in fruits, you would only have half as much land to work over, and could save money every year."

"What! buy a thousand dollars' worth of manure?" inquired Spangler, drawing his hands from his pockets, and uttering amazement at the idea.

"It would ruin me!"

"But the ruin will come if you do not," rejoined Uncle Benny.

CHAPTER XVII.

When Uncle Benny began his course of training his idea was that, as the hope of reward was everywhere admitted to be the great sweetener of toil, so, if the boys could be put in the way of accumulating a little money for themselves as the result of their own labor, it would be a powerful stimulant to exertion. His experience with them proved that his idea was the correct one. Their anxiety was now beginning to out-grow even his. Their ambition was increasing,—one wanted twice as many blackberries, another wanted a great peach-orchard, and Bill Spangler insisted that he must have more pigs, as there were not half as many as

he could sell. He said there was no more need of taking Nancy's progeny to the fair in order to obtain customers, as they came to the farm for the young Chester Whites in greater numbers than he could supply, and if one Nancy did so well, he wanted to have six or seven more of the same sort.

Their experience had shown them that farm labor and farm employments, when rightly directed, could be made very profitable, while they had already begun to save money. The getting thus far ahead stimulated them to get and to save more. But this stimulant, in Uncle Benny's opinion, was getting too strong, and he was constantly obliged to impose restraints on their ambitious projects for expansion. As to Tony King, the orphan boy, he had long since abandoned all idea of giving up the farm for a city life. Hence, he was turning his attention to how and when he should have a farm of his own. Knowing himself to be friendless, with none to aid him, it was natural enough for him to be casting about for an enlargement of the moderate profits which two years under Uncle Benny's instructions had enabled him to make and save.

Uncle Benny had been with the Spanglers some three years, and Tony was now a well-grown lad of nineteen. His manners were remarkably pleasing, his appearance was manly, and, whenever he happened to make acquaintances, he quickly became a favorite. It was no wonder, then, that, as years increased upon him, he became thoughtful of the future. The Spanglers had parents, and the parents had a farm, on which their children would always have a home. But it was very different with Tony King. He was to carve out his own fortune, and that by the labor of his own hands, not by the help of any friendly purse. His good character and moderate education were all the capital he possessed. But, if young men only knew it, such capital, carefully preserved, will gather round it all other desirable forms of wealth.

Time was passing rapidly away, and Tony was fast becoming a man. Their success in fruit-growing had been so decided that every year added to the little savings the boys had accumulated. It afforded convincing evidence to Tony's mind that fruit could be made more profitable than grain, and that a few acres, worked as they ought to be, would pay far better than a great farm only half cultivated.

"You see," said Uncle Benny, "from what you have been doing, that all wealth is the result of well-directed labor, and that fortune is not chance work. Money is the evidence that somebody has been at work,—working either with his hands or head. All that you have in the savings-bank is the result of work done on these few acres of ground. It is, moreover, a positive assurance that, if you continue to do more work, you will accumulate more money. Besides, more money thus acquired is much more likely to be kept than when made by fraud or speculation. That which comes easy generally goes easy. But after all, Tony, money is not everything in this world. Its possession has many times been known to be a great misfortune. But with good health, a virtuous family, moderate desires, a generous heart, and a life here which ever keeps in view the immortal one to come, it may be considered a great blessing. Without these, the rich man is a miserable being."

"But what," inquired Tony, "would you consider the best way for a poor fellow like me to get up in the world?"

"Well," replied the old man, "the way to wealth is about as plain as the way to market, and is open to all who are industrious and frugal, both of time and money. It has been well said that time well employed is certain to bring money, as money well spent is certain of gaining more. Acquire habits of punctuality, and you establish a character for accuracy that will give you credit; and credit is the prize which all aim at, but which too few preserve. Everybody respects a punctual man. He is sure to thrive, as punctuality implies industry and foresight. Next comes justice in all your dealings."

"Now," he continued, "you have a hundred facilities for carrying on farming successfully of which the first settlers of this country had no knowledge. Look at the splendid implements we saw at the fair, the improved animals, the low prices at which they were sold, and the vast abundance of them all. These are so many helps to success."

CHAPTER XVIII.

The three boys had now grown up to be young men, and counted as full hands on the farm. Tony King was receiving wages, and proud enough he

felt when Spangler paid him the first twenty dollars he had ever earned. Every part of the farm was therefore showing the good effects of Uncle Benny's advice and exhortation to Spangler on the management of his land, and of the increased efficiency of the boys. Spangler had become quite willing to abandon many of his old neglectful ways, the result of which was seen in the improved appearance of everything about the premises. All the foul old hedge-rows that skirted the fences had been cleared up. He took far better care of his fodder. His buildings had been repaired, even to the extent of painting the house. Then he had reformed his ways about the barn-yard. Having received new ideas touching the value of manure, he had fallen into most of Uncle Benny's plans for increasing the supply.

The consequence of all this was an immense increase in his crops, thus producing more money, and enabling him to meet the interest on his mortgage the very day it came due. His corn crops were now nearly equal to the best of his neighbors. He had also quit raising his old razor-back breed of hogs, and confined himself exclusively to the Chester Whites. More than all this, he began to believe in the superior value of fruit culture, and had gone so far as to plant a thousand peach-trees. He even thought of setting out an acre or two of the improved blackberries, and as many more of other small fruits. Uncle Benny had thus proved himself a radical reformer of a multitude of abuses.

It was interesting to the old man to note how much the comfort of Mrs. Spangler and the family was increased by this improvement in the management of the farm. Many little conveniences were now purchased which Spangler always used to say he couldn't afford to buy, because of that periodical scarecrow, the interest on his mortgage. Sundry articles of new furniture were made to supplant the rickety affairs about the house and kitchen. Mrs. Spangler and her daughters had new frocks and bonnets much oftener than before Uncle Benny's appearance among them. Then Spangler being one day at a neighboring vendue, bought a neat little family carriage, which was probably the greatest affair of all. In every other domestic arrangement there was a manifest improvement, the whole change being the result of Uncle Benny's personal effort, during some six years, to teach Spangler and his boys a better mode of farming.

The two young Spanglers had no other prospect but that of remaining to assist their father. He had more than enough for all, even when divided up into two or three shares. As they became of age, their father paid them wages, and continued to let them have a large share in the profits of the Chester County Whites and the pigeons. Their pig enterprise had proved a most profitable one, as the fact of their having taken a premium at the county fair did not seem to be forgotten over a wide stretch of country. Hence there was an extensive demand for young pigs at far better prices than for the common breeds, it having been satisfactorily proved that the Chester Whites will grow larger on less food than any other kind. For this reason they commanded a much higher price; and as a multitude of farmers wanted to have the best, so the demand continued. Uncle Benny had repeatedly told the boys that it cost less to raise the best breed than to raise the poorest. Others thought so too, and hence the calls at the Spangler farm for Chester County Whites were so constant that a great enlargement of the pig department took place, much to the profit of the proprietors.

But the case of Tony King was different from that of the Spanglers. He must shift for himself. It was known in the family that he intended to leave as soon as an opening turned up for him to buy or rent a farm for himself. They frequently talked the matter over among themselves,—where he had better locate, how much land to get, and what sort of farming he would carry on,—but no light came to guide him.

He had saved a few hundred dollars to begin with, sufficient to purchase implements, but he had none with which to buy land. As to working for years at the small wages that Spangler was willing to pay, he could not bring his mind to think of it.

The fact was now evident that Uncle Benny's exhortations for him to look upward, to aspire, had had their effect, and made him ambitious to strike out on his own land. One point, however, had been settled in his mind,—he was determined to have a fruit farm near some great market. He knew it would be difficult to hire such an establishment, and much more difficult for him to purchase. He must therefore create it, and while his fruits

were coming into bearing, he would cultivate the common crops, but would drop the latter as soon as the former became productive. Though his plans were thus clearly determined on, the great difficulty was to carry them into effect.

Uncle Benny had listened to the poor but brave fellow, sympathized with his longings, and counselled courage and patience, assuring him that all would yet come out right. Moreover, the old man entertained a strong affection for Tony, and was extremely anxious to see his favorite pupil established on some desirable spot that he might call his own, feeling sure that he would succeed. They often talked the matter over, sometimes when at work in the fields, and oftener when with the family at home.

[To be continued.]

The Household.

Country Kitchens.

In the city, where land is bought and sold by the square inch, we must take what space is allowed for kitchens and make the best of it. But in the country, where land is bought and sold by the acre, we can certainly have as much of it under our kitchen floors as is needful for comfort and convenience, and we can have our kitchens so arranged as to be pleasant rooms to work in and to live in all the year round. Somebody must live in the kitchen sixteen hours out of the twenty-four, and that somebody, whether the mistress of the family or her servant, is a very important factor in the weal or woe of the family, and it is the best policy in the world to keep her in good physical and mental condition. A pleasant, convenient, well-furnished kitchen goes a long way to do this.

Let us then have the kitchen L-shaped, facing south, with windows on the north and doors and windows on the south, so that there may be sunshine in the room the year round and abundance of fresh air, especially in the summer. Let the ceiling be high and the walls and ceiling painted some neutral tint, so they can be washed with soap and water whenever occasion requires. Let a door on one end open into the dining-room, which shall be in the main part of the house, and doors at the other end open into the pantry and the wood-house, and the floors of all these contiguous rooms be on one uniform level. Let the extension be two stories high, so that the room over the wood-house may serve as a drying room in winter, thus saving clothes from being torn by frost and wind, and pneumonia from being contracted while hanging them out, and the room over the kitchen, with the stovepipe from the kitchen running through it, may serve as a warm playroom for the children in winter. A stairway from the wood-house or kitchen may lead to these rooms.

In the kitchen we want a sink with water in and out of it, a cooking stove or range, and a large work-table between two windows on the north side or the south side of the room. These three to be in such relations with each other and with the pantry as to economize steps closely, and to leave the rest of the kitchen undisturbed. Many families use their kitchen as a dining-room, and can do so with great convenience if it is properly arranged. But if the sink is in one corner of the kitchen and the pantry diagonally opposite, and the work-table in the line of neither, there will be no clear space for the dining-table, and unnecessary steps will be required to do the work.

The pantry should be large enough to contain everything requisite to get meals withal. In front of the window in it, there should be a broad shelf under which the flour and sugar barrels may find place, and on which may rest the paste-board or bread-bowl when bread and pies are made. Ample shelf-room should be provided, and abundance of hooks to hang utensils on, and it should be so furnished that when the cook goes into it to prepare a meal, she may find everything there to do with, except such articles as have their natural place in the cellar or the refrigerator.

We have made no provision in the kitchen sketched above for laundry work, because this should have a room for itself and by itself. Part of the wood-house may be partitioned off, and be furnished with a pump and waste pipes, a stove and tubs and other necessary utensils for laundry work. Such provision saves a deal of annoyance and vexation on washing and ironing days, saves the kitchen from the steam and smell of hot and odorous suds, especially when cooking is going on, saves the

clothes from absorbing the smells of the kitchen, and more than all, saves the wear on the dispositions of both cook and laundress, or when these two worthies meet in one person, divides the wear. There should be a closet in the laundry, and in this, starch, bluing, clothes-pins, flat-irons, and the like can be kept.

Along the front of our kitchen let there be a piazza covered with vines, and at one end of it a tree to shade it in summer, under which the housewife may sit, as she prepares her vegetables or watches her bread baking, and enjoys the beauties of nature, the singing of birds, the rustling of the leaves overhead, while nothing going on in the kitchen escapes her observation.

A SOCIETY BARD.

III.

(CONCLUDED.)

It may be said with a good deal of truth that the genuineness of our feelings are in no way dependent on the genuineness of the object on which we lavish them.

Ethel Surtees had carried away the previous year, and secretly nursed for ten months, the idea that Mr. Lovett was a remarkable young man. She was a loyal and simple-hearted girl, with none of the airy coquetties or shrewd suspicions that hem round and guard the affections of more wary town misses.

We judge people, after all, by ourselves, and to Ethel burning words meant burning feeling. She had been highly educated, and had perhaps imbibed a touch of German mysticism, so that in the more than ordinary dull routine of the country vicarage it was no wonder that she recalled Mr. Lovett's passionate utterances. Ethel found in this man an escape from the humdrum which seemed to encompass her and the ordinary aspects of existence. He had more than once begged permission to visit her in the country, but it was to be feared that after the lapse of a month or two he no longer felt the necessary ardour for its accomplishment. Mr. Lovett was the self-conscious kind of man who is shy and suspicious of comment from strangers, although he had notably succeeded in overcoming any such defect in the society of young ladies. He forebore to present himself at the vicarage, and Ethel's disappointment during the dull winter increased day by day.

"Surely he will come," she said again and again to herself, with her hands pressed tightly over her eyes, in the quiet of her own bedroom. "Surely he meant what he said." She had yet to discover that she herself was supplying the sincerity which Mr. Lovett's eloquence lacked. By and by, with the spring came the invitation to London, which Ethel was unusually anxious to accept.

She had now been a month in Kensington, and her visit was drawing to a close. Mr. Lovett had been in constant attendance at Mona Lodge, and it is possible that Susie began to find her cousin inconvenient. She noticed a certain leaning on Mr. Lovett's part for private talks with Ethel, although it was not given to her to know the height or length of that susceptible gentleman's flights. Being, however, an exacting young lady, she required in her admirer an unwavering loyalty to herself, and watched with the greatest niceness their deviation from this right path.

The poet, to tell the truth, was discovering himself by this time to be in the awkward predicament of a man who wishes to make himself particularly agreeable to two women under one roof.

When talking to one he found himself unable to cope with the other. They were oil and water; one must over be at the top. Ethel he imagined himself a genuine poet; and it is worth remarking that in Mr. Lovett the man of the world has as great a contempt for the enthusiast as the enthusiast had for the man of the world.

He had been perfectly complacent in Mrs. Fillingham's back drawing-room all the winter; he had found the house convenient, and Miss Fillingham diverting in many ways; he wondered why he felt impatient now. It was as if he were somehow listening to her better, higher, and more enjoyable thing in listening to her coquettish chatter.

Ethel there was a note that answered—perhaps inspired—an exalted ardour; a sensation he may have neglected, but which he could not afford to throw away.

He recalled to mind a dusty road he had passed along one autumn day near Florence. He had been to Fiesole, and, as sometimes happens, the way back seemed both warm and long. At an angle of the road he remembered catching sight of a tall white flower, high up over a garden wall, which no dust had soiled, and no one could reach from the public way.

He thought of Ethel in some such garden. It was a higher, serener level than was given him, and heights, to men of Lovett's stamp, are especially tempting to scale. Could he live up to such levels when he had gained them, or would it fatigue him if he did? These were the questions that he asked himself as he walked back to his chambers in the starlight nights from Kensington. It is uncertain whether Mr. Lovett ever came to any exact conclusion on this point, for his actions were a good deal regulated by haphazard; but a short poem that he wrote about this time suggested his state of mind. It is to be found in a volume of his poems, published a few years since, under the title of "A Regret."

One afternoon, Susie, amiably inclined, had bidden Mr. Lovett's attendance for a drive. He had, however, in view of Ethel's tardy departure, excused himself, and contrived to meet that young lady on her walk. Of course Miss Fillingham had found it out, and upbraided him in the evening with many pouts for heartless behavior and neglect.

They had dined, and were sitting alone in the dimly lighted drawing-room overlooking the garden. Ethel had strolled out to look at the moonlight, and the other guests were playing billiards above.

"You don't care a bit for me; you do nothing I ask," said Susie. She looked extremely pretty, with her little angry flush, a dress of black displaying and setting off her round, white neck. She was surrounded with soft lights and flowers, and from without came the faint note of a nightingale.

Mr. Lovett was a gentleman of strange susceptibility. Not care? It was exactly that kind of influence for which he did care.

Drawing up his chair softly he took her small hand and said, as he gently caressed it:

"My dear child, whom do I care for if not for you?" and then bending over her and kissing her pink fingers, "dear little woman, who but you?"

The night was very still. Ethel was idling along the grass, and turned to look at the moon through the network of trees.

"Susie," she said, approaching the window, "come and look at this effect—"

She did not finish her sentence, for a pretty *tableau vivant* met her view, and the whole of Mr. Lovett's amiable assurances fell on her ear.

She turned back quickly alone. There was the little dripping sound of the fountain on the lawn and the sad bird-note from the hawthorn, just as it had been a moment before. But the scene had changed.

"There is a good deal of bathos in my poetry," she thought, while some ugly twists pulled the corners of her mouth. Then a great dizziness came over her, and she managed to creep up to her own room. She locked the door carefully, and then within the silence of those four walls she fell helplessly on the floor racked with a new great pain.

That afternoon Lovett had asked her to be his wife.

Late on the same evening Ethel tapped at Miss Fillingham's door.

"Good heavens, Ethel! what is the matter with you, and where on earth have you been all the evening? We've all been wondering where you were," said Susie; "and Mr. Lovett has been singing such a pretty song."

"My dear Susie," gravely said Ethel, whose disgust had given away to pity, "this evening I told your father I would stay some days longer. I shall be obliged to leave you early to-morrow morning."

She was no longer angry with her flighty little friend.

"Good gracious, Ethel! what do you mean? I never heard of such nonsense. I do declare you're like a ghost. For goodness sake don't go and faint. I shan't dream of letting you go to-morrow, so make up your mind to that."

"Susie, listen to me for a moment," said Ethel quietly, as she sat down beside her and took her hand. "Do you remember what friends we were once, Susie; we told each other all our troubles, didn't we? You must let me go to-morrow morning. I think I am overwrought, perhaps I haven't been quite well lately; at any rate I must get away. I couldn't stay another night in this house!"

Susie was petrified by her friend's tone. Not stay another night in the house!

"Why?" ejaculated the astonished girl, grasping her friend's arm.

"Do not ask me," said Ethel, rising and walking to the window. "I have been mistaken, that is all. Only what I want to tell you is, that I must go. I cannot see Mr. Lovett again."

"What do you mean? Why do you come to me to tell me that?" cried her angry little friend. "If you choose to watch us to-night I must tell you I shall please myself in such matters, and know perfectly how to take care of myself."

"It is true I saw you to-night," said Ethel, with her eyes fixed gravely on her friend; "but that, Susie, is not the reason for my leaving you. It is that Mr. Lovett has insulted me by asking me to be his wife."

Miss Fillingham's words failed from astonishment.

"When?" she ejaculated again.

"This afternoon. I told him I would decide to-morrow; but I have changed my mind," she added dryly. "I've sent him his answer to-night."

"I will never speak to him again as long as I live!" cried Susie, storming up and down the room. "He pretended to like me, and tried to make me like him back again, and I have been so silly, so silly. Ethel, it is not you who shall go, it is Mr. Lovett who shall be sent about his business. John shall refuse to let him in the very next time he calls."

And Miss Fillingham kept her word.

As to Mr. Lovett, he considered that fortune had played him an ugly trick. But the world is wide for consolatory purposes, and perhaps the affair in a measure assumed picturesque proportions before he penned his next lyrical regret.

Miss Fillingham married a rich young stock broker the following autumn, and a portrait of her boy, now ten years old, was much admired for his handsome black eyes and Velasquez suit, in the Royal Academy last year. Ethel lives in the country; a grave, sweet lady, with that look in her smile as of one who has known a great sorrow. They say she writes her father's sermons, and has a pocket full of bou-bons for every little child to be found for miles around.

Is this too commonplace an ending? Is there too much prose in the simple fulfilment of simple duties in a life that has ceased to look forward, at any rate on earth?

There was a time when Ethel would have thought so.

A modern writer, who seems to have searched the secret places of the human heart, has finely pointed out there is a peace of surrendered as well as of fulfilled hopes—a peace, not of satisfied, but of extinguished, longings. And this lot, hard and sad as it may seem to men and women of the world, brings a reward little expected, even by those to whom it comes.

All crushing sense of pain has gone out of Ethel's life, but there are feelings which she oddly associates with the sound of a splashing fountain and the warm air of June evenings, which have prevented her making any more experiments of an emotional kind. [All the Year Round.

THE END.

A well-known Bishop, during the exercise of his official duties, was once quartered upon the wealthiest resident of a certain village, whose wife chanced to be away from home. He is withal a slim man, and on this occasion, when his host enquired how he had slept, and hoped he had passed an agreeable night, he answered with some vehemence, "No, I did not; I passed a very disagreeable night indeed!" The bishop departed, and when the wife of his host returned she naturally enquired who had been to the house in her absence. "Bishop P—," said the husband. "Bishop P—!" exclaimed the good woman. "And where did you put him to sleep?" "In the spare bed, of course." "In the spare bed!" shrieked the horrified matron. "Why, I put all the silverware under the mattress before I went!"

Minnie May's Department.

MY DEAR NIECES.—This month I give you a brief description of the annual trip taken by the Ontario Press Association, of which I was a participant. The trip chosen this year was, by the suggestion and kind invitation of our Quebec brethren, to Quebec and the far-famed Saguenay. The party, numbering about one hundred, started down the St. Lawrence from Montreal by steamer, on Tuesday evening, Aug 7th. All was confusion on board at first, until berths were secured and all had partaken of supper. After spending a pleasant evening in renewing the acquaintance of those we met last year, we sought our respective berths. We awoke in time for the lovely view as we neared the quaint old city of Quebec; the sun shone with a warm, yellow light on the Upper Town, while away off to the south and east and west wandered the purple hills and the farm lit plains in such dewy shadow as would have been enough to make the heaviest heart glad. The band which was to accompany us down the Saguenay, was playing cheerfully to welcome us; the members of the Quebec Press Association and their ladies were waiting on the wharf; whilst Mr. Levasseur, the president, read an address of welcome. By his efforts he placed the party under the greatest obligations; having, with Dr. Dionne, the indefatigable secretary, arranged everything for our trip. The attentions of these gentlemen were unremitting, and their genial manners, so full of mirth and vivacity, endeared themselves to all. But it would take too much time and space to mention the names of all that kindly entertained us, and to whom we were indebted for valuable services during the trip, and whose names will never be forgotten. The next step was from the Montreal steamer on to the steamer "Union," which was brought alongside of us to take us down the Saguenay. She was tastefully decorated from bow to stern with evergreens, flags and mottoes of welcome, and the tables, embellished with flowers, were set out with all the substantial of modern civilization—in fact, everything was done that could possibly enhance the pleasures and comforts of our party. By nine o'clock we were off for the Saguenay.

As you leave Quebec, with its mural crowned and castled rock, and drop down the stately river, you are abreast the beautiful Isle of Orleans (21 miles long) whose low shores, with their expanses of farmland, are still as lovely as when the wild grape festooned the primitive forests and won from the easy rapture of old Cartier the name of Isle of Bacchus. Early in the afternoon we reached Murray Bay. The tide, which rises fifteen feet at Quebec, is the impulse, not the savour of the sea; but at Murray Bay the water is salt and the sea bathing lacks nothing but the surf, and hither resort in great numbers the tourists, who fly from their cities during the fierce, brief fever of the northern summer. The sojourners and habitants thronged the pier, as if the arrival of the steamboat was the great event of the day. That afternoon they were in unusual force, having come on foot and by omnibus and *caleche* to witness the arrival of the knights of the quill. Going ashore we were conveyed in *caleches* to the village, about a mile distant, where, in front of one of the large hotels, Judge Routhier read an address of welcome, and after our President, Mr. Tye, had responded, Mr. Cimon, M. P., invited the excursionists to partake of refreshments provided by the people of the parish.

Leaving Murray Bay, our steamer turns southward, and a two hours' voyage brings us to Riviere du Loup, where we make but a short stay and pass on till we reach Tadousac. Here, into the vast, low-walled breadth of the St. Lawrence, a dark stream, narrowly bordered by rounded heights of rocks, steals down from the north, out of regions of gloomy and ever-enduring solitude. This is the Saguenay. It had now grown dark, but we were assured that the next day we should see the beauties of this river on our return trip, so we left the deck and the lights of Tadousac to blink and fail behind us, and entered the saloon and were soon merrily engaged in dancing, singing, card-playing, etc. We were well supplied with music, having the A. Battery band from Quebec on board, also a piano and many good performers. The evening soon sped, and the next morning we found ourselves at Chicoutimi, the head of navigation for

the larger steamships. The long line of sullen hills had fallen away, and the morning sun shone warm on a very lovely landscape. Although it was only seven o'clock when we landed at Chicoutimi, hundreds had come to welcome us, and about seventy covered buckboards were waiting to take us for a drive of twenty-seven miles. We were presented with another address, after which we paid a visit to His Grace Bishop Racine, a pleasant old gentleman at the college. After admiring the fine large church and college, we walked a short distance to the residence of Mr. Gange, M. P., who had provided refreshments for the party prior to their leaving for Grand Brule. We now took the buckboards. These buckboards are very unlike our vehicles of the same name; they have four wheels and a nice covered top, carry four, and are very comfortable rigs; as our drive was a long one only three were allowed in each carriage, for they drive but one horse. The drivers were French Canadians, most of whom could not speak a word of English, and my slight knowledge of the French language was of no avail, as the only answer I could obtain from our driver was a shrug of the shoulder; of course all the French ladies and gentlemen who accompanied us from Quebec could speak English fluently. Our drive was through a very fine part of the country; the roads on either side were grown thick with wild flowers, raspberries and huckleberries, and here I might mention the great amount of huckleberries that grow on the Saguenay, and the peculiar way they are boxed for Quebec, Montreal and places west: they are all shipped in coffin-shaped wooden boxes. At first, on seeing them, I feared they were losing the whole infant population down there, and felt much relieved when I was told they contained huckleberries. After a rather long drive (15 miles) we reached Grand Brule, our halting place for a couple of hours. Here a grand banquet had been prepared, the municipal councils of Chicoutimi and Saguenay having voted a large sum of money for that purpose; there were toasts and speeches, and Saguenay having voted a large sum of money for that purpose; there was a capital affair, and passed off with enthusiastic enjoyment. Again in the carriages we drove to Ha Ha Ba to meet our boat which had waited there all day. The steamboat wharf was all alive with the tourists and children selling red raspberries and huckleberries in all manner of birch-bark canoes, and goblets and cornucopias. Soon the boat was moving down the river, and every one was alive to the scenery; the procession of the pine-clad, rounded heights on either shore, began shortly after Ha Ha Bay had disappeared behind a curve, and it hardly ceased, save at a point, before the boat entered the St. Lawrence; now and then an island, rugged as the shores, broke the long reaches of the grim river with its massive rock and dark evergreen. But no rocks among all those whose rough and ragged edges repulse the waters which caress them, and whose frowning tops overhang the Saguenay, covering it with their shadows, equal in strange and portentous majesty Capes Trinity and Eternity. The rumor of their approach soon spread among the passengers, and they began to assemble at points favorable for the enjoyment of the spectacle. The sun was fast declining in the western sky, throwing such a delicate, pale light upon the scene. The air was delightful, and all nature seemed happy. Suddenly the boat rounded the corner of the three steps, each over five hundred feet high, in which Cape Trinity climbs from the river. It is sheer rock, sharp edged, cut clear as though done by some mysterious instrument of nature, and stretches upward with a weary, effort-like aspect, for eighteen hundred feet in the air. At the foot of Cape Trinity the water is of unknown depth, and it spreads a black expanse; whilst in the background, where the Capes Trinity and Eternity rear their bare and rugged heads, nestles a small bay in which vessels of all sizes can find shelter. Presently one of the boat's crew placed before the passengers a bucket full of pebbles, and the man said, "Now, see who can hit the cliff. Its further than any of you can throw, though it looks so near," and I was astonished that none could reach it, for it seemed so very close, and suddenly felt an irresistible longing to try my chance. Now, would it not surprise you if I say my pebble struck against the cliff, or even came the nearest? But no, I must adhere to the truth and say it only fell nearest the boat. Here we had a grand echo; the whistle of the steamboat was sounded, a shrill cry awakened and leaped from valley to valley, from ravine to ravine, and ran like a long shiver down the agitated sides, reverberating and rebounding in the hollows, till, softly and gently, it died away in

some narrow hollow in the indistinct distance. Cape Eternity is beside us; it is yet loftier than the sister cliff, but it slopes gently backward from the stream, and from foot to crest it is heavily clothed with a forest of pines. The woods that hitherto have shagged the hills with a stunted and meagre growth, showing long stretches scarred by fire, now assume a stately aspect, and assemble themselves compactly upon the side of the mountain, setting their stems one above another, till the summit is crowned with the mass of dark green plumes. We again soon entered the St. Lawrence. A short stay was made at Tadousac, but we did not leave the boat till we reached Riviere du Loup, about half-past one. We then took carriages for Cacouna, the far-famed watering-place, and put up at the St. Lawrence Hall for the rest of the night. Next morning we drove, after breakfast, to Fraserville and Riviere du Loup, visiting the principal places of interest. After the drive a lunch was served to us in Fraserville, Sir John A. Macdonald being among the guests. The Premier has a summer residence in Cacouna, and usually spends about three months there every year. The luncheon passed off splendidly, notwithstanding the attentions of the French waiters, who served us to everything but what we asked for. I could relate many amusing incidents, but space will not allow. The band played at intervals during luncheon, and toasts and speeches followed. We next went to the station of the Intercolonial Railway, where A. R. McDonald, Esq., Superintendent of the Intercolonial Railway, Riviere du Loup, had a special train in waiting to carry the excursionists to Point Levis. The engine and cars were beautifully decorated with evergreens and gay flags, and as jolly a party as ever travelled were soon rolling along at the rate of sixty miles an hour. At the Chaudiere Junction or Curve, we were kindly given a dinner by the railway authorities. From there we rode a short distance further to Point Levis, opposite Quebec. We crossed on the ferry, and entered dear old Quebec about nine o'clock Friday night, August 10th. On our grand reception in that city and Montreal, I will dwell next month.

MINNIE MAY.

The Saguenay River.

There is a wild Canadian land
The Saguenay pours out its tide —
A dark, tumultuous, savage stream,
Whose boiling, raging currents glide
With matchless speed and sullen roar
Downward to ocean's rock-bound shore.

With eddying whirl, with sudden shoot
Its fathomless abyss sweep,
Now o'er a hidden shoal or bar,
Now o'er gigantic ledges deep;
So, ever with a pallid haste
The seaboy speeds across its waste.

Dark tales, weird tales, of wreck,
Of woeful horrors, men relate,
Of its immeasurable depths,
Of great ships hurried to their fate
Of dangerous rocks, where tempest-tost
Brave men were in vast whirlpools lost!

So with stern awe the seamen pass
Within the iron-bound headland's sweep,
That guard the portals of the stream,
A granite gateway to the deep.
Across its tides are shimmering mists,
Huge, spectral phantoms, gray and grim,
That hang like shadows o'er the cliffs,
And over gulch and gorges swim.

Fierce, gushing winds expand their wing
Cold as the blasts of Arctic shores;
They shake the solid granite walls
And the lone pine that o'er them soars
The place is like some funeral vault,
For all is barren, wild and bleak,
The inky waters dusky still
With shadows of the soaring peak.

On either hand two rugged capes.
Grim Trinity, Eternity!
In savage grandeur seem to frown
On sailing ship and weltering sea;
Little of verdurous life may cast
A smiling bloom across their side
Nor birch nor fir may drape the cliff,
Or cascade plunge its foamy tide,
For all its awful solitude,
Boom Nature in her fiercest mood!

ISAAC McLELLAN.

"Three centuries ago, Jacques Cartier, the bold investigator, sent a boat's crew to explore the penitralia of this mighty river, and they were never heard of afterward. What wonder, then, that for subsequent decades of years it should have been investigated with a weird and supernatural character."—[Charles Hallock's Fishing Tourist.

Answers to Inquirers.

ADDIE.—She should sign her Christian name as Mary Smith; her cards, of course, would be Mrs. Smith, or Mrs. John Smith.

DORA.—Rub your face well night and morning with a flesh brush; it will do much towards removing the black specks you speak of.

M. B. C.—Transplant your Oleander from the water to a pot containing good soft loam, and keep it in the shade for a few days; water sparingly.

Sara asks how to pickle cauliflower. — Choose such as are firm; cut away all the leaves and pare the stalk; pull away the flowers by bunches; steep in brine two days, then put them into hot pickle.

W. E. J. asks why Black Monday is so called! A memorable Easter Monday in 1351 was very dark and misty. A great deal of hail fell, and the cold was so extreme that many died from its effects. The name afterwards came to be applied to the Monday after each year. "My nose fell a bleeding on Black Monday last."—SHAK.

SUBSCRIBER.—Davy Jones is a familiar name among sailors for Death, formerly for the evil spirit who was supposed to preside over the demons of the sea. He was thought to be in all storms, and was sometimes seen of gigantic might, showing three rows of sharp teeth in his enormous mouth, opening great frightful eyes, and nostrils which emitted blue flames. The ocean is still termed by sailors "Davy Jones Locker."

BUN.—Should bread be cut or broken, or bites taken from the half slice? **Ans.**—At dinner, bread is usually broken into convenient pieces which may then be bitten, or pieces small enough to place in the mouth may be broken off while the bread lies on the table. Bread is not put on the plate at dinner, because the gravies and sauces would moisten it unpleasantly, therefore it is kept beside the plate, and of course one could not cut it without risk of damage to the tablecloth. At breakfast or tea, bread may be placed on the plate, and cut into convenient pieces. It is not in good taste to crumble bread continually during a meal, occasionally placing small pieces in the mouth, but to take a small piece once or twice is quite proper. To do so often would appear fidgety, and also probably leave an unseemly mass of crumbs.

N. E.—1. The best man at a wedding undertakes all the arrangement as to securing the minister, music, church, &c; orders carriages, and disburses fees for the bridegroom, who, of course, provides the money, but is left free to attend to his bride, while his best man attends to business matters for him. It is no part of the best man's duty to provide bouquets or presents for the bridesmaids. The bouquets in England are provided by the bride's father, in America sometimes by the bridegroom. The bridegroom may, if he wish, give the bridesmaids presents of jewelery as souvenirs of the happy event; but as these are costly, they are often omitted by those of moderate means. The best man should of course give the bride a wedding present, but that is the only gift he is called upon to make. 2. The bride drives to church in a carriage with her father or other relative, and this carriage, as well as that for the bridesmaids, should of course be provided by the bride's friend. The bride returns from church in the groom's carriage.

Recipes.

CIDER JELLY.—Select good cider apples, run them through the cider-press, and put the cider on immediately, and boil rapidly until it forms a firm, transparent jelly. It should not stop boiling a moment. Test by dropping on ice or into very cold water.

SWEET APPLE PICKLES.—Sweet apples make delicious pickles. Peel and quarter them, boil them until tender in vinegar and water; to one quart of vinegar add two pounds of sugar; heat the vinegar and dissolve the sugar in it; add cloves and cinnamon, and pour over the apples while hot.

MARMALADE.—Select very ripe fruits—grapes, crab-apples, or quinces. Cut the fruit, having a core in halves and stew until tender in water enough to cover the bottom of the kettle; strain through a fine colander or sieve, to remove the skin and seeds. For each pint of pulp allow a pound of sugar and boil half an hour, stirring constantly. Spice may be added if desired. The marmalade should be firm and hard when cold.

APPLE TAPIOCA.—Pare six or eight apples—remove the cores, leaving the apples either whole or in halves. Add a very little hot water, cover closely, and cook quickly till they will cut with a spoon. Put them in a dish and pour over them a cup of tapioca cooked just as for the lemon pudding, but with the juice of only two lemons and not any of the yellow rind. Set in the oven for ten or fifteen minutes, serve cold or warm with a rich cream and sugar.—[Christian Union.

AUTUMN LEAVES.—Maple and oak are most desirable; sumac and ivy must be gathered after the first slight frost, or the leaflets will fall from the stem. Ferns may be gathered at any time. The leaves when gathered should be placed in a large book; this may be made of common newspaper with past-board covers. Immediately after gathering take a moderately warm iron, rub white wax over it, and apply to the surface of each leaf. Do not press the leaves with the iron too long, or they will become perfectly flat. Very pretty transparencies are made by placing a bouquet of autumn leaves between two pieces of bobinet lace, which are kept in shape with bannet wire, and bound with bright-colored ribbon. A bird cage of autumn leaves with a stuffed bird in it is a pretty ornament for a winter room, though a live bird in a real cage would be in some respects more desirable.

INDELIBLE MARKING INK.—A correspondent of the *Pharmaceutical Journal* recommends the following formula: Phosphate of manganese one ounce, muriatic acid two ounces, anthracene four drachms, chromate of potassa two drachms, water two drachms, sufficient gum arabic. Dissolve the phosphate of manganese in the muriatic acid; to the solution add the anthracene and the bichromate, dissolved in the water, and lastly, enough gum arabic to thicken the liquor. The ink, it is said, can be used with any pen, and is more stable than silver combinations, especially in the presence of the chlorinated compounds now so frequently used in washing.

How Austrian Ladies Learn to Cook.

The Austrian lady of station who does not know how to cook, one may almost say does not exist. Every detail of the cuisine she is acquainted with. A story is told by Austrian ladies of another, who, having neglected her education, allowed, at a great dinner party she gave, two dishes of the same color to be served in succession, a fault for which she was hardly to be forgiven. The princesses of the royal household attend a course of lectures from a "chief," entirely upon the order of serving. Young ladies do not learn the art of cooking at cooking clubs, or from public lessons, as here in America, and they rarely learn in their own kitchens. It is the custom to go to some great house, the house of a princess or at a very rich banker, where there are famous "chiefs," from whom they learn. When a "chief" engages to cook for a great house, he stipulates that he is to have the privilege of teaching as many young ladies as he chooses. These young ladies need not even know the mistress of the house, and they make their arrangements with the cook only.

For a course of lessons lasting through the winter, each pupil pays the cook about thirty gulden, about \$15. This includes instruction in every particular. If a banquet is to be given, a grand breakfast or an elaborate supper, the young ladies are notified, and are there to see the dishes decorated and to learn the order of serving. They watch every process. Were you to descend to a kitchen at such a time you would no doubt find these girls suffused with blushes, for these lessons always foretell marriage, and are the last and finishing touches of a maiden's education. But it would be a breach of etiquette for any member of the household to trespass in that department, which belongs to the cook and his noble young pupils. Since young ladies must be in the dining room the selves on such occasions in their own households, it follows that these processes they cannot watch at home, no matter on how grand a scale they are. And so in Austria all noble young ladies learn these things in another kitchen than their own.

Gleanings from Old Letters.

BY FANNIE FENTON.

Where marriage is in the Lord, home is akin to heaven. Even in this world there is bliss; I can speak from experience, though I would not mention to another what belongs alone to our dear pleasant home on the hill-side, yet for the encouragement of one naturally desponding, I will say, you can make that place where love has placed you, one of the dearest spots on earth; a place where your companion will delight to be, where he will delight to bring his friends, and let them enjoy the society of those dear to his heart. In order to do this

"Let love through all your actions run,

Let all your words be mild."

Make your delight with those dearest to you, and joy shall be in your halitation.

I never for a moment feel it a privation to stay at home with my children. I am happy in them; I watch them expand, from the time I see them until they come to maturity. My life-work is in my family; and I expect to spend and be spent for them, until the Master shall say—"It is enough, come up higher," and then with my body will I resign my work, trusting that if I have been faithful, others will complete what I have been unable to finish, and I shall reap my reward "where the wicked cease from troubling, and the weary are at rest."

Our friend Emma, who left school at the time we did, lives near me. We were married the same year. We often visit in each other's houses. She keeps her real help, while I, with the help of my children, get along alone. She is almost always in trouble. One girl will stay but a little while, before she gets in a pet and leaves her; another will steal, and be out so much nights, and bring such a class of young men to the house that she has to dismiss her; and so it goes with her nearly all the time. I try to make my work pleasant to my children so they will love to be engaged with me. Even my two little boys do a great many things in the kitchen to help me, and then I sometimes go out and ride, work, and play with them; and they enjoy it as well as I do to have them assist me in the house. My daughters know how to do many kinds of easy work, so that when I am kept in the parlor with company, or am called away for a day or two, the home machinery, with their father at the head, moves as harmoniously as when I am present. If you could see the difference between my happy home, where we do our own work, and the home of Emma, you would not wonder that I prefer to do without hired help, while we are able to.

Women and Sleep.

Women sleep by far too little. Sleeplessness is one of the most fruitful causes of the paleness and nervousness so characteristic of American mothers. You will excuse us, sir, but permit us to ask whether your wife is not still busy with the care of your family six hours after your day's work is done? And then, when your children cry at night, don't you turn your lazy two hundred pounds for another good sleep, and let that little, thin, pale wife get up and worry with the little ones? And now, forsooth, you wish to know whether it is not bad for her to lie till eight o'clock in the morning.

The Use and Abuse of Bathing.

A physician gives general rules for bathing as follows: "A warm bath with liberal use of castile soap, is best for cleanliness, and night the best time. Twice a week is often enough. Too frequent warm baths debilitate the system. A cool sponge or wet cloth bath should be taken daily for its tonic effect, and always in a warm room. If strong and vigorous the best time is the morning; if not strong, the cold bath had better be omitted and the tepid substituted. After exercise, if greatly fatigued, take no bath, but rub down vigorously with a dry towel. If thoroughly warmed up but not tired, take a tepid sponge bath standing. Never take a tub bath, except when bathing for cleanliness. A warm shower bath followed by a cool sprinkling is preferable to a cold bath after exercise. Vigorous exercise renders Turkish baths wholly unnecessary; those should be reserved for medical cases. Skin disorders are frequently caused by excessive bathing and the use of too much soap. Although general rules for bathing could be given, every man must be guided by his own physical condition and his occupation.

Oliver, Ditson & Co. please accept thanks for a roll containing seven good pieces of music.

Uncle Tom's Department.

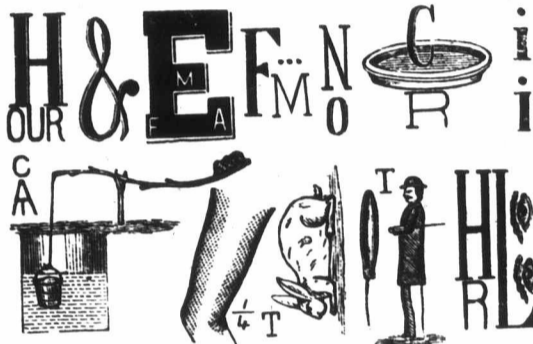
MY DEAR NEPHEWS AND NIECES,—Year after year, from city and country, from office and farm, from the study and dairy, comes the cry of wearied thousands for rest—rest of mind, of body, for a breathing space in the hurried race of life, when we may lay aside our anxious cares and troubles and in some retreat forget the "strife of men and creeds." Like many others, your Uncle Tom has been glad to snatch a week or two from his duties to recruit himself before the press of work comes on. The problem which I had first to solve was how to spend the time at my disposal. Happily, I was relieved from any difficulty by some friends who were at this time forming a camping party for Muskoka, and who invited me to join them. Delighted with the idea, I readily accepted the invitation, and it is with the intention of briefly describing my trip that I write you this letter. Taking the train at Toronto at 7.45 a. m., after a pleasant run we reached Gravenhurst about 1.30 p. m., when we found the steamer Nipissing awaiting us at Muskoka wharf. In a few minutes we were "all aboard," and with the pleasant cry, "cast off," we found ourselves starting on a trip through some of the prettiest scenery in Canada. The lakes of Muskoka are fast becoming one of our most popular summer resorts. The beauty of the scenery, the free, bracing character of the atmosphere, the fishing and shooting, all combine to attract to this charming country more and more of the people of lower Ontario and elsewhere. The scenery is considered by many to be superior to that of the Thousand Isles, and certainly in rugged grandeur and primitive appearance it stands alone. The lakes are dotted with islands of all sizes, in many cases were masses of rock, but generally covered with very prolific vegetation. In and out of these we glide, new beauties and wonders meeting us every moment. Now we suddenly round a point and find a beautiful sheet of water beyond; now we make direct for the centre of an island, without any apparent outlet, when, as we almost expect the boat to be dashed upon the rocks, we turn quickly down a narrow passage and are free. Thus journeying, after a pleasant run of two hours, we enter the Indian River and arrive at Port Carling, which is situated at the junction of lakes Muskoka and Rosseau. Though not itself noteworthy for beauty, the Port has near it perhaps the most beautiful part of Lake Rosseau, and in consequence most of the islands in the vicinity are held by gentlemen from Toronto and Hamilton, who have erected plain, neat houses on them for summer use. It was a pleasing sight, as we steamed into the lock, to witness the numbers of sun-browned, happy faces of tourists in camping costume, who had rowed into port to see the boat come in and get their letters and necessary provisions. But soon we are off again, and after an eventful sail of fourteen miles, reach Rosseau, at the head of the lake of the same name, and the most important place on the three large lakes. But my young nephews are eager to hear how I liked camping out. Let me give you an idea of how we spent one day. There were nine in the party, which we divided for cooking purposes into three divisions, who prepared the meals in their turn. The three upon whom the duty of preparing breakfast devolved, sometimes arose before the rest, but frequently some of the party would go off before sunrise for a few hours' fishing. Before breakfast we would all take a plunge into the cool waters of the lake, and after our meal we usually went off on an excursion to some point of interest, well provided with fishing tackle, guns and ammunition. A cold lunch in the middle of the day satisfied our bodily wants, and on returning to our camp in the evening, three more of the party busied themselves in preparing a hot dinner, while the rest indulged in another bathe or set the tents in order for the night. A beautiful moon-lit evening would call us out upon the water, and as some of our party were musically inclined, and had brought with them a stringed instrument and good voices, we made the night merry with our songs, but whether to the terror or happiness of our neighbors I will not venture to say. "To the tents," was the next cry,

and rolling ourselves up in our blankets, on a hard bed of fern leaves, underlined by soft granite rock, thoroughly tired though we might be, yet cheerful and happy, we were soon in as sound a slumber as if we were

"Resting weary limbs at length on beds of asphodel." Days spent like this soon sped quietly by, and our two weeks of vacation were gone all too soon. Were space allowed me, I might enlarge on our fishing and shooting, on some of the points of especial interest in Muskoka, and from my own experience, give some directions as to preparing a camping expedition, but these points must be reserved for some future letter. Suffice it to say, that Uncle Tom urges his friends who have a taste for camping to try Muskoka, and they will not be disappointed. One important point to many is the cheapness of the trip. The cost of a ticket to Rosseau and return from Toronto is only \$6.00, while living in Muskoka is the cheapest possible. If a party of seven or eight is formed, the cost of procuring one or two boats, tents, and camping outfit is comparatively trifling for each. Thanking you for your many letters. UNCLE TOM.

PUZZLES.

1.—ILLUSTRATED REBUS.



2.—RIDDLE.

Two prepositions find,
A pronoun in the middle,
Put them together and you will find
An answer to my riddle.

GEO. W. FINNAMOR.

3.—DIAMOND PUZZLE.

A consonant, a color, a fast running horse, a part, an evil spirit, a verb, a consonant.

MAGGIE F. ELLIOTT.

4.—TRANSPOSITION.

Ubt ioslofh arslotm lsilt ersupu lseaf psiahuspe
ni apecl fo uret a nahipeaps ew ilot ot dnif hiwch
lsilt usersups su keli teh niwd.

MAGGIE F. ELLIOTT.

5.—BEHEADINGS.

My whole is a pronoun, behead and I am a binding, behead and transpose and I am a pronoun still.

My whole is a manger, behead and I am a bone.

MAGGIE F. ELLIOTT.

6.—BURIED TOWNS.

He had a pet rat that could dance to a tune.

He said he made no noise.

M. F. ELLIOTT.

7.—ENIGMA.

My first is in maple, but not in beech.
My second is in nut, but not in beech.
My third is in lily, but not in daisy.
My fourth is in bishop, but not in lazy.
My fifth is in ear, but not in thigh.
My sixth is in bread, but not in pie.
My seventh is in rancid and also in sour.
My eighth is in yeast, but not in dower.
My whole is the name of a tree.

AGNES MAUD CALDERWOOD.

Answers to August Puzzles.

- 1.—Baldhead.
- 2.—Class, lass, ass, as.
- 3.—Dover Bay.
- 4.—Eye.
- 5.—Errors like straws upon the surface flow; he who would search for treasures must dive below.
- 6.—Time.
- 7.—

H	A	E
A	B	E
V	E	A
E	L	L
- 8.—Be it ever so humble,
There's no place like home.

Names of those who have sent Correct Answers to August Puzzles.

Jas Watson, Salena Alexander, Addie V. Morse, Mabel J. Alger, Rosa E. Dickens, Fanny Burton, Adelbert Kating, S. E. Miller, Torrance Purvis, R. Kingston, Wm. B. Wark, Geo. Cookman, H. Louisa Tomkins, Robt. J. Risk, Arthur Foster, Robt. Wilson, Sarah M. Brett, R. P. Wilson, Fred. D. Rose, Meta, Maud Dennee, Agnes Maud Calderwood, Maggie F. Elliott, George W. Finnamor, Ellen D. Tupper, Tom Morrison, J. L. Greenfields, Minnie Atkinson, Bessie Ellwood, G. F. Gordon, E. Marion Godfrey, Robt. Weeks, Gussie Henderson, Ella Montgomery, T. I. Jarvis, Mary Taylor, Minnie Hartley, Frank Marshall, Louisa A. McBride, G. Katie Moore, Elmon M. Moyer, Mary B. Currie, Charlie Fleming, Minnie Tegart, John Wm. Forbes, Henry Stone, P. Boulton, Esther Louise Ryan, Harry A. Woodworth.

No Difference.

The other evening at a little dinner party one of the guests, the younger brother of an English nobleman, expressed, with a commendable freedom, his opinion of America and its people. "I do not altogether like your country," said the young gentleman, "for one reason, because you have no gentry."

"What do you mean by gentry?" asked another of the company.

"Well, you know," replied the Englishman, "well—oh, gentry are those who never do any work themselves, and whose fathers before them never did any."

"Ah!" exclaimed the interlocutor, "then we have plenty of gentry in America, but we don't call them gentry—we call them tramps." A laugh went around the table, and the young Englishman turned his conversation into another channel.

After the Harvest.

BY SIMEON CLARK TUCKER.

The wonders of harvest are manifold
As Syblin words from the Sphinx of old,
When over the meadows the sheaves are rolled,
The barley like silver, the wheat like gold;
But the darkest riddle of life is told,
When love, like the grain, for a price is sold!

Janett and I with the reapers wrought
As a lowly lad and a lassie ought,
When little is said, but much is thought;
What did I garner but sorrow? naught!
As over the meadows the sheaves we rolled:
And barley was silver and wheat was gold!

She was a woman, wondrous fair,
A score of summers had sunned her hair:
My lips were beardless, my brown cheeks bare;
For sixteen seasons had wrought no care
If barley was silver, or wheat was gold,
Or love, like the grain, for a price was sold!

This was the way my love was won—
She turned to me when our task was done,
As ripe grain turns to the glowing sun
Before the harvesting is begun!
A riddle, alike to the young and old
When barley seems silver and wheat pure gold!

We kissed! before but a mother's kiss
Had blended with mine, but this, Oh! this
Discovered and filled my soul's abyss
With life's best vintage, a lover's bliss!
But the story of harvest will never be told;
And the wonders of loving are manifold!

Next day I wrought in the fields alone,
The heart in my bosom a blood-red stone—
For I heard the winds to the stubble moan,
"The lord of these lands has wedded his own!"
When love like the grain for a price is sold
No barley seems silver, no wheat like gold!

It takes an Irishman to turn a compliment. When he saw Jones, after having met the latter with Mrs. J., Pat McFlaherty said: "Ye are mooch the younger than yer wife, sur." Presently he met the wife, and remarked: "The idea of such a young woman marrying Mr Jones!" The next day he met them together, but he wasn't at a loss for blarney. "Ach," he exclaimed, "ye are both of yez too young for aich other."

Correct
es.

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Geo. Cook-
sk, Arthur
ett, R. P.
d Dennee,
F. Elliott,
pper, Tom
Atkinson,
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Ella Mont-
innie Hart-
le, G. Katie
rie, Charlie
m. Forbes,
uise Ryan,

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Little Ones' Column.

The Rescue.

"I never thought there'd be so much fuss about a kitten," was the remark I heard as I approached the rustic bridge near the foot of my lawn, to see what engaged the attention of the little people who were intently watching something in the stream below.

Dick Ramsey was the speaker, and the tone was a surly one, though Dick was not a specially surly fellow.

"What is the fuss you complain of, Dick?" I asked.

Dick looked somewhat abashed, and his sister Annie answered quickly:

"Please, auntie," (all the children in the neighborhood call me auntie); "Dick and Joe Somers found a little black kitten, and Dick said it was bad luck and threw it over the bridge to drown it, and Joe was running considerable risk himself of following the poor little kitten into the stream. He had reached an abutting point a little way below the bridge, and here, sustaining himself by holding on to a rather slim branch, he was trying to reach kitty with another. I induced Dick to run up to the gardener's cottage for a board, and soon by our united efforts we landed the poor little thing, frightened, wet, but otherwise unharmed, on the grass, and Annie and Maggie were made happy."

"Now, boys," I said, "what could induce you to try to drown that poor little kitten?" "Just for fun," said Dick. "Did it not occur to you that it was very cruel?" I asked. "We did not think about that, Auntie," said Joe, "but we will another time. We always plague cats, you know."

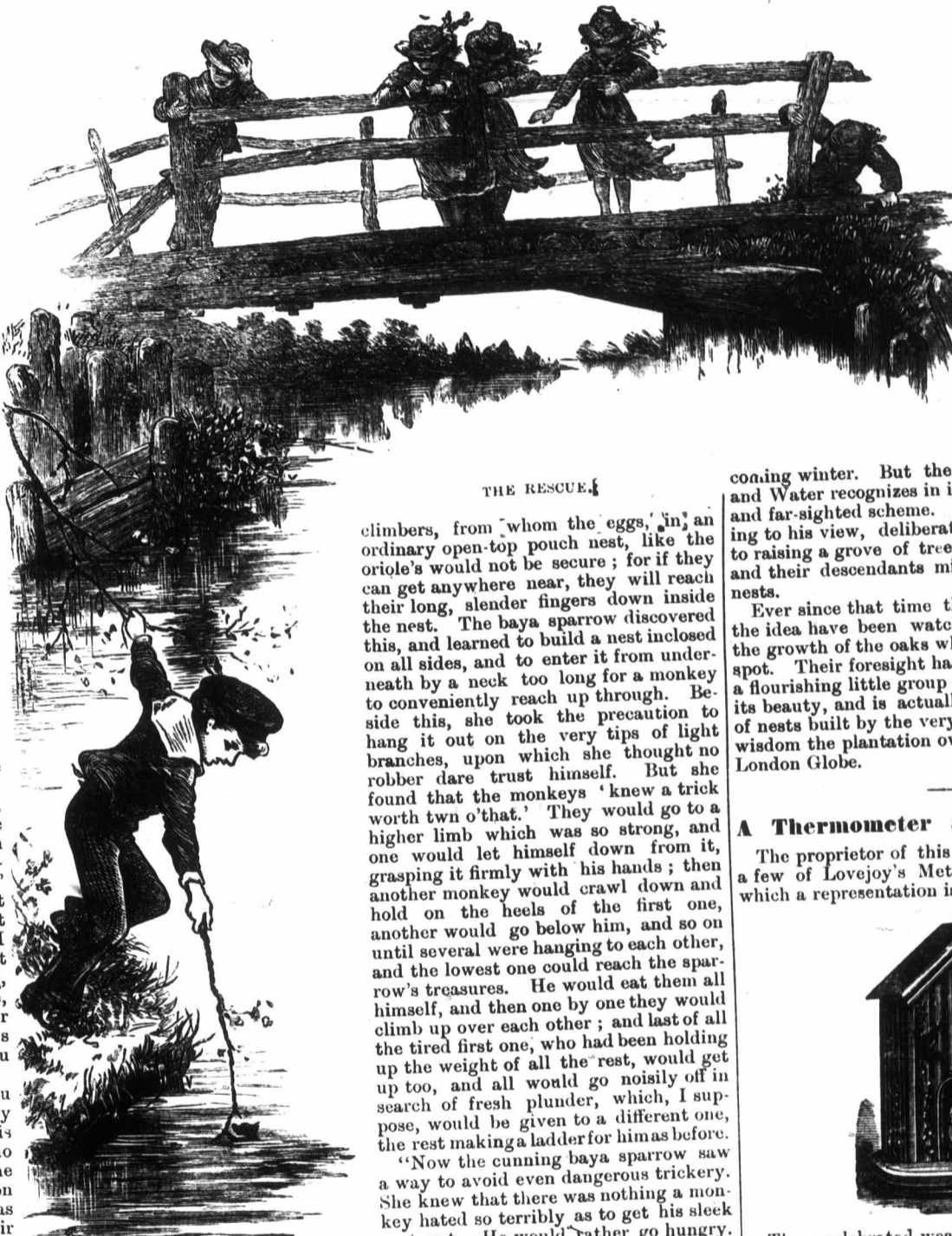
"I am afraid you do," I said, "but try to bear in mind this—that boys who do not think about the pain of animals soon blind their feelings as to the pain of their fellow creatures. Thoughtless cruelty in play, if indulged in, will soon lead to enjoyment of the sufferings of others, a disposition which is both vicious and cruel and sure to make a bad man. Besides, remember, that real manly boys always feel that every helpless creature has a special claim upon them."

A little girl recently went to see her grandfather in the country. She is fond of milk, but firmly refused to drink any while there, without giving any reason, "You had nice milk there to drink, didn't you?" "I guess I didn't drink any of that milk!" she indignantly replied. "Do you know where grandpa got it? I saw him squeeze it out of an old cow."

Pet Stock.

How a Bird Outwitted the Monkeys.

"Why do they build hanging nests?" "Those birds that do make hanging nests, undoubtedly do it because they think them the safest. Bird's eggs are delicacies on the bill of fare of several animals, and are eagerly sought by them. "In the country where the baya sparrow lives, there are snakes and opossums, and all the rest of egg-eaters, and in addition there are troops of monkeys, which are more to be feared than all the rest together. Monkeys are wonderfully expert



THE RESCUE.

climbers, from whom the eggs, in an ordinary open-top pouch nest, like the oriole's would not be secure; for if they can get anywhere near, they will reach their long, slender fingers down inside the nest. The baya sparrow discovered this, and learned to build a nest inclosed on all sides, and to enter it from underneath by a neck too long for a monkey to conveniently reach up through. Beside this, she took the precaution to hang it out on the very tips of light branches, upon which she thought no robber dare trust himself. But she found that the monkeys 'knew a trick worth two o' that.' They would go to a higher limb which was so strong, and one would let himself down from it, grasping it firmly with his hands; then another monkey would crawl down and hold on the heels of the first one, another would go below him, and so on until several were hanging to each other, and the lowest one could reach the sparrow's treasures. He would eat them all himself, and then one by one they would climb up over each other; and last of all the tired first one, who had been holding up the weight of all the rest, would get up too, and all would go noisily off in search of fresh plunder, which, I suppose, would be given to a different one, the rest making a ladder for him as before.

"Now the cunning baya sparrow saw a way to avoid even dangerous trickery. She knew that there was nothing a monkey hated so terribly as to get his sleek coat wet. He would rather go hungry. So she hung her nest over the water close to the surface, and the agile thieves do not dare make a chain enough to enable the last one to reach up into her nest from below, as he must do, for fear that the springy branches might bend so far as to souse them into the water.

"The sparrow has fairly outwitted the monkey!"

A somewhat extraordinary case of fidelity and sagacity in a dog occurred last week at Milford Haven. Two men, sergeants of the Fusiliers, when rowing in a boat with a dog were swamped. The dog, seeing the men struggling in the water, swam to the assistance of one, but finding that it was not his master, left him and at once seized the other, whom he succeeded in supporting till a steamer rescued him; the first man was unfortunately drowned.

Provident Birds.

The marvels of natural history afford an increasing theme for letters to the London periodicals which open their columns to this class of phenomena; and there is considerable competition among the observers of nature, who aspire to cap one another's stories about the dumb creation. There will be some difficulty in finding even a Yankee sportsman to beat the tale told in last week's number of Land and Water. A well-known naturalist had, it seems, remarked a curious habit in a certain nuthatch, which after depositing a nut in the ground covered it carefully with a leaf, as if for the purpose of marking the spot.

The communication of this fact to the journal in question has, however, now evoked a much more startling revelation from a less celebrated correspondent. The latter, who must, apparently, be a person of some age, avers that he has observed rooks carrying acorns to a piece of waste ground, digging holes with their beaks, and planting the acorns, which they afterward duly covered over with earth. The object of the birds might have seemed to the casual observer merely that of providing for themselves a store of food for the forth-

coming winter. But the correspondent of Land and Water more recognizes in it a much more provident and far-sighted scheme. The acorns were, according to his view, deliberately planted with a view to raising a grove of trees in which the planters and their descendants might one day build their nests.

Ever since that time the patient originators of the idea have been watching with friendly eyes the growth of the oaks which duly sprouted in the spot. Their foresight has been rewarded, and now a flourishing little group of oaks stand there in all its beauty, and is actually tenanted by a number of nests built by the very birds to whose skill and wisdom the plantation owes its origin.—[From the London Globe.

A Thermometer and a Barometer.

The proprietor of this journal has just imported a few of Lovejoy's Metallic Weather Houses, of which a representation is given below.



These celebrated weather houses are warranted by the makers to indicate the changes in the weather with accuracy, and in a simple, pleasing manner. They are substantially made and decorated in different colors, with two arches, and a little man or woman in either, arranged in such a manner that the man will come out just before a storm, while the lady steps out to enjoy fair weather. They are about 8 inches in height, with a neat thermometer in front, and make a very pretty mantle ornament. Any girl or boy whose father takes the ADVOCATE can secure one of these useful weather houses by sending in three new subscriptions with \$3. Now is the time to secure new subscribers. Send for samples, poster, list, &c., at once.

Don't stop until you secure one of Lovejoy's Metallic Weather Houses for your room,

Commercial.

THE FARMER'S ADVOCATE OFFICE,
London, Ont., Sept. 1st, 1883.

August has been in marked contrast to July—fine, bright, sunny weather with cool nights. Just the weather for harvest work, and no doubt it has been made good use of by farmers.

WHEAT

The past month has found the foreign wheat market somewhat fickle. The weather in England has been pretty fine, and fine harvest weather in England means dull markets and indifferent traders. Still, the stocks in England and in sight are heavy, with pretty free movements of wheat in the Western States, together with good crop reports from nearly all parts of the globe, may give the English millers and merchants a feeling of confidence as to future prices ruling steady or possibly lower. The yield of fall wheat in Ontario will vary very much. We hear of some who have threshed 23 to 28 bushels to the acre, and others not more than 10 bushels. There is a cause for the poor yield, and if farmers will look well into the matter we think they will find the reason to be either bad drainage, poor tillage, or, possibly, poor seed. Change of seed is a very important thing, and a few dollars spent in new or a change of seed cannot be better invested.

OATS

Are an enormous crop, and the yield will be good with a fine sample.

POTATOES

Have suffered a good deal in some sections from the excessive wet through June and July, many farmers not having enough for their own use. In other sections we understand that the crop is good.

APPLES

Are a poor crop, generally speaking, and many large orchards are almost without an apple. The crop in England is much better than for several years past.

PORK AND HOGS.

The wholesale slaughter in prices in hog products the past three months has been very rarely seen before. In less than three months the price of pork in Chicago declined about \$3 per barrel. The market must be pretty near bottom; still, with heavy crops of hogs and corn in the west the prospects of any advance are not very promising.

CHEESE

Has ruled very dull for the past three weeks, but the market is a little better the past two days. The make is heavy, but fine. We do not look for any further decline.

BUTTER.

There is very little change in prices, and buyers are very cautious. The Montreal papers report large stocks in first hands all through the townships, as well as Brockville and Morrisburg districts.

FARMERS' MARKET.

LONDON, ONT., Aug. 30, 1883.

Per 100 lbs		Eggs, small lots	
Red wheat	\$1 75 to \$1 90	15	16
Dahl	1 65 to 1 70	Potatoes, bag	1 00 to 1 50
Treadwell	1 80 to 1 85	Apples	1 00 to 1 50
Crawson	1 60 to 1 80	Roll butter	18 to 20
Corn	1 15 to 1 30	Tub "	18 to 14
Oats	1 15 to 1 30	Crock "	16 to 18
Barley	1 00 to 1 15	Cheese, lb	10 to 11
Peas	1 20 to 1 25	Onions, bush	60 to 0 80
Poultry (Dressed)	0 70	Tallow, clear	7 to 8
Chickens, pair	0 60 to 0 80	" rough	5 to 5
Ducks, pair	0 60 to 0 80	Lard, per lb	14 to 15
Turkeys, each	0 75 to 2 00	Wool	17 to 20
Poultry (Undressed)	0 50 to 0 75	Clover seed	0 00 to 0 00
Chickens, pair	0 50 to 0 75	Timothy seed	0 00 to 0 00
Live Stock		Hay, per ton	11 00 to 12 00
Milk cows	40 00 to 60 00	Beans per bush	1 25 to 1 50

TORONTO, Ont., Aug. 30, 1883.

Wheat, fall No. 1	\$1 10 to \$0 00	Chickens, pair	0 50 to 0 55
Wheat, spring	1 08 to 1 16	Fowls, brace	0 60 to 0 80
Barley	0 85 to 0 75	Ducks, brace	0 80 to 0 80
Oats	0 41 to 0 42	Geese	0 00 to 0 00
Peas	0 78 to 0 80	Turkeys	1 00 to 2 00
Flour	5 00 to 5 00	Butter, roll	0 20 to 0 20
Rye	0 00 to 0 00	Butter, dairy	0 17 to 0 18
Potatoes, bag	1 10 to 0 20	Eggs, fresh	0 19 to 0 20
Apples, brl.	0 00 to 0 00	Wool, per lb	0 17 to 0 20
Tomatoes, bu.	0 00 to 0 00	Hay	13 00 to 14 50
Beans, bu.	1 25 to 1 50	Straw	8 00 to 10 00
Onions, bag	0 00 to 0 00	Eggs	\$ 50 to \$ 75

GRAIN AND PROVISIONS.

MONTREAL, Aug. 30.

Wheat—		Ont Oatmeal	5 25 to 5 50
Can spring	\$1 17 to \$1 18	Cornmeal	3 50 to 4 00
Red winter	1 18 to 1 22	Butter—	
White	1 17 to 1 18	East'n Tp's	15 to 17
Corn	62 to 62	Morrisburg	17 to 18
Oats	35 to 36	Brockville	17 to 18
Peas	97 to 98	Western	13 to 14
Flour—		Mess pork	18 50 to 19 00
Superior ex	5 35 to 5 40	Lard	12 to 13
Superfine	4 30 to 4 50	Hams	13 to 14
Strong bak	5 50 to 5 56	Bacon	18 to 14
Pollards	3 40 to 3 50	Cheese	9 to 10

LIVE-STOCK MARKETS

BRITISH MARKETS, PER CABLE.

Liverpool, Aug. 27th, 1883.

CATTLE.

Trading in the cattle market was slow and the demand was weak, but prices show no change as compared with last week.

Choice steers	14 1/2
Good steers	14
Medium steers	13
Inferior and bulls	10 to 11 1/2

[These prices are for estimated dead weight; offal is not reckoned.]

SHEEP.

Business in the sheep market has been slow at the decline noted last week. The prices were generally steady.

Best long woolled	14 @16
Seconds	14 @15
Merinos	13 @14
Inferior and rams	11 @12

[These prices are for estimated dead weight; offal is not reckoned.]

East Buffalo, N. Y., Aug. 31.

Receipts—Cattle, 799; hogs, 7,450; sheep, 1,400. Shipments Cattle, 761; hogs, 4,805; sheep, 1,200. Cattle—Offerings light, and the run of through stock small, with all offered readily taken at about former prices. No good stock for sale. A few butchers' lots brought \$3.75 to \$4.15. Sheep and lambs—Receipts light and market strong—and firm at full former prices of yesterday. Sales, including fair to good sheep, \$4.25 to \$5.25. Western lambs, common to extra, \$4.00 to \$6.75; few Canada lambs at \$6.25 to \$6.35. Hogs—demand moderate.

Montreal, Aug. 27.—The market for shipping cattle has picked up a little from the dullness experienced last week, and at Acer & Kennedy's yards, Point St. Charles, a rather better demand prevailed. The spot offerings were light, and a clearance was effected. Prices were more firmly held at 5 1/2c. to 6 1/2c. per pound live weight, within which range all were taken. Freight is firm at 24. Shipping sheep had a dull, almost demoralized market, with prices nominal at 5c. to 5 1/2c. per pound.

CHEESE MARKET.

Liverpool, 30th Aug. (per cable)—Cheese 52s. 6d.

LONDON, ONT., CHEESE MARKET—Sept. 1st.

At the market on Saturday, fifteen factories offered 4,195 boxes, 190 being July make, balance August. Sales were made of 775 boxes at 10c., 3,405 boxes at 10 1/2c. Total sales, 4,180 boxes.

Ingersoll, Aug. 28, 1883.

At the market thirteen factories offered 4,425 boxes cheese, of which 1,700 boxes were August make, balance last half July. 4,160 boxes sold, namely, 80 boxes at 9 1/2c., 205 at 9 1/2c., 600 at 9 1/2c., 2,750 at 10c., and 525 at 10 1/2c. Several sold Aug. make that was not registered. 24 factories and 11 buyers present.

Utica, N. Y., Aug. 27, 1883.

The sales comprised 375 pkgs at 9c., 375 do. at 9 1/2c., 365 do. at 9 1/2c., 200 do. at 9 1/2c., 5,100 do. at 9 1/2c., 325 do. at 9 1/2c., 375 do. at 9 1/2c., 425 do. small at 7 1/2c., 650 do. at private terms and 1,800 do. were commissioned. Market firmer with increased demand.

Little Falls, Aug. 27, 1883.

There were sales to-day of 700 bxs. factory cheese at 9c. to 9 1/2c., 400 do. at 9 1/2c., 4,400 do. at 9 1/2c., 5,600 do. at 9 1/2c., 300 do. at 10c., 1,170 do. at private terms. 10 do. on commission and butter at 20 to 21c.—bulk at 21c. Market lively.

Dairy Notes.

Oleomargarine is a wolf in sheep's clothing. Bad butter needs no brand, as it speaks for itself.

Messrs. Garnett & Galbraith, of the Ontario Butter Tub Factory at Bethany, Ont., are now introducing to the dairymen of Canada, as a specialty, their new tin-lined Tubs. These Tubs are worthy of an inspection and trial by all interested.

A writer in an exchange says that he was troubled with the smell of garlic or wild onion in his milk. To obviate this he put the cows in the stable at about three o'clock each afternoon, and fed on hay and gave their grain as usual. The result was all he anticipated; a rest of three hours allowed this scent to pass off in the other secretions, though previously it very strongly flavored both milk and butter. The same course would probably be an advantage when the milk tastes of other foul weeds in the pasture.

The Farmer's Hand Book for 1884

will be published about the 1st of Nov. next. This most useful hand-book, besides being a calendar, will serve as a daily farm account book contain a breeding register, with a choice collection of most useful tables and other information. Full particulars in October No. Price only 25 cents a copy. Orders solicited from the trade. A few appropriate advertisements will be inserted. Terms on application. Address, THE FARMER'S ADVOCATE, London, Ont.

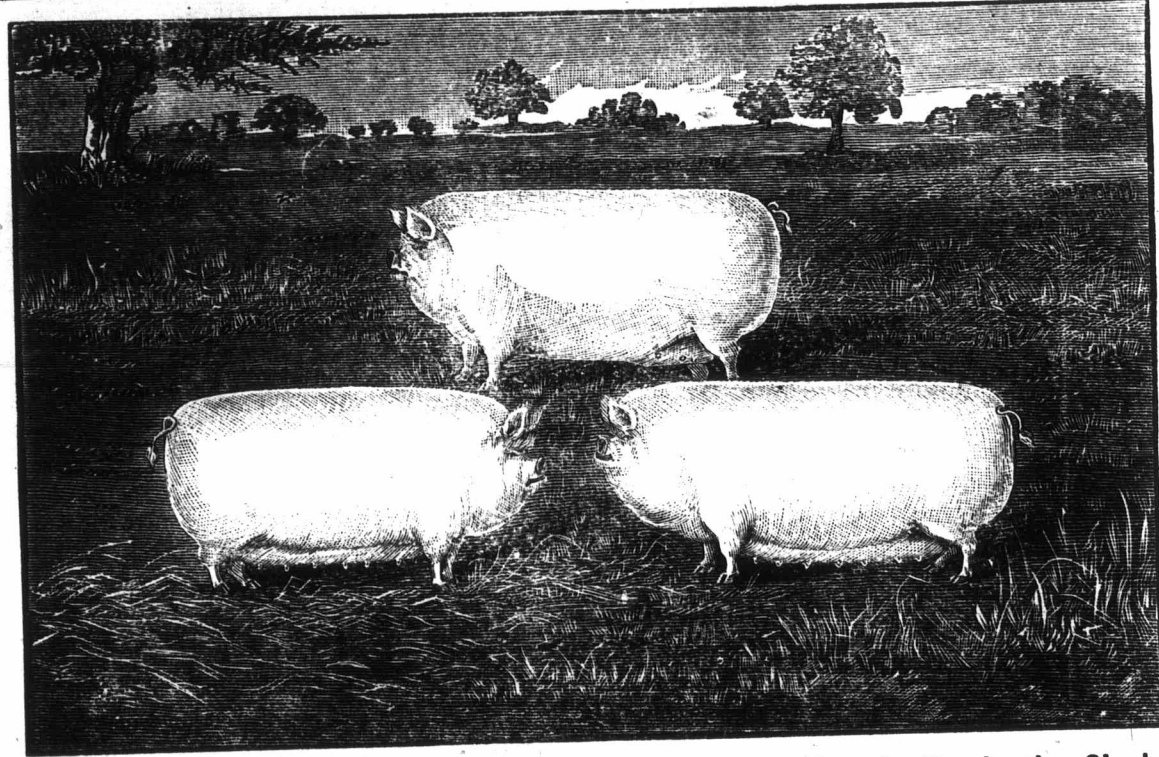
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—FOR THE—

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Allen's (R. L. & L.F.) New American Farm Book	\$2 50
American Dairying, by Prof. L. B. Arnold	1 50
American Bird Fancier	50
Allen's (L. F.) American Cattle	2 50
Barn Plans and Outbuildings, 257 Illustrations and Designs	1 50
Buist's Family Kitchen Gardener	1 00
Butter and Butter Making	25
Book of Household Pets; paper	50
Bommer's Method of Making Manures	25
Brill's Farm Gardening and Seed Growing	1 00
Clock's Diseases of Sheep	1 25
Cook's Manual of the Apiary	1 25
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Fuller's Small Fruit Culturist	1 50
Fulton's Peach Culture	1 50
Gardening for Young and Old; by Harris	1 25
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" Cabbages	30
" Carrots, Mangolds, etc.	30
" Onion Raising	25
Guenon on Milch Cows	1 00
Harlan's Farming with Green Manures (new)	1 00
Harris on the Pig	1 50
Henderson's Gardening for Pleasure	1 50
Henderson's Gardening for Profit	1 50
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Hop Culture. By nine experienced cultivators	30
House Plans for Everybody. S. B. Reed	1 50
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Keeping One Cow Profitably; illustrated with full page engravings of the most desirable Dairy Cows	1 00
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Law's Veterinary Adviser: Canadian edition	2 00
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Practical Farm Draining, &c. (By J. J. W. Billingsley)	1 00
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Quincy (Hon. Josiah) on Soiling Cattle	1 25
Quinn's Pear Culture for Profit	1 00
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Ree's Play and Profit in my Garden	1 50
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Ten Acres Enough	1 00
Thompson's Food of Animals	1 00
Waring's Farmer's Vacation	3 00
Wheeler's Homes for the People	2 00
Willard's Practical Butter Book	1 00
Williams' Window Gardening	1 50
Waring's Draining for Profit and Health	1 50
Waring's Elements of Agriculture	1 00
Wright's Practical Poultry Keeper	2 00

Any of the above useful books will be mailed post-paid, from the FARMER'S ADVOCATE Office, on receipt of price named, and for books under \$1, 5c., and over \$1, 10c. additional to cover postage, etc.



The Suffolk Hogs Still Take the Lead, leaving all other Breeds Far in the Shade.

THE CEDAR GROVE HERD has won the Sweepstakes Medal, also five Silver Medals and six Diplomas at the Centennial, Philadelphia, 1876, and since that time have won 206 Prizes and also the Diploma at the Provincial Exhibition held in London, 1881, for the best Suffolk Boar of any age.

FOR SALE—Young Boars and Sows 6 to 12 months old; Spring and Fall Pigs, 5 to 10 weeks, got by imported prize boars. And we are importing fresh blood this season from England. Satisfaction guaranteed. Also Shorthorn Bulls and Heifers, and Southdown Ram and Ewe Lambs, from imported stock.

A. FRANK & SONS,

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The best Fruit, Timber and Ornamental Tree in America.

RUSSIAN APRICOT DWARF
M'CRACKEN BLACKBERRY
Also the best **SILK WORM EGGS** and a complete text book on silk culture. Send for a price list. Address

CARPENTER & GAGE,
Bower, Jefferson Co., Neb., U. S. A.
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1883 EXHIBITION. 1883

An Exhibition will be held in
ST. JOHN, NEW BRUNSWICK,
COMMENCING ON OCT. 2nd, 1883,
Open to Exhibitors from every part of the Dominion.

The Dominion Government, the Provincial Government, and the City of St. John, have all promised liberal Grants of Money towards the Exhibition, and the erection of Splendid Permanent Buildings in addition to those already on the ground, and for the general success of the Exhibition.

The Exhibition will be open for all kinds of Agricultural Products, Live Stock, Dairy Produce, Machinery and Manufactures in Metals, Wood and Textile Fabrics, Domestic Manufactures, and Fine Arts.

Freight will be Carried at Reduced Rates

Space in the Buildings and Stalls for Stock given free

This will be the largest and most thoroughly representative Exhibition ever held in the **MARITIME PROVINCES**, and will be an excellent opportunity for the Manufacturers of the Dominion to show their productions to the people of the Lower Provinces. Premium Lists and Circulars, giving full particulars, will be ready shortly, and sent everywhere free, on application.

JULIUS L. INCHES,
SECRETARY

Fredericton, N. B., May 1, 1883

40 CARDS, all lap-corner, Gilt Edge, Glass, Motto and Chromo, Love letter and Case name in Gold and jet, 10 cents. **WEST & CO.,** Westville, Conn. 212-B

THE FOURTH Annual Exhibition

Of the Southern Counties' Fair Association will be held at
ST. THOMAS,
ON TUESDAY, WEDNESDAY, THURSDAY AND FRIDAY, SEPT. 25TH, 26TH, 27TH AND 28TH, 1883.

VERY LIBERAL PRIZE LIST.
SPECIAL ATTRACTIONS—Champion Bicycle Race; Farmers' Premium Race and Trial of Speed for Gentlemen's Road Horses; also Pacing Race, all for good prizes; grand exhibition of Fire Works Thursday evening.

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ESTABLISHED 1874.

NORMAN'S Curative Electric Belts, Bands, Insoles and Trusses are guaranteed to be the best remedy known for the immediate relief and permanent cure of Nervous Debility, Lame Back, Rheumatism, Liver, Stomach and Chest Complaints, Constipation, and all diseases of the Nerves, Genital Organs and Rupture. Circular and consultation free. **A. NORMAN, 4 Queen Street East, Toronto, Ont.** 213-y

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Especially adapted for spraying fruit trees, watering gardens and Lawns, and washing carriages. Will throw a steady stream 60 feet. Can be applied to any service that a cistern or force pump can be used for.

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Lockport, N. Y., U. S. A.
213-y

Send for Catalogue and Price List.

THE EVAPORATOR!

THE TOPPING PORTABLE EVAPORATOR

Will dry all kinds of fruits and vegetables. Four different sizes with heater attached, all ready for use. They will pay for themselves in from one to two weeks. Here is proof: Say we take a No. 2 dryer, that dries 10 bushel per day; in six days, 7 lbs to the bushel on an average, is 420 lbs. per week. At the present prices, 13c. per lb., this is \$54.60, which more than pays for the dryer the first week in use. Please figure for yourself. Slicer, corer, apple, peach and potato parers. Send for Circular.

H. TOPPING,
Dried Fruit Presses,
MARION, N. Y.
213-b

ZIMMERMAN FRUIT and VEGETABLE DRYER

MANUFACTURED BY
RICHARDS BROS.,
494 AND 496 YONGE ST., TORONTO, ONT.

Highest Awards at the Provincial Exhibitions at Hamilton and London. Dries all kinds of Fruit and Vegetables better than any other apparatus, and is especially adapted to the use of the farmer. It is the Standard Fruit Dryer of Canada, and the only one made of galvanized iron.

Agents wanted. Liberal discounts to the trade. 213-c

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M. D., M. C. P. S.
Ont.—Eye and Ear Surgeon, 34 James St., Hamilton, Ont. Dr. Anderson gives exclusive attention to the treatment of the various diseases of the EYE and EAR.

GILT Floral Autograph Album, 1 Photo Card Album, 1 Memorandum Book, 18c. **WEST & CO.,** Westville, Ct. 212-B

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UNDER SHIRTS, DRAWERS, SCARFS, CHILDREN'S WEAR, HOSIERY, CAPS, GLOVES, MITS, &c. All sizes can be made on **OUR FAMILY MACHINE.**

Our Book of Instructions will teach you all. It is so simple 6 undershirts can be made in one day, giving a profit of 75 cents each. Blind gaiter knit and finish one doz. pairs of socks per day, and \$2.85 and \$4 per day can be easily made on our **Great Family Canadian Ribbing Machine.**

Send for descriptive Catalogue and Testimonials from the blind.

CREELMAN BROS.,
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THE FARMERS' FRUIT EVAPORATOR
Dries beautifully in two hours on cooking stove while other duties are going on. Prices in reach of all. Address
J. S. STONE,
CHARLOTTE, N. Y.
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BELLEVILLE, ONT.

Within the last 15 months students have been in attendance from **11 different Provinces and States.** The College is conducted by accountants of long and varied counting-house experience, and it is the *practical* training imparted to which is due the unparalleled success of the Institution.

NO VACATION—STUDENTS MAY ENTER AT ANY TIME.
Send for College Circulars. Address
ROBINSON & JOHNSON
213-c BELLEVILLE, ONT.

'GOOD BOOK-KEEPING' to a man of business is equal to half his capital.—*Foublanque.*

DAY'S BUSINESS COLLEGE!

96 KING ST. WEST,
offers the following advantages:
Thorough Training by an experienced Accountant; Limited number of Students; Rapid Progress; Phonography Free.
For terms address
JAMES E. DAY,
Accountant, Toronto.
213

Ontario Agricultural College.

The only Institution in Ontario at which a Farmer's Son can get an Education without losing his taste for Farm Work.

SUBJECTS TAUGHT:
Agriculture, Live Stock, Arboriculture, Horticulture, Chemistry (inorganic, organic, agricultural and analytical), Geology, Meteorology, Botany, Zoology, Physiology, Entomology, Veterinary Science, English Literature and Composition, Political Economy, Arithmetic, Mensuration, Mechanics, Levelling, Draining, and Book-Keeping.

SPECIAL ATTENTION PAID TO Agriculture, Chemistry and Veterinary Science.
Six Breeds of Cattle, six of Sheep, and three of Pigs, kept for the practical study of Live Stock.

LENGTH OF COURSE. - TWO YEARS.

All Students engaged in manual labor and class room work—half-day study and half-day work, alternately.
Average cost to an Ontario Farmer's Son for board, washing and tuition, **\$50 to \$70** a year. Candidates for admission must be sixteen years of age.
Standard for Admission the same as for High Schools. High School Entrance Certificate accepted in lieu of Examination.
Students are admitted on the 1st of October by Certificate or Examination, and should remain at least till the 30th of June.
For Circulars, apply to
JAMES MILLS, President,
Guelph, June 18th, 1883. 212-ax

STOCK NOTES.

(Continued from page 287.)

The seventh annual sale of thoroughbred grade and fat stock from the Ontario Model Farm will take place on the exhibition grounds, Guelph, on Friday the 28th September.

Mr. George Whitfield, of Rougemont, P. Q., has gone to his home in Barbadoes, West Indies, where he will remain for several months to recruit his health and attend to his island business. In the meantime his agent, Mr. Wm. Watson, takes charge of his herds and property until his return.

For several years past, Mr. Henry Caddy, owner of the well-known Rougholm herd, Cumberland, has been crossing black Polled cows with a well-bred Shorthorn bull; and Mr. Caddy informs us that the improvement, both in milk and beef, has exceeded his utmost expectations.

Mr. John Dryden, M.P.P., has just received a consignment of Shropshire sheep. Among them are a prize lot from the flock of Mr. J. E. Farmer, of Ludlow. Last year a selection from this flock won first prizes at all the leading fairs, including the great Royal Show at Reading.

At the great sale of Shropshire sheep held at Birmingham, England, on the 2nd ult., 450 rams and 1,500 ewes were disposed of at very good prices. A shearling ram, winner of 1st prize at the Royal Show, realized \$500; several other rams brought over \$350 each.

B. F. Olmstead, of Hamilton, Ont., is importing some very fine Southdown sheep. They are the best that could be bought, and were selected by Mr. John C. Ross, of Jarvis, Ont., an old and experienced breeder, from among the first-prize winners at the Norfolk and Royal Shows, England.

J. G. Snell & Bro., of Edmonton, Ont., received last month from England 14 head of very fine Berkshires, including the first prize boar, 2nd prize young boar, and 2nd prize sow, at the Royal Show; also 1st and 2nd prize young sows at the Bath and West of England Show. They intend to exhibit them at the Fairs in Toronto, Guelph and London.

Mr. John Carnegie, of Peterboro', Ont., when lately in Scotland, purchased and brought home with him seven Shropshire sheep, consisting of a shearling ram and six shearling ewes, obtained from the flock kept and bred by Lord Polworth, at his estate of Humbie, in a highly exposed district on the confines of the Lammermoor Hills. This flock has been in existence for twelve years, and is identical in blood with the celebrated English flocks which have so great and deserved a reputation amongst breeders of Shropshire sheep.

Mr. Wm. Templer, of Jerseyville, Ont., has recently purchased the following high-bred stock: From John Snell's Sons, Edmonton, Ont., a pair of Berkshire pigs, viz., Western Prince and Carrie Clermont. They are from his noted prize-winners, and are beauties. From the Canada West Farm Stock Association, Bow Park, Brantford, Ont., the Shorthorn bull 13th Earl of Goodness, sired by the 38th Duke of Oxford, bred by His Grace the Duke of Devonshire at Holker Hall, England.

I find the ADVOCATE the best paper I can advertise in, as it is read by the right class of men, and for myself I would not be without it for three times its cost. A. M., Wendigo, Ont.

(Continued on page 290.)

"The Farmer's Advocate Prize" of \$100

given annually by Wm. Weld, Editor and Proprietor of this paper, will be awarded at the next Provincial Exhibition, to be held at Guelph, Ont., from the 24th to the 29th of September, inclusive, for the best samples of wheat.

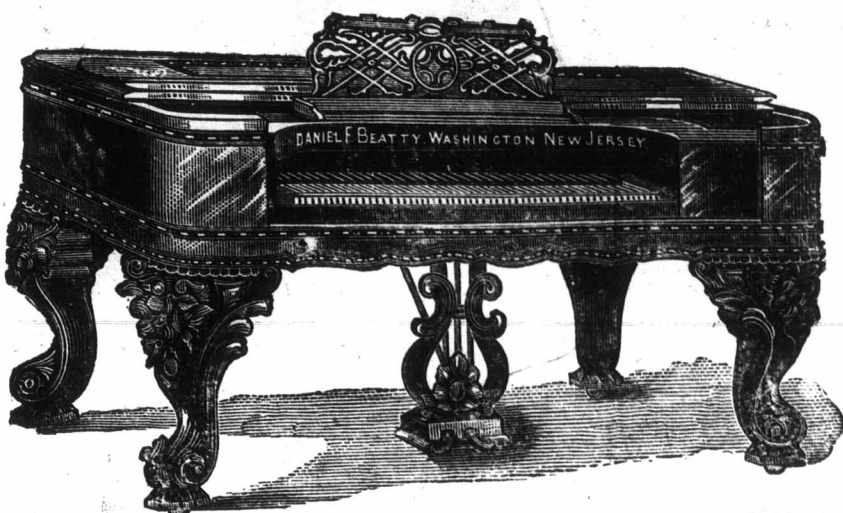
The prize will be divided as follows: Two prizes of \$30 and two of \$20 each. The first prize of \$30 to be given for the best variety of fall or winter wheat for the general farmer to raise, and \$20 for the second best variety of fall or winter wheat; \$30 for the best variety of spring wheat, and \$20 for the second best variety of spring wheat.

RULES.

Two bushels or 120 pounds of the wheat to be exhibited. The name of the wheat, together with a written description, to be given, stating where the wheat was procured, how originated or introduced, as far as can be ascertained, a description of the soil and situation on which grown, what fertilizer used, and general history of cultivation. (The wheat must have been grown in the country for at least three years.) Also a report as to its milling and marketing qualities—a practical miller to be one of the judges.

The prizes will be given to four distinct varieties, and the descriptions and reports must be furnished to the Association before the bags are opened, the reports of all competitors to be the property of THE FARMER'S ADVOCATE. It is not necessary that the finest sample of wheat should in any way effect the award of the prize except that the wheat should be pure, clean and unmixd, the object being to decide the most valuable variety from actual yield and general qualities.

BEATTY'S MIDSUMMER OFFERS!



BEATTY'S PIANOFORTES.

NEW STYLE No. 1299. DIMENSIONS: Length, 7 feet; Width, 3 feet 6 inches; Weight, boxed, 1,000 pounds. 71-3 Octaves; Elegantly Polished Rosewood Case. Two Large Round Corners, Ivory Keys, Capped Hammers, French Grand Action, Overstrung Bass, New Scale, Beautiful Carved Legs and Lyre, with Plated Foot Pedals and Rods, Improved Soft Pedal, Beatty's Original and Strongest Iron Frame, Sewall Desk, Bevelled Top, Gage Moulding on Plinth, Double Extra Wrest Plank, all improvements. Good judges in both hemi-spheres pronounce this elegant Piano the best in tone, finish, and workmanship ever

offered for anything like the price, which is extremely low and is special for the present season. Every one I sell at this time proves a wonderful advertisement for me, as it never fails to sell more. My plan is to introduce them at a small profit, and by a large trade make more than I would by occasionally selling one or two at a higher figure. Don't let this opportunity slip, or you will be sorry. Every one is positively guaranteed for 6 years. Money will be refunded after a year's use, if at the end of that time it is not found as advertised. Catalogue Price, \$650. Order Now. Nothing saved by correspondence.

SPECIAL OFFER, A BARGAIN.

To any person who will remit me only \$173.75, within 10 days from date of this newspaper, I will box and deliver the above Piano on board cars with Stool, Book, Music, for ONLY \$173.75

Address or call upon DANIEL F. BEATTY, Washington, New Jersey.

38th PROVINCIAL EXHIBITION

—OF THE—
Agricultural & Arts Association
OF ONTARIO
TO BE HELD AT
GUELPH
—ON THE—

24th to 29th September, '83.

Entries to be made with the Secretary at Toronto, on or before the undermentioned dates, viz.:

Horses, Cattle, Sheep, Swine, Poultry, Agricultural Implements, on or before Saturday, August 25th.

Grain, Field Roots and other Farm Products, Machinery and Manufactures generally, on or before Saturday, September 1st.

Horticultural Products, Ladies' Work, Fine Arts, etc., on or before Saturday, September 8th.

Prize Lists and Blank Forms for making the entries upon can be obtained of the Secretaries of all Agricultural and Horticultural Societies and Mechanics' Institutes throughout the Province, or to

HENRY WADE, Secretary,
Agricultural and Arts Association, Toronto,
D. P. MCKINNON, President,
South Finch.

212-b

THE GREAT
CENTRAL FAIR
HAMILTON, ONT.,
October 2, 3, 4 and 5th

Larger Amounts are offered in Prizes than at former Exhibitions for

STOCK, POULTRY, AGRICULTURAL, HORTICULTURAL & DAIRY PRODUCTS, IMPLEMENTS, MANUFACTURES, FINE ARTS, LADIES' WORK, &C., &C.

SPECIAL PRIZES FOR SPEEDING IN THE HORSE RING.

The Railway Companies will carry Passengers and Exhibits for one fare for the double journey. For prize lists and entry forms address

JONATHAN DAVIS, Sec'y, Hamilton, Ont.
F. C. BRUCE, Treasurer, Hamilton, Ont.
E. VANALLEN, President, Hamilton, Ont. 213-a

How to Build a House with little or no Money.



212-11

HOW TO BUILD A HOUSE

contains most approved designs for Villas, Farm Houses, Cottages, and Suburban Residences, ranging in cost from \$350 to \$20,000. 1 Vol., large quarto, 178 illustrations. Price 50 cts.

BARN AND OUTHOUSES, (Just Published)

contains most practical designs for Farm Barns, Stock Barns, Carriage Houses, Stables, Dairies, Hog Houses, Chicken Houses, Artificial Rearing Apparatus, Corn Crib, Granaries, Smoke Houses, Ice Houses, Bee Houses, Summer Houses, Bird Houses, Hot Beds, Green Houses, Graperies, How to lay out Farms and Gardens, designs for Lawn and Hanging Baskets, Garden Vases, Fountains, and valuable illustrated articles on Cheap Homes, Concrete Buildings, How to improve old Barns, etc. 1 Vol., large quarto, 200 illustrations. Price 50 cents.

"The wonder is that publications of this kind have not been issued before."—N. Y. Weekly Mirror. "Precisely meets a want which thousands have felt."—N. Y. Observer. "The most practical book we have ever seen."—Episcopal Methodist. "A responsible Association."—Christian at Work. These books must be seen to be appreciated. A mere circular or catalogue can give no idea of their value. On receipt of \$1.00 we send both books, post paid, for examination. Both or either can be returned, if not entirely satisfactory and the money will be immediately refunded. Address, Co-operative Building Plan Association, 24 Beekman St., (Box 2702,) New York.

SHIRTS, DRAWERS, CHILDREN'S WEAR, CAPS, GLOVES, &c. All sizes can be made on FAMILY MACHINE. Book of Instructions will teach you all so simple 6 under-sets can be made in day, giving a profit 5 cents each. Blind scan knit and finish doz. pairs of socks day, and \$2.83 and er day can be easily made on our at Family Canadian RIBBING MACHINE.

MERS' ORATOR on cooking stove on. Prices in reach.

ONE, ARLOTTE, N. Y.

SS COLLEGE, E, ONT.

udents have been in rent Provinces e is conducted by ical counting-house ical training im- unparalleled success

ENTS MAY ENTER ME. Address JOHNSON ONT.

PING to a man of business is ublante.

COLLEGE! WEST, advantages: an experienced number of progress; Phono

. DAY, Accountant, Toronto.

Ontario at which get an Educating his taste Work.

TAUGHT: horticulture, inorganic, organic, ic), Geology, Zoology, Physiology, nary Science, position, Metric, Mensuration, raining,

ON PAID TO Veterinary Science. of Sheep, and three of study of Live Stock.

- TWO YEARS. manual labor and class y and half-day work,

rio Farmer's Son for \$50 to \$70 a year. must be sixteen years

the same as for High trance Certificate ac- on. the 1st of October by and should remain at MILLS, President, 212-ax

SEED WHEAT

FOR FALL SOWING.

All the old and standard kinds, together with several new varieties tested by ourselves, and for the first time offered for sale in Canada.

MARTIN'S AMBER.

A new hardy, bald wheat, of remarkable length of head, light amber-colored grain. This is a very promising wheat—hardy, early and productive; has stood the past severe winter without injury. Price on application.

HYBRID MEDITERRANEAN.

Also a new variety very highly spoken of by the leading seedsmen in the States. A very thick set head like the Diehl, and bearded like the Mediterranean, combining the qualities of its parents, having the yielding qualities of the former and the hardness of the latter; has stood the winter well with us, and is worthy of a trial. Price on application.

DEMOCRAT.

First introduced by us in 1883. Has stood the past winter well, and is one of the safest wheats to sow for general crop. A choice stock of the following sorts:—**Egyptian, Roger, Scott, Clawson, Fultz, &c.**

See full descriptions, with **Cuts and Prices**, in our Fall Wheat Circular. Free to all who apply. Send for it.

Always in stock—Orchard Grass, Kentucky Blue Grass, Meadow Fescue, Oat Grass, &c., and all Grasses for permanent pastures.

PEARCE, WELD & CO.,
Seed Merchants,

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Springwood Cotswolds

A LOT OF FIRST-CLASS
RAMS AND RAM LAMBS FOR SALE

This flock was awarded first prize at the Toronto Industrial Exhibition in 1880 and 1881; also first at Hamilton and first at London Provincial Exhibition in 1880 and 1881, the last time exhibited.

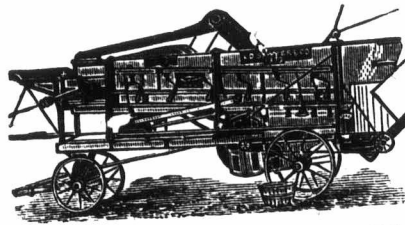
J. & W. RUSSELL,
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213-a

HAMILTON AGRICULTURAL WORKS

The Pioneer Threshing Machine
Works of Canada.

ESTABLISHED 1836.



Our Celebrated GRAIN SAVER is the Best and Most Perfect THRESHER and SEPARATOR made in the Dominion, being first over all others for

Durability, Workmanship, Fast & Clean Work,
Perfection of Parts, Ease of Management,
Simplicity of Construction, Light-
ness of Draft, Capacity for Work.

We have Machines working in all parts of Canada, giving the very best satisfaction, when driven by either Steam or Horse Power.

It is a General Favorite with the Farmers, who prefer it
for Fast and Clean Work.

SPECIAL SIZE MADE FOR STEAM POWER.

Address us for Circular and Price List of THRESHERS, CLOVER MILLS, HORSE POWERS, REAPERS AND MOWERS. A personal inspection is solicited.

L. D. SAWYER & CO.,
HAMILTON, ONT., CANADA

178-1eom

Western Fair

LONDON, CANADA.

ONTARIO'S GREAT EXHIBITION.

October 1st, 2nd, 3rd, 4th and 5th, 1883.

\$15,000.00 IN PRIZES!

Open to the World.

Large prizes for trials of speed in the horse ring each afternoon.
Electric Lights, Band Competitions, and other novelties for the entertainment and amusement of our visitors.

Exhibitors will please address communications to JNO. B. SMYTH, Secretary, London, Canada, for Prize Lists and any other information required, which will be promptly attended to.

JOHN B. SMYTH, Secretary. JOHN KENNEDY, President.

213-a

FARM & GARDEN SEEDS FOR CANADA.

SUTTON & SONS

ROYAL SEED ESTABLISHMENT, ENGLAND.

SEEDSMEN TO
Her Majesty the Queen.
H. R. H. Prince of Wales.
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H. I. M. Emperor of Austria.
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Her Majesty's Government Works at Portsea
Gravesend, Portland, &c., &c. &c.
Agent—J. W. DOW, Kingston, Kent Co., N. B.
S.—Send for Catalogues. 203-1

STOCK NOTES.

(Continued from page 289.)

Our readers will please note that the sale of stock by E. W. Chambers, Springvale Farm, near Woodstock, will take place on the 21st, and not on the 28th September, as previously announced.

Mr. Hugh Thomson, of St. Mary's, Ont., has recently sold to Mr. John Gibson, jr., of West Nissouri, the cows Miss Butterfly and bull calf, Butterfly and bull calf, Ruby Hill, and yearling bull "Scottish Chief." Also a two-year-old imported stallion, Sir Walter Scott 3rd.

Messrs. Cook & Lord, of Aultsville, Ont., write:—"Our Stock Farm will shortly be augmented by the addition of 30 or more head from our stock of over 100 yet in the quarantine at Quebec. This will bring our herd well up between 40 and 50 head of all ages, and will contain representatives from some of the best milking families recently imported from Holland. This stock is all pure bred and registered in the Holstein Herd Book.

Samuel Smoke, of Canning, has purchased from Mr. Rolph, of Markham, the following Jerseys: Barnet's Victory, imported by Mr. Fuller, out of that great cow Victory, which he paid \$1,000 for on the Island; price, \$900; also Pearl, of St. Lambert, for \$700, and another heifer not yet named, full of the St. Lambert blood, for \$600; also two heifers from G. M. Beeman, of Brockville. Those heifers are grand-daughters of Duke 76, who stands very high in the U. S.; price \$600. He has sold to George Smith, of Grimsby, Riort's Queen, No. 14895, for \$500. These cattle are all registered in the A. J. C. C. H. R.

John C. Ross, of Clayfield Stock Farm, Jarvis, Ont., has just arrived home with a large importation, consisting of 7 Cleveland horses and 4 Clydesdales; 45 sheep, including the first prize pen at the Royal Show of Southdowns; also a very fine lot of Shropshires, including second prize pen of Shropshires, and a number of Oxforddowns, all selected from the best breeders in England, selected with great care. He has a nice lot of Berkshire pigs from the most fashionable strains in England. He had a nice voyage, and got the stock all landed safe and in good order. They are doing well.

Messrs. Green Bros., of Oakville, Ont., importations of Scotch Shorthorns, have arrived at their breeding farm, Oakville, Ont., in fine condition. Their bull, the Earl of Mar, is a first-class animal, and their eight heifers are very good. Mysie 34th, a red heifer, although small, is a little gem. We understand some of their importations will appear at the Toronto and other shows. Messrs. Green Bros. have purchased the Shorthorn heifer "Fanny" of Mr. John Dryden, M. P. P., Brooklin, Ont. This heifer has three crosses of Cruickshank's bull, and is in calf to Mr. Dryden's imported red bull, "Lord Glamis," also a Cruickshank bull. The whole of this stock is either imported direct from the Cruickshank, Duthie or Marris herds, or strongly impregnated with the Cruickshank blood.

GREAT PROGRESS IN HORSE BREEDING.—The great demand for large work horses has led to extreme experiments in breeding the small mares of western ranges to large Percheron stallions. The results, contrary to public belief, have proven remarkably successful. From these mares, weighing from 700 to 900 pounds, and worth from \$25 to \$50 each, when bred to Percheron stallions, are produced horses that possess about one-half the united weight of sire and dam, and while partaking of the characteristics of the sire, they lose none of the end rance and hardihood of the dam, selling readily for from \$100 to \$200. One of the best evidences of the success of this method of breeding is deduced from the fact that M. W. Dunham, of Wayne, Ill., the greatest importer of Percherons in America, and from whose stables have gone out nearly all the pure bred Percheron stallions now in breeding on western ranges, and who has had the benefit of the experience of all those who have been breeding from stallions bought of him during the past ten years, has engaged in the business with Messrs. J. M. and J. F. Studebaker, of South Bend, Ind., Col. Lemert, of Ohio, and John A. Witter, of Denver, Col. They have invested \$500,000 in breeding and stock in Colorado, and have now in breeding 2,000 mares and 21 imported Percheron stallions. These gentlemen have recently returned from Colorado, where they have been spending some time in increasing their stock and extending their ranges, and next year they will have 30 imported Percheron stallions in breeding.

ENGINES

from 3 to 60 horse-power used by farmers, threshers, cheese and butter factories, brick-makers, printing offices, cabinet and planing factories, saw mills and all purposes requiring steam power.

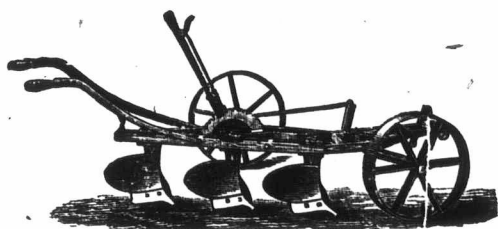
BOILERS

from 4 to 100 horse-power, stationary, upright and locomotive, made of steel or iron, for all duties; also boilers for greenhouses. Llewellyn's Patent Heater Filter, Injectors, Force Pumps, Engineer's Brass Goods and Fittings.

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H. LEONARD & SONS, LONDON, CANADA.

DEATH TO CANADA THISTLES.



ECLIPSE GANG PLOW.

**BUNGAY MANUFACTURING COMPANY,
OF NORWICH,**

Manufacturers of Agricultural Implements generally, beg to call special attention to their

Eclipse Gang Plow and Two-Horse Cultivator.

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Norwich, Ont.

THE OLD RELIABLE HALLADAY STANDARD WIND MILL, 27 YEARS IN USE.



GUARANTEED

Superior to any other make.

17 Sizes-1 to 40 H. Power

Adopted by U. S. government at forts and garrisons and by all leading railroad companies of this and other countries.

Also the Celebrated

I K L FEED MILL,

which can be run by any power and is cheap, effective and durable. Will grind any kind of small grain into feed at the rate of 6 to 25 bushels per hour, according to quality and size of mill used. Send for Catalogue and Price-List. Address

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GRAPE VINES!

Jefferson, Lady Washington, Pocklington, Delaware, Catawba, Concord, Etc. LOWER THAN THE LOWEST. Price list free, with lithograph cuts of Jefferson and Pocklington. ALL STOCK WARRANTED TRUE TO NAME. Bluff Point, P. O. EVERETT BROWN & CO., Yates Co., N. Y.



DEREDICK'S HAY PRESSES

are sent anywhere on trial to operate against all other Presses, the customer keeping the one that suits best. No one has ever dared show up any other Press, as Dederick's Press is known to be beyond competition, and will bale at less expense with twice the rapidity and load more in a car than any other. The only way inferior machines can be sold is to deceive the inexperienced by ridiculously false statements, and thus sell without sight or seeing, and swindle the purchaser. Working any other Press alongside of Dederick's always sells the purchaser a Dederick Press, and all know it too well to show up. Address for circular and location of Western and Southern storerooms and Agents, P. K. DEDERICK & CO., Albany, N. Y.

Fast Potato Digging!



The Monarch Lightening Potato Digger Saves its cost yearly, FIVE TIMES OVER, to every farmer. Guaranteed to Dig Six Hundred Bushels a Day!

Write Postal Card for Free Illustrated Circulars. Mention this paper. Address Monarch Manufacturing Co., 163 Randolph St. Chicago, Ill.



25 YEARS' experience of a CONSTANTLY INCREASING DEMAND for this

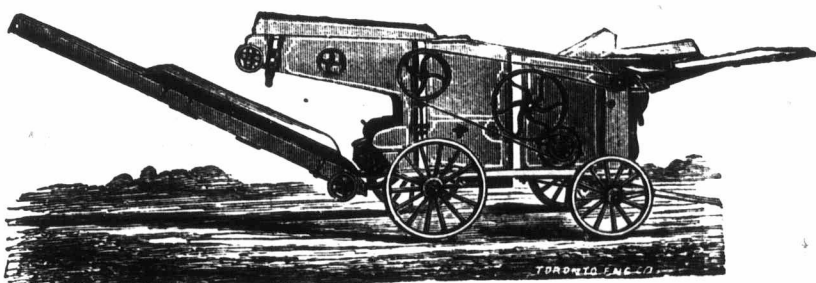
Cook's Friend Baking Powder

shows that the WANTS of the CONSUMER have been well studied. THE COOK'S FRIEND is PURE, HEALTHY and RELIABLE. It will always be found equal to any duty claimed for it. Retailed everywhere. ASK FOR McLAREN'S COOK'S FRIEND

Agricultural Savings & Loan Co'y

LONDON, ONTARIO.
President—WM. GLASS, Sheriff Co. Middlesex.
Vice-President—ADAM MURRAY, Co. Treasurer
Subscribed Capital, \$600,000
Paid Up do. 575,000
Reserve Fund, 61,000
Total Assets, 1,339,000

The Company issues debentures for two or more years in sums of \$100 and upwards, bearing interest at highest current rates, payable half-yearly by coupons. Executors and Trustees are authorized by law to invest in debentures of this Company. For information apply to JOHN A. ROE, Manager.



To Farmers and Threshers of the Dominion of Canada:

I MAKE THRESHERS

of different sizes to suit large or small farmers, and large machines for Threshers.

EACH AND EVERY MACHINE FULLY GUARANTEED.

Fast Threshers, Run Light, Perfect Separation No Waste and Good Cleaners.

The Best Style of Machine made in the World.

Send for Circular and particulars before next season is on, that order may be placed in good time.

JAS. SHARMAN
STRATFORD, ONT.

Mention "Farmer's Advocate."

206-F

at the sale of the Farm, near 21st, and not y announced.

's, Ont., has jr., of West and bull calf, and yearling 9-year-old im-

Ont., write:— be augmented from our stock Quebec. This 40 and 50 head entatives from ently imported pure bred and k.

urchased from wing Jerseys: Fuller, out of paid \$1,000 for Pearl, of St. heifer not yet ood, for \$600; of Brockville. of Duke 76, who \$600. He has Riort's Queen, are all regis-

Farm, Jarvis, a large importa- es and 4 Clydes- st-prize pen at also a very fine nd prize pen of xforddowns, all s in En. land, as a nice lot of onable strains in and got the stock They are doing

e, Ont., importa arrived at their n fine condition. rst-class animal, d. Mysie 34th, little gem. We tions will appear Messrs Green n heifer "Fanny", Brooklin, Ont. uickshank's bull, mported red bull, hank bull. The orted direct from herds, or strong- hank blood.

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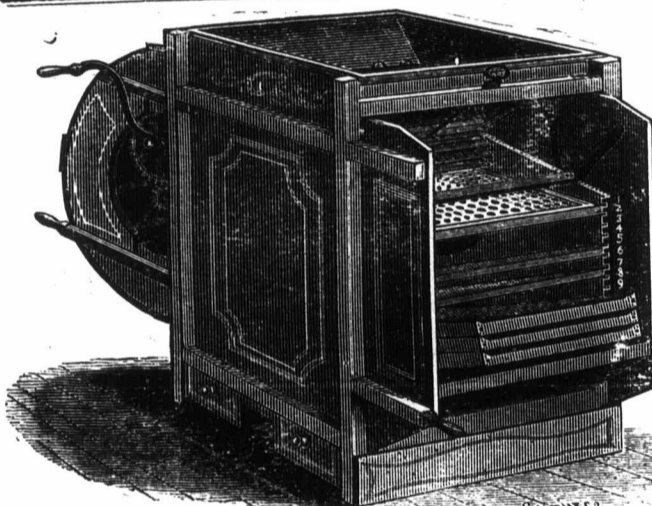
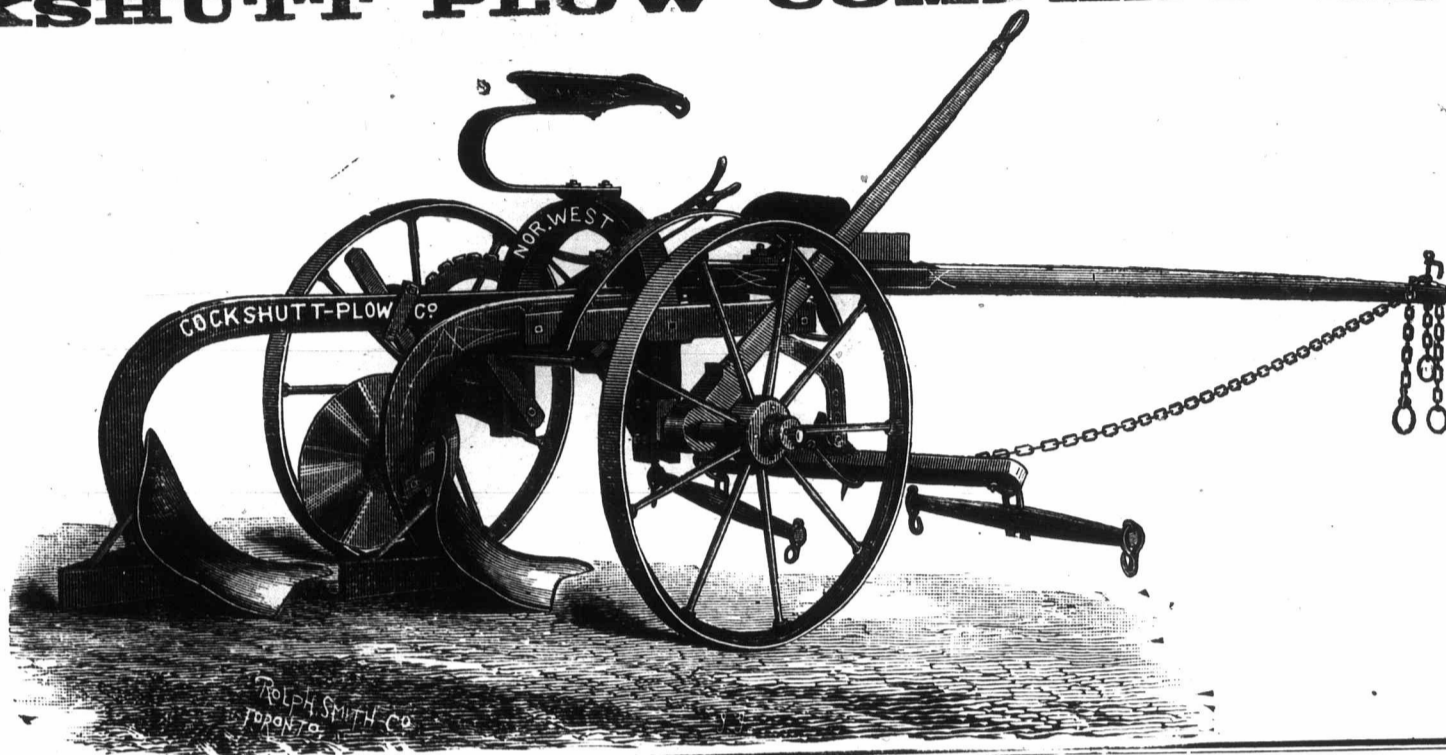
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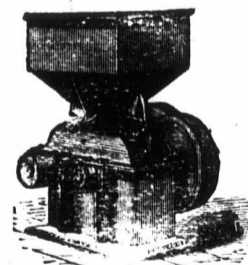
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