

FARMER'S ADVOCATE

AND HOME MAGAZINE.

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NO. 7.

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THE EXHIBITION NUMBER

—OF THE—

Farmer's Advocate

FOR 1879,

—WILL BE ISSUED—

On or about the 1st September next.

Our third annual issue of this fast increasing and most successful advertising medium, will be the best one ever issued. While thanking our patrons of former years, and the patrons of the *ADVOCATE*, for their confidence in our endeavors to promote their interests, we can assure them that our endeavors will not be relaxed, and that the increased facilities now in our hands will be used to the utmost for their benefit.

The circulation will be carefully divided among the leading farmers throughout the Dominion.

Prospectuses will be issued on the 15th July, and space can now be reserved.

Further particulars in next issue.

The Month.

Work, work, constant work is now calling your attention. Keep a little ahead if possible. Cultivate and destroy the germs of the weeds before they show the green leaf; this is the cheapest way to kill them. Do not be afraid of stirring the ground, especially if it gets dry. You increase the crop by sodding. The earth, if stirred, absorbs the moisture.

Do not let your hay crop turn to a woody substance before cutting; hay and grain are both better by being cut early. Keep down the Canada thistles; do not let them break in your fallow or among your hoed crops.

See how comfortable your neighbors' cows and sheep are under the shade of those fine trees. If you have none, make up your mind you will have a shade for yours in a few years. If your poor beasts have to suffer in the hot sun, do you not think it would pay you to set up a few posts and lay some boards on them, or get some green boughs and put on the top to make a shade? There is nothing like making animals comfortable if you wish to make the most profit from them.

You may perhaps complain about the price of butter or cheese. Do you think either of them will improve in quality while in your possession? If not, sell. Tons of cheese were sold last year for two cents per pound because it was kept till past its prime; tons of butter were sold for grease at five cents per pound. By keeping you may perhaps realize these figures.

Keep the potatoes free from the Colorado bug by applications of Paris green and plaster. If you do not perhaps you may lack potatoes in the winter.

Manitoba—No. 1.

PREPARING FOR FLIGHT.

We have read very laudatory accounts of this part of our Dominion, many of which have been written by private individuals or Government officials, or interested parties having an axe to grind. We have also heard most deplorable accounts from parties we have seen. We wish to form our opinion untrammelled and give you our opinion of the country, its present position and future prospects, and show both sides, the advantages and disadvantages it may offer to our subscribers and their sons as a place for settlement or investment; also to inform our friends in Europe if the prospects are such as to justify the expenditure of money in developing this vast tract. We have published reports, but personal observation will satisfy us far better than any report.

We have not been practicing rifle shooting, making bullets and investing in bowie knives and pistols, as we did when we prepared to come here. We do not encumber ourselves with pistol, gun, dirk, fishing tackle—no, not even a trunk. We take a couple of valises, such as we can carry easily, a change of clothes and a few necessaries; no umbrella, but a waterproof coat or rug. We never take much money, preferring to pay the P. O. or bank a trifle, and get small quantities as we require it. We intend to go by rail, with emigrants—as an emigrant; then we can speak better of how you are likely to fare on the road. We purpose taking the shortest route to get there; on our return trip we will consult our own personal convenience and comfort a little more, and intend to return by water as far as practicable, as we desire to see all we can when we are on our journeys.

Manitoba, June 17.

We left London on the 10th by Mr. Patterson's emigration party. Perhaps this may have been the most luxurious emigration party that ever left Ontario; at any rate, the attention to the comforts of passengers exceeded any we ever before witnessed. The tickets were only \$22.60 from London to St. Boniface, with privilege to lay over at connecting points.

We left at 11.30 p. m., Tuesday; left Detroit at 5.30 a. m., Wednesday; Grand Haven, 2 p. m.; Milwaukee, 10.30; arrived at St. Paul Thursday at 1 p. m., and remained till 5 p. m.; arrived at Emerson on Friday, 6 p. m.

Every passenger was allowed two seats; some occupied four. A smoking car was attached at Detroit; at Milwaukee a sleeping car was attached, and accompanied the train throughout the trip, free for the ladies and children. Three attendants accompanied the train to look after the comforts of passengers, and another jolly old gentleman joined the company at Detroit, hired for the express purpose of amusing the passengers.

The changes were expeditiously made. The party were all cheerful, happy and hopeful. Many ladies were going to their husbands. Many farmers were taking teams, stock and implements.

At St. Paul we walked through the city. There are magnificent views obtainable here, which the inhabitants claim as the finest in the world; they are very fine. The city has a population of about 50,000, and has a prosperous appearance.

Emigrants claim that they have been deceived, that the Pacific R. R. contractors have not used them honestly or honorably. It is the duty of every journal in Ontario and Quebec to immediately caution poor people from coming here this year.

CAUTION.

Persons of small means, do not think of coming to this Province this season. The labor market is overstocked. There are over fifty emigrants at the emigrant sheds here; some have been here five weeks and cannot find work. Many have gone to the States, and some are walking back to Canada; they are leaving daily. We believe they would kill the emigration agent and circular writers if they could get at them. No emigration agent has yet gone to the sheds. The poor are begging, and good men, good mechanics. It is a sad sight to see them and hear their accounts. Many have been to the Canada Pacific R. R. and have been shamefully used. We have seen farmers from all parts of Manitoba. Men that have \$150 to spare may come and examine the country; many will like it. No settler should come this year unless he can command \$600 at least. There may be some good openings for those who have plenty of capital and energy. All are not satisfied that are here; some are highly delighted. An excursion party having return tickets would be delightful to many. We hear that accounts from Winnipeg are worse, and that there is more distress there than at this place. Mr. Patterson has filled his agreement with parties most satisfactorily.

(To be Continued.)

Lucerne in Canada.

Mr. Romeo Stephens, of Slocum Lodge, St. Lambert's, near Montreal, informs us that he commenced cutting his first crop of Lucerne on Monday, the 2nd day of June. Some of the crop was two feet five inches high, yet not a drop of rain had fallen on his farm this spring up to that time. Mr. S. cut four crops of this valuable fodder from the same ground during the season, and six cuttings are often taken from it in England.

We have frequently called the attention of our readers to this valuable forage plant. Very few have yet seen it. It is only to be seen on the farms of a few of the most enterprising as yet. We hope to see it grown on every concession. It is known in the States as Alfalfa or Chilian clover.

English Letter, No. 3.

[FROM OUR OWN CORRESPONDENT.]

Liverpool, June 4th.

Barely a fortnight from the longest day, and yet no taste of summer! We are, in fact, just a month to six weeks behind time compared with average seasons; but those who are learned in such things take comfort from the fact that the fruit trees, &c., having escaped frosts, we shall have a plentiful apple, pear, plum and cherry season, and generally a good fruit year. The reports as to grass and cereals are also good, and the farmers, though they have had a very expensive winter and spring, have fewer complaints than usual about things as they are.

Cattle are arriving freely from the Dominion, and so far without any symptoms of disease. Some of them have not been, however, to use a trade term, "finished," and a number of these have been sent to Dublin, where they, no doubt, will realize very fair prices as "stores."

The "block" which I anticipated at the lairages and slaughter houses at this port has already commenced; and the Privy Council having scheduled States pigs, which must now also be slaughtered, the difficulties of the authorities here are materially increased. At a recent meeting the Mersey Docks and Harbor Board authorized an extension of the lairages and slaughtering facilities at a cost of £4,555, but even this, I fear, will be found quite inadequate to meet the demands of the next few months.

I have further to note that the steamship Lizzie, from Boston, arrived recently in London with upwards of 700 American sheep on board. These were landed at Thames Haven, and were afterwards forwarded to the Metropolitan Market, where the inspectors found them suffering from the infectious disease "scab." For some time it has been known in this country that sheep in Kansas and Texas are affected with this disease; but no case has ever been found amongst Canadian sheep. Our exemption hitherto, however, should not warrant the Government Inspectors in relaxing their vigilance in the inspection of sheep passing from this country, as it is just possible that some negligent farmer may not take the simple precautions which are necessary for the extermination of this disease, should it manifest itself in any form. In this connection, whilst conversing with a gentleman who is engaged exclusively in sheep-raising at the Falkland Islands, I was informed that sheep—the descendants of imported stock three generations before—had exhibited this disease, which was, however, easily eradicated by chemical washes, which are prepared for that purpose, and sold by almost all chemists and veterinary surgeons. This is not the first case of this disease which has been detected among American sheep, for in February 150 American sheep were detected with scab in London; and although the Privy Council have not as yet scheduled American sheep, this may be looked for at no very distant date.

As you are aware, the best sheep imported from the American continent come from Western Canada, and it is very gratifying for me to be able to remark that, through the efforts of your journal, your Canadian readers are better informed than any others in America as to the requirements of this market, which has now been proved to be the only legitimate and profitable market for your surplus stock. What is wanted in this respect is more lean, and not so much waste fat. I am pleased to state that one of those enterprising farmers who are the making of any country, Mr. T. D. Hodgins, a gentleman well known to you, having made diligent enquiries of the most competent authorities of this country as to the best

sheep to cross with our Canadians to meet the requirements of the market, has decided that Shropshire sheep or Downs are of the required class, and he has consequently shipped you a very valuable draft, selected from Lord Polewarki's flock, which will no doubt reach London, Ont., before these lines are in print.

I am pleased also to state that a number of horses have arrived here recently from the neighborhood of Toronto, Ottawa, and the Eastern Townships, care having been taken to select those suitable for omnibus purposes, and light compact farmers' horses; and it is very satisfactory to know that the result has proved highly successful. The horses brought, although they did not realize extravagant prices, were of that class which are merchantable, and as easily exchangeable as a five dollar bill. The demand for carriage horses, although slightly improving, is not what it was this time last year. There are a few enquiries for green Canadian hunters, which may be filled in time for the opening of the next season's fox hunting.

Mr. F. W. Stone, jr., writing to *Bell's Weekly Messenger*, on the 26th ult., states that his father's letter to your journal with respect to the demand for Hereford bulls for Colorado and elsewhere, contains a clerical error; "500" in his opinion being clearly intended for 50, which latter number he thinks would be quite adequate to meet the demand. In this Mr. Stone, jr., is evidently mistaken, as I have just seen Mr. Scott of Colorado, who has been in this country for several months, endeavoring to purchase one hundred Hereford bulls for that country. This is only one instance, as there are several others from the far west at present here, bent on the same purpose, and they are now anxiously awaiting any relaxations of the order which prohibits British cattle entering the United States, and in the event of this not taking place within a certain time, I anticipate good prices realized for those Herefords which you have for sale in the Dominion. The reason assigned by Mr. Scott and others for their preference for Herefords over Shorthorns is that it has heretofore been found that the Shorthorns get too leggy, whilst the Herefords and their descendants retain their shape, keep close to the ground, and do not develop the unprofitable offal portions.

Hogs from the States arriving here still continue to exhibit signs of typhus. I visited the abattoirs where they are being slaughtered, at Birkenhead, the other day; I saw some, which had been slaughtered, in really a terrible condition. This must be an awful disease. They were fairly rotten. The whole of the carcasses affected in this manner are placed in a retort and burned, as if they were once allowed to go outside the slaughter-houses the demand for meat in this country is so great, even when of bad or dangerous quality, that there would be serious danger of some of them getting into consumption.

No doubt your farmers' wives are now busy with their crop of turkeys and other poultry. I may here remark that the trade which has been conducted for the last three or four years in poultry from Canada to this country bids fair to be quadrupled during the ensuing season. Your lady friends should bear in mind that the better the quality the better the price that will be paid; and as dealers will leave this country to purchase any really good stock, there will be ample demand for all they may produce, and any special care and attention which is paid to the rearing and fattening will be amply rewarded by the high prices obtained. Anything second-class will not do for shipment to this country.

A report got abroad a short time ago that the Prince of Wales, following the example of several

of the leading land-owners in this country, was going to reduce his rents—in the Prince's case 20 per cent. At a recent rent audit, however, to the great disappointment of the tenants, it was stated that this was an error, and nearly all the tenants declined to sit at the audit dinner. The Duke of Bedford has remitted half a year's rent to his farming tenants, which act of generosity, it is stated, cost His Grace the good round sum of \$70,000. Some of us, however, could just manage to make ends meet on the balance of the year's rent.

The sixteenth annual horse show was held at Islington, London, on Saturday last. The total number of horses shown was 337, in 15 classes. The exhibits are stated to have been of a better class than any since the inauguration of the show. A number of mules have lately arrived from Kentucky, and have been forwarded to some of the tramway companies in this country for trial.

Talking of horses, the greatest event of the English racing year, the Derby, came off on Wednesday, May 28th, and was remarkable for many things. First of all, it was the centenary of the great race; next, the subscribers numbered 280, the largest number ever known; the field comprised 23, the largest since 1867; three horses came in before the favorites; the winner, Sir Bevys, is reported to have been the property of Baron Rothschild, who has since been the victim of sudden death; and finally, the winner was ridden by Fordham, the well-known jockey, who, after being upon the turf for twenty years, and winning every other great turf prize, has only thus succeeded at last in winning the blue ribbon.

The fixing up of the Royal Agricultural Society's show yard, at Kilburn, London, is rapidly approaching completion. There will be something like three miles of shedding for machinery and implements alone. The Prince of Wales will open the show, which is, as you are aware, international in character. In my next letter I hope to say something more in detail on this subject.

Messrs. Cassells & Co., the well-known publishers of London, have announced the issue, in monthly parts, of a new and original work entitled "Dairy Farming," edited by the celebrated Professor Sheldon, one of the best authorities on dairy matters in Europe. The results of recent investigations and experiments in Europe and America will be given, and the various improved practices and processes will be described and illustrated. This being the first important publication on dairy matters in this country, it is anxiously looked forward to by a large number, both of producers and consumers, who are viewing with dismay the advances which have been made by our French and Schleswig-Holstein competitors. The first number is to appear on the 25th inst.

I promised in my last a description of the new cold store which has been constructed in Victoria street, Liverpool; but as it is still incomplete, I must postpone my account for another month.

At about the middle of the past month Canadian steers were sold in the principal markets of Belgium at 1 franc per kilogramme live weight, or about 9½ cents per pound, being nearly double the price at which our choicest stock can be bought for here. If then it pays to re-ship our live stock from England to Belgium, surely it is a safe enough investment to export there direct. Sales of Canadian saddle and carriage horses have also recently been made in Antwerp at from 1,200 francs to 1,800 francs each, or \$240 to \$360. In corroboration of the above, a private letter from Antwerp states that "products of every kind are now being introduced into Belgium from Canada via England, even fat cattle and horses, and they give good satisfaction."—[Montreal Gazette.

On the Wing.

ARKANSAS—NO. 3.

In the July number of 1878 we gave you the second article on our visit to the above-named State. A typographical error appeared in that article; the monster vine spoken of there should have read thirty feet instead of three.

We arrived at Little Rock on Monday. The Sunday previous to our arrival two of the editors of different party papers met at one of the corners of the principal street, drew their revolvers and blazed away at each other for some time. One was shot in the arm, the other had a ball passed through the rim of his hat.

The landlady of the house at which we stayed had a brother a Minister of the Gospel; he never used to enter the pulpit without his loaded revolver. Her daughter, quite a child, had seen two people shot. At the railway station we heard the report of a pistol, saw a crowd rush at a man and wrench a pistol out of his hand; he tried to shoot a railway official that had supplied his place by another person. The law in the State prohibits the carrying of fire-arms, but it is winked at by those in position and power. The Sunday duel or skirmish was witnessed by the Sheriff, constables, &c., but no one interfered. A farce of a trial ensued to blind the eyes of the world, but the law-breakers were allowed to go unpunished. The tone of the people was this: "It is their own business and leave them alone."

We spent one Sunday at Little Rock. In the morning we took a walk. The beautiful Magnolia trees, with their exquisitely beautiful flowers, looked charming. The mocking birds were warbling in nearly every tree; the roses, honeysuckles, etc., filled the air with their perfume. The novelty pleased us. We attended divine worship in the morning, and after dinner took a drive into the country. We passed the burying grounds of the slain during the Rebellion; many thousands were buried here. The burying ground of the Confederates was a wilderness of trees, the fence decayed, and no signs that interments had taken place. The burying ground of the Federals was well fenced, neatly kept, and a marble monument placed at the head of every grave. What sad, sad thoughts this awakens! The once wealthy planters' sons, the owners of this land, lay unregarded, while the graves of the conscript hirelings are marked with honor and kept up at an enormous expense to the Government.

We had previously been introduced to one of these old planters, a Mr. Woodruff. He resides in Little Rock, has a three storey, handsome, spacious brick mansion, like an Englishman's country seat, with fine, large, handsome trees, vines, drives and walks—a perfectly charming place to us. The old gentleman appeared between eighty and ninety, in good health, and having a clear, sound intellect—a perfect gentleman. He informed us that he always opposed the Rebellion, and he never felt so sad as on the day he heard the Confederates had commenced the war. His family and property were nearly all swept away, and now he could not pay the taxes on the little left. We heard of other heart-rending tales from other farmers. You can have but the slightest idea of the real hardships these poor creatures have endured. You should be thankful you are under the Union Jack. There are circumstances existing in the United States that foreshadow a yet greater war than they have yet had. We do not mean that the South can ever rise again, but the excited political feeling in the North and South, East and West, is like gunpowder. The best men in the States will not enter into political life. The low resorts and unprincipled tactics used are demoralizing; the title of Honorable in this part of the

world does not often imply the right term to parties prefixing it to their names.

To proceed on our journey. We drove over such a rocky road and up such hills as we never had seen a vehicle travel before. We came to a vineyard belonging to an Englishman from Devonshire. This individual had been here many years, and was enterprising and successful. He had 20 acres in vines, made wine and sold to good advantage. The land on which the vines grew was covered with stones. One could hardly imagine how they could take root, but they grew and thrived. On our return we took a level road, passing large cotton plantations. The crop in some places was up and had been cultivated; in other places the seed was not yet planted. We passed numerous negro residences, and here were again surprised, for at every house (and sometimes the houses were far apart) such a family of young negroes and negroes were to be seen about the same size, that we looked and looked again for more houses, or some other signs for their production than a negro woman. We should almost think they were hatched, judging from their numbers and small, even size. Every house had its quota, and a healthy, thriving lot they were. It is all nonsense to talk of the negroes dying out there; not as long as there is corn in the crib or chickens on the roost. There were 27 prisoners taken to Little Rock one day when we were there, mostly for petty larcenies, such as chicken-stealing. The white inhabitants wish to break them of that habit, consequently they make an occasional raid on the darkies. As we were driving along we heard the sounds of hymn-singing. We stopped the horses and walked to the log house from whence the sounds proceeded. We went to the rear of the house, or rather double house, with a covered space between, and stoop or rough verandah at the back. There was an assemblage of colored people at their devotional exercises. Their singing was pleasing, and the prayer which followed may have been to them. The main operator yelled and thundered. His words flowed in such rapid succession that it was difficult to catch all. He was kneeling. His head would be at one instant nearly on the ground, and the next erect, about as quick as lightning, and his hands and arms in all directions as quick as thought. He was evidently enraged at some opposition preacher who had opened business in that neighborhood, as he brought many imprecations against him. The other negroes and negroes sometimes moaned, sighed and howled most dismally. You may talk about having seen negroes in Canada. We have seen hundreds of colored people with a kind of dingy look, but in Arkansas they fairly shine like polished boots.

The houses in this part of the country are constructed entirely different to our houses in the north. In fact, they have two houses, one for living in, the other for cooking and working in, with a large covered space between, which is open at the two sides. In this space they take their meals, sit, dance or hold meetings in the warm weather. These openings are necessary, as the heat is too great to live in confined rooms. Some of the negroes build their houses after the same principle, but of logs. The planters' houses are built of brick or frame work.

We proceeded on our journey and called at the house of one of the best market gardeners in this part of the State. But, oh! the soil, the drouth, the lack of moisture or fertility, or proper air! We never dreamed of raising crops under such adverse circumstances as exist at this place—where cotton, corn, the peach tree, vine, wild rose and magnolia trees thrive—where the mocking bird sings. But grass will not grow—that is, grass like

we have; only a poor miserable species called Buffalo Grass, which is worse than any weed we have and not good for anything. Good pasture grass will not grow in this State, and where that will not grow our vegetables will not thrive. Not a pasture field to be seen along the road-side; no grass. The working teams have to be kept in pens or fed corn all summer, or on praires; hay has to be brought from long distances. We never saw a sheep; only a few poor hogs and the most miserable apology for cows, and these at only one place.

It was nearly seven o'clock when we reached Little Rock. We went directly to our residence, one of the most comfortable in the city, hungry as an Englishman after 14 miles ride and long walks up mountain sides, over plantations and attending meetings. But we wanted more food, and went to the dining-room. Not a vestige of supper appeared, nor any symptoms of such—fire out in the kitchen. We saw no hope, so we took another stroll. No cake shop was open, but the saloons were and were doing an excellent business. The negroes and whites were all cleanly and well attired, and all appeared peaceable and quiet. We saw no drunken person while in this State.

We then attended divine service, but very few were found in any of the churches. We returned home expecting a late supper. We talked and chatted till nearly eleven o'clock, but no one said food. We thought we could submit to this and do as others did, but we tell you we were hungry. We realized that that State would not be a happy one for an Englishman. The next day at dinner-time we asked about the customs of that State, and found that no tea or supper on Sunday was the Sunday-custom. We do not agree with that kind of theology at all, at all. Our landlady had been extremely attentive to our requirements, and the best luxuries that the market could afford were procured. Venison in this hot weather, and any vegetable or fruit was on our table. We thanked our hostess for her extreme kindness and requested her not to put herself to such trouble, as we knew she was doing so much to make us comfortable. Her laconic reply was brief and to the point, viz.: "We do not seem to succeed very well. Oh poor unlucky me!"

The State may have advantages, but we have mentioned most of them. From what we have seen we would rather have 25 acres of land in Canada to live on than one thousand acres of the best land that we have seen in that State, and there are millions in it that we do not think will be worth one cent in our life time. We may give you more about this trip at some future time.

Summer Fallowing.

Fallowing has not at any time been so general in this Western World as it has been in Europe, nor is it so much practiced even there as it was some time since. The introduction of turnip culture in Great Britain has rendered the necessity for fallowing less there than when hoed crops were less known. But it cannot be wholly dispensed with. It is especially necessary that heavy, tenacious clay land receive a thorough summer fallow betimes. There are stores of plant-food in the soil that under certain circumstances can only be made available by exposing it as much as possible to the influence of the sun and air. Certain chemical changes can only be effected by such powerful influences, and this, added to the ammonia absorbed from the atmosphere, has been found to produce heavy wheat crops, of superior quality, on land that had been growing wheat for years. As a great object to be obtained by summer fallowing is to expose the plowed soil to the sun, the greater the surface so exposed so much the more is the object accomplished. In order to do this the land

must be plowed and cross-plowed repeatedly during the summer—three to four times at least. The plowing should be thorough, no *bone* left uncut and unturned, and be rough and cloddy; it will absorb the more carbonic acid and ammonia from the atmosphere. The first plowing should be early in the autumn previous, as soon as the crop is removed. It should be shallow, that the seeds of weeds may all germinate and be killed. The second plowing in the fall, deep and rough, to remain exposed to the ameliorating influence of winter. Then, in the summer following, each successive plowing should turn up a fresh layer of soil; and if the subsoil be a hard-pan it should be subsoiled, the subsoil not brought up into the fertile soil, but, when broken up by the subsoiler falling back into its bed.

Wheat grown on fallow commands the highest price in the British market, while the improvement of the land is more than sufficient compensation for the year's rent and the increased labor. The improvements are, an increased power of the soil of absorption of the atmospheric fertilizers; a greater pliability, breaking into mellow soil the hard, heavy clinkers; and a rendering available the plant food that had been locked up in the stiff clay.

It is sometimes found necessary to fallow even a light soil, in order to get rid of the weeds that have from bad farming taken entire possession of the soil. No other means will suffice in some cases to clear land from weeds that rob the crop of the sustenance it should receive. Of these weeds, comb grass, thistle and wild oats are among the worst, the most difficult to clean the land from. The land is to be plowed in autumn and fall, as in the case of heavy clay land. The summer fallowing consists in successive grubbing with a heavy cultivator, followed by the harrow, preventing all growth of weeds. They will, by this successive exposure, be soon killed by our great summer heat.

The Bath and West of England Exhibition.

[FROM OUR OWN CORRESPONDENT.]

EXETER, DEVONSHIRE, ENGLAND,
June 6th, 1879.

The great exhibition of the Bath and West of England Society was held this year in the ancient City of Exeter, the capital of the beautiful County of Devonshire, and according to instructions I now make an attempt to give the readers of the FARMER'S ADVOCATE an idea of what the farmers and others of England can do in the way of agricultural shows. Before proceeding, however, to deal with the present show, a short sketch of the Bath and West of England Society may not be out of place, and I venture to say will be read with much interest by your numerous patrons. This Society, then, was established in England for the improvement of agriculture. It is now in the 102nd year of its existence. Some people seem possessed with the conceit that all the great advancements in our leading industries belong to the present generation, but this Society, for one, was formed for the "encouragement of agriculture, arts, manufactures and commerce," more than a century ago. Its birthplace was the fashionable City of Bath. Although it was the first Society formed in England for promoting good husbandry, that vital art had long before received close, practical attention from many earnest Britons. The man to whom the original idea of the formation of the B. and W. of E. Society was due, was a Mr. Edward Rack, a native of Norfolk, who had come to reside in Bath. Believing that a Society for promoting rural improvements would be a great benefit in

that part of the Kingdom, he set forth his views in the newspapers early in 1777; a meeting took place, and although only twenty-two attended it, yet they went at it with such heart and good will that the Association was formed, which has gone on with its useful work from that day to this. The first President of the Society was the Earl of Ilchester. The first subject which engaged the Society's attention was how to grow corn in the best and cheapest method. One of the first announcements made the second year related to the exhibition at the Society's rooms of a drill plough, which was stated to have been tried by the agricultural committee, and been found to deliver the grain with great exactness and regularity. This was the first implement exhibited in that wonderful series that has since been spread over the world. The Society went on practicing its useful and beneficent labors—prizes were given to promote competition in stock breeding, the produce of implements, &c. The leading agriculturists of the country assisted in its advancement, and the result is that to-day it is a power in the land.

The site of the present exhibition is very pleasantly situated near the old City of Exeter. The show itself is considered a grand success, both as regards exhibits and visitors. The show opened on Monday, June 2nd, and closed the following Saturday. The "great day" here, as in Canada, was Thursday. On this day over 35,000 people visited the grounds. Taking the show as a whole, it was on a much larger scale than the Western or Provincial Fairs of Ontario, but in some departments the latter were far ahead of the B. and W. of E. Society. Here there were 661 entries of live stock, including 123 horses, 88 Devon cattle, 43 Short-horns, 33 Herfords, 48 Sussex, 50 Jerseys, and 38 Guernseys. Of sheep there were 207 pens, embracing 21 of Leicesters, 21 Cotswolds, 14 Devon (long wools), 38 South Downs, 28 Hampshire Downs, 18 Somerset and Dorset horns, and 14 Exmoors. There were 81 entries of pigs, of which 35 were Berkshires. In the poultry department there were 401 entries, including 114 of pigs.

Among the cattle there were some magnificent animals, the like of which your correspondent never saw in Canada. The Devons, as might be expected, make a splendid show. The first honors in this class are awarded to Mr. Walter Farthing, of Bridgwater, for "Lord Newsham," an animal that was first at the Royal Society's show last year as a yearling, and is said to have wonderfully developed since then. He has an immense barrel, a very massive shoulder, his sides are almost as straight as a line, and the hind quarter is also well brought out. The Shorthorns are considered the meanest in character that has been seen at this show for many years. In the class for cows the judges left out of the prize list one of the class, once as fine a calf as ever was bred, which has been destroyed for breeding purposes by being puffed up for show on milk and meal from the days of her calthood—the result of which is that she now looks as though she were rapidly going "all to pieces;" and it is quite certain her issue (should she ever have any that grow to maturity) will be comparatively worthless, in consequence of the injury inflicted on their dam for fashionable purposes. The Sussex cattle are a remarkable collection for size, weight of flesh and improved quality. The Jerseys were conspicuous for their beauty and milk-giving capacity, when fed on a small amount of food.

Among the horses there were some beautiful specimens of careful breeding, especially in the "hunters" class. The west of England is not famous for any special breed of horses. In agricultural stallions the first prizes go to Sussex and Norfolk.

There is nothing particular to be said about the sheep. The Devon long wools are being greatly improved and becoming very popular by the introduction of Lincoln and Leicester strains. At present they are not uniform in character, but by judicious selection and watching a breed of as true a type as the Oxfordshire Downs, and truer than the mixed breeds of Shropshires, may be established.

The exhibition of pigs was particularly noted for the mammoth proportions of most of the animals in the large breed, and altogether the display of "pork" was very fine, far surpassing anything I ever saw in Canada. There has been much discussion of late among Wiltshire bacon curers in regard to the right form of swine for producing bacon for London and other great markets. A meeting will shortly be held to discuss these points.

In the poultry classes the first place was taken by the Dorkings, which were a remarkably fine collection of birds, and included all the prominent and best varieties. Great satisfaction was expressed with the Cochins, which in respect to the black and white descriptions were really a fine lot of birds, of splendid plumage and in good feather. Among the Brahmas the light varieties seemed to be the most popular. In the other classes the show appeared to be no better than often seen at the Western or Provincial Fairs. The pigeon display far excelled anything I ever saw in Canada.

The show of implements was very large and attractive, prominent among them being several American articles. And in each of the latter cases the Yankees took especial pains to put themselves well to the front.

The show of machinery, arts and manufactures, &c., was simply grand, and I regret that time and space will not permit me to present to your readers a few of the leading features. DEVONIAN.

Advantages of English Agriculture.

A short season necessarily brings work in a heap, and brings a generally inferior crop. The advantages which English wheat and oats have, is that they mature slowly, and therefore fill well. Our hot, dry weather in harvesting is favorable for securing the crop, but injurious to its quality otherwise. The most serious loss is the impossibility of making needed farm improvements. Thousands of acres of good land are now under water, and before it can be dry enough to begin underdraining, the plow must be started and all hope for improving it be lost for this year. In the fall, this soil will be so hard that it will be one-half more expensive to dig the drains than it would be now. Much underdraining is done in the fall, because then is when the land is being fitted for wheat; but in most cases, it would pay better to hire extra help and do the work the spring before. It is a mistake to suppose that underdraining is not needed for spring grain. Both barley and oats are less hardy against stagnant water than wheat, and the only reason why the latter is so badly injured, is that its stagnant water often comes when the soil is alternately freezing and thawing, heaving the wheat roots out.

A correspondent of the Indiana Farmer tried four different fertilizers for melons—poultry droppings, well-rotted cow manure, barnyard manure and old bones (gathered upon the farm and reduced by placing them in alternate layers with ashes the previous year), mixing all liberally in the different hills, which were eight feet apart each way, and he says:—"Such a crop of melons as came from the hills that had bone-dust I never saw before."

Mr. J. Hapgood, Shrewsbury, Mass., favors shallow setting of asparagus roots; if placed, as some advise, eight inches below the surface, it "makes the crop one or two weeks later." He further maintains, in the American Cultivator, that he has also "found that the idea that salt is useful to this plant is mere theory, like the trenching system."

Stock.

Dangerous—Infectious Stock Diseases

We have done our duty. We gave due notice to our Government as soon as we saw the Foot and Mouth Disease in stock in Canada; we also gave due notice as soon as we saw the Hog Cholera existing in hogs in Canada; and we also raised the warning voice about the danger we were in of importing Pleuro-Pneumonia from the States.

Our Government, the Government organs and officials have very improperly attempted to show that our information was not reliable, and resorted to very mean, contemptible and disgraceful means to impress such opinions on the farmers of Canada and on the inhabitants of Europe.

The National Live Stock Journal, of Chicago which journal is the highest authority in the U. S. in regard to stock, devotes nearly three pages in the June number under the heading, "Bovine Lung Fever (Pleuro-Pneumonia contagiosa)." The article is written by Prof. Law, the highest veterinary authority in the States. He first traces the disease from its first importation into the States in 1858; he describes the disease, shows what has been done to try to exterminate it, and shows that the disease has been transmitted by herdsmen from one drove to another; that it has also been conveyed by manure to different herds. We extract the following from one part of the article:

"BUT THIS IS NOT WHAT TROUBLES US.

"The pestilence may devastate the stables of the New York and Long Island dairies at its own sweet will; it may spread over the State of New Jersey until the inspectors allege that in many counties no less than 20 per cent. are infected; it may ravage Eastern Pennsylvania, Delaware, Maryland and Virginia, and may invade the District of Columbia itself—all this and much more may befall us; we may remain month after month, and year after year in the most imminent danger of having the affection carried out to our Western plains, whence we could never eradicate it—this concerns us but little; but that England should for a moment suppose that we harbor such a disease, is a scandal and an outrage, and must be repudiated and denied with all possible vehemence. Our own veterinarians, who have studied the disease both here and in Europe, and who have acquainted themselves with the history of both continents, are to be silenced, that we may listen complacently to those who sit composedly at a respectful distance—at Toronto (Canada) and Edinburgh (Scotland)—and without personal examination of history, progress, symptoms, or lesions, pronounce oracularly that we 'are not dealing with the contagious pleuro-pneumonia of Europe.' This action is altogether too much like that of the hunted ostrich, which buries her head in the sand in vain hope of warding off her fast-advancing fate.

"Many American writers seem to lose sight of the fact that if it were established that the cattle on board the Ontario and Brazilian suffered from lung fever, it is far from being proved that this disease exists in our Western States. It would be ample ground, it is true, for a searching investigation through our Western herds, but no proof at all that these herds were really infected. But to return to the infected districts in the East. Any one who will consider for a moment must see that the opinions of Professors Williams and Smith, as to the nature of a disease they have never seen, and the descriptions of which have come to them only through newspaper paragraphs, are not worth the paper they are written upon. It must be evident to all that men who will found their opinions on such a slender basis are very unfit objects of public confidence. Seeing Prof. Smith is no further off than Toronto, and that he is so deeply interested in this disease, why did he not come to New York in person and satisfy himself as to the true nature of the malady, rather than hug his ignorance and publish an implied censure on the veterinary authority of New York, whose ability I do not for a moment believe that he doubts. By paying attention to what has been already published by the New York authorities, he could have ascertained the truth; but he has chosen to persistently shut his eyes and call for an experimental

transmission of the disease by cohabitation, as if that were not seen and demonstrated every day, and on a larger scale a thousand-fold than could be done in a few experimental animals under the eye of an expert. For the sake of men who persistently avoid the light, I would never have lifted my pen; but for the sake of the many readers of the Journal who might otherwise be misled, I shall furnish a few examples illustrative of our daily experience with this disease."

Those who desire to know more about this disease would do well to send and get a copy of the June number of the above-named journal.

We have not heard of a single instance of Pleuro-Pneumonia ever existing in Canada. We are in hopes that the Foot and Mouth Disease has entirely died out; we have not heard of a case for nearly a year. The Hog Cholera may also disappear in the same way; we have heard of no new outbreaks of it for some months. We believe that truth and facts should be made known, and then we can be on our guard if danger assails us.

The Dutch Dairy.

HOLLAND CATTLE—THEIR QUALITIES AND BREEDING

At a recent agricultural meeting in Bay City, Mich., a very interesting paper on the "Cows of Holland" was read, written by Hon. James Birney, U. S. Minister to the Netherlands. The following is a synopsis of the same:—

Holland is the paradise of cows, but the term "Holstein" is a misnomer, and the "Holland" or "Dutch" cow is rarely superior to the "Holstein." The Holland cattle are regarded as the best known for yield of milk and cheese making. A dairyman who carries on a large business near Utica, New York, gives the result of his experience that the milk the Holland cows yield is greater in quantity, richer in quality, and better adapted for butter and cheese making than that of any other species he has knowledge of. The genuine Holland cattle are almost invariably white and black. Some few of them are of a mouse or mottled color, but they are regarded as a depreciated or half-breed stock. One family of them is so definitely marked that when seen at a distance one would suppose they were black, with a perfectly white cloth bound round their bodies. In travelling all through Holland scarcely a specimen of any other color can be seen.

The Holland cattle are thoroughly short-horns, more so, indeed, than the Durham. The shape is very symmetrical, with long, straight back, small head, and trim limbs. They are of large frame. In disposition they are notably gentle and manageable. Their pastures are not enclosed by fences, but by shallow ditches. Over these they rarely leap.

During the pasture season they run upon the lot set apart for them. During much of the time they are clothed with a blanket of hempen cloth, which defends them from the fogs of the night, and the flies of mid-day. They are milked with punctuality. When the milker takes his seat, with a cord always at hand he ties their hind legs together, and with another attaches their tail, so that it cannot be whisked about. Over the large vessel into which the milk is poured, when the pail becomes full, a fine strainer is placed so as to catch all foreign particles. The most perfect care is taken of the lots in which they feed. Every few days a man will go over them with a shovel or rake in hand, and scatter the droppings, and supply the land with some fertilizing substance to keep the grass in healthy vigor. They practice here upon the theory that it is just as necessary to feed to land as it is to feed animals. During the winter the cows are confined in brick houses, constructed to afford the greatest possible comfort and convenience under the same roof, and at one end of the building the dairyman or herdsman has the residence of his family.

Between the residence and the stable is a large apartment used for the care of the milk, and the cleansing of the vessels in which it is conveyed to market. It is supplied with a stove and a well of water. The stable is oblong, with a hall through the centre, from which all feed is supplied, the heads of the cows on either side being turned toward the centre. The flooring is of brick, and the cows stand upon a brick platform five feet six inches in width. Immediately behind this is a gutter of the depth of eighteen inches, which

catches all excrements; still back of that is an aisle or walking place. The gutter is thoroughly cleansed every morning, and a stream of water made to pass through it. The manure is all taken to vats in the yard, and preserved for use.

Above the rear of the cows a pole or cord is extended through the entire length of the stable. To this the tail of each cow is attached in such a way that when she lies down it is always suspended sufficiently to prevent its contact with dirt. Sand, being plenty and cheaper than hay, is used for bedding. By this arrangement the cows are kept entirely clean, and the milk never takes the odor of the stable.

The watering, feeding and milking of the cows is done with the regularity of clock-work. The trough before them is filled three times during the day with clean water. They are fed frequently, and no more than they will eat in a short time. This mode is preferred, because it gives them intervals for rest, and their digestion is better if their stomachs are not overburdened. They are treated with kindness and tenderness. This induces contentment of disposition, and keeps them from becoming nervous and feverish. This greatly aids the secretion of milk. The Hollanders are impressed with a belief that if they keep their cows warm their product of milk will be much larger than if chilled by cold air. There are grated openings in the upper part of the walls for ventilation, but they are not large. The walls are thick, and the loft above filled with hay. And so it happens that if you enter one of these stables, coming from the clear air without, you are almost suffocated with its extraordinary heat and closeness.

This is the principal objection to their system. Nor do they yet seem to have found it out. Every now and then an alarm is raised throughout the country that some species of lung disease has shown itself among the cattle. The neighboring counties hear of it, and inhibit by stringent laws their importation. The State Inspectors are summoned, and wherever they find a herd with the symptoms of disease they slaughter the whole of them, and the State pays their appraised value. This is a very expensive process. The moment I entered one of these large stables, and felt the temperature of the atmosphere breathed by these cattle, and perhaps breathed more than once, it seemed to me that nothing short of a miracle would prevent lung disease. When spring comes the cattle are turned out as clean, as neat, and with hair as smooth as when they went in from the green pastures.

It is a recommendation of these cattle that when they become farrow, and cease giving milk, they take on flesh rapidly, and soon fatten. As meat brings a higher price in Holland than any other article of food, on account of an excise tax imposed upon its consumption, cattle are sold at about double the rates at which they may be bought in America.

Green Fodder in France.

M. Goffart, the discoverer of conserve green forage for stock, is in the habit of publishing annually a statement of his experiences. This year his remarks are not less valuable, because they are an exception to an uninterrupted success. The system has not been at fault; the plan has suffered from bad weather and questionable seed maize. His neighbors were not more fortunate. While 40 tons per acre of green maize were yielded, in some cases not twelve were obtained. This latter return is simply ruinous, when the heavy expenses of tillage and manure are borne in mind. The choicest seed maize comes from Nicaragua, but it never arrives in time, and is generally injured by the weevil. New York next supplies the best seed, provided it be transported in barrels, to avoid heating; failing both, the ordinary horse-tooth maize is to be preferred. There is no longer a question that the best method to preserve as well as to employ the forage is to cut it before treading it into the trench or pit. A machine worked by hand is not to be thought of; a cutter driven by two horses ought to chaff the green maize at a cost of six sous per cwt., while an engine will do the work for two-thirds less. It has been ascertained that a trench eight feet wide, and covered with earth, will lose twenty per cent. of its contents, while the loss will be only nominal if the trench be made double the width. Another point to be noted: there is a growing disposition among farmers to employ nothing but this trench forage all the year round. Generally one man, at 2½ francs per day wages, is expected to care for 12 head of cattle, fed on beets, turnips, hay, &c., to cut the roots and provender.

The Old Shorthorn Bull Hubback.

The bull Hubback, regarded in his day by Mr. Bates and many other breeders of note as the great regenerator of Shorthorns, was calved in 1777, and was sold with his dam in the Darlington market. The purchaser re-sold the calf that afterwards became the famous bull to a blacksmith, for one guinea, as he was taking the cow home. The blacksmith gave the calf to his son-in-law, and he was brought up in the lanes at Hornby, about eight miles from Kirklevington. He changed hands several times before he went into the Colling herd, which was not until 1783, when he was six years old, and then only at the suggestion of Mr. Charles Colling, to be used by his brother Robert and Mr. Waistell until a calf which they were raising should be large enough for service. As soon as this time arrived Hubback was discarded, and Charles Colling bought him at eight guineas, the same that they had paid for him. His color was a yellow-red and white, and he was called "the little bull." He was light-boned, very smooth, low, and a remarkably quick feeder; with clear, waxy horns, and a good coat of hair. As a sire he was peculiarly impressive; and Mr. Bates, who held him and his blood in the very highest estimation, says that "had it not been for the bull Hubback and his descendants the old valuable breed of Short-horns would have been entirely lost"; and that no stock ought to have been put into the Herd Book that did not trace to this bull. When he was ten years old Mr. C. Colling sold him to a man named Hubback, for thirty guineas, and from him the bull took the name which has become so famous in Shorthorn history.

Mr. R. Colling never appreciated the merits of this bull until after he had sold him, and then he determined to retain all of his get that he yet possessed.—[National Live-Stock Journal.

In the above you see an account of the foundation of the present Shorthorn race, that are in demand in all parts of the world. Perhaps some of our careful breeders of this generation may be building up a name for a class of animals that will be in demand after the present owners are departed. There are other valuable breeds of animals besides Shorthorns. There are animals that give more milk and of better quality, and there are animals that fatten easier; also animals that produce a better quality of beef than the present Shorthorns do. Who will be the lucky man that can combine these qualities in a greater degree than they are now to be found? Care, selection and judgment have done much, but nine-tenths of our farmers have not as yet paid sufficient attention to the care and selection of their stock; too many will sell their best and be content with the worst they have.

Heavy Pigs, and How They Were Fed.

I sold on Friday, January 12, 1877, nine pigs that were just seven months and three days old, which weighed 2,730 pounds—an average of 303½ pounds each. These pigs were pure Poland-Chinas, farrowed the 9th of June, at a time when clover and other grasses had got a good start, to which my sows had free access. This kept their bowels in proper condition, and greatly increased the flow of milk. They also had (after the pigs were from a week to ten days old) all the dry corn they would eat up clean twice a day, and as much good, clean, cold water as they would drink. This the sows had, and no more. The pigs were weaned at twelve weeks old. As soon as they would eat I commenced feeding them soaked corn in a shallow trough, placed where the sows could not get to it. This was kept up until my new corn got quite hard, after which I fed them new corn enough to keep them growing nicely until the 16th of November, when I shut them up in a close pen, provided with a good, warm, dry nest, and a small feeding floor. I fed them all the corn they would eat twice a day, and as much warm drink as they wanted. They were kept in this pen until marketed. I am satisfied that they could have been made to weigh considerably over 400 pounds each at ten months. I am well aware that the above pigs were not really an extraordinary lot, but they were good ones. I made that lot of pigs pay me about \$1.85 per bushel for the corn I fed them, and to the sow while she suckled them.—[W. I. Cram, in Live Stock Journal.

Hogs—Feeding for Health.

A writer in the Western Stock Journal says:—
"One year ago last September my hogs were attacked with disease of some kind, resulting in a loss of eight or ten old hogs and about forty spring pigs. The first symptoms were costiveness, or perhaps in others looseness; they would lose their appetites and probably linger a week before death. By dividing them into small lots, feeding ground oats and rye in small quantities, with a little medicine in slop, such as black antimony and chloride of lime in equal parts; dose, two teaspoonfuls in pail of swill twice a day. I also used kerosene, soft soap, soda, etc. With this treatment I succeeded in saving quite a number. After losing so many Polands and Berks, the only way I could see to profit by it, was to be more attentive to their wants, feed more oats and rye to keep their digestion right, provide more comfortable sleeping places and keep the different grades separate. If hogs are properly cared for in this way very little medicine would be needed. Hogs should always have access to salt and ashes."

Remedy for Engorgement with Meal.

Having lost stock (cattle) through their having obtained access to the meal bins, and having never received satisfactory answers to my inquiries through agricultural journals as to the proper method to be pursued in their treatment, I give you an account of the successful treatment of my last two cases. When feeding my stock, one of my cows slipped into the open doors, and into a back entry, where stood the meal chest. She was not discovered until she had fully gorged herself. When found she was put into a stable and given six drops of aconite, first tincture, in a little water, and then was immediately given half a teaspoonful of powdered mandrake root, dry, on the tongue. By night she was voiding meal freely, and was let out. Two days afterwards I gave her about half a bucket of water. On the second day she was confined in the stable, and was given sufficient water to satisfy her at the close of the third day, though she required very little—about a bucket and a-half, I believe.

The other case was one in which a cow obtained access to threshed wheat during all one day. I knew nothing of it until the next morning. I then gave her ten drops of aconite and half a teaspoonful of powdered mandrake root, on the tongue. She began voiding wheat that night, and continued for four days, though of course less appeared during the latter part of the time. I gave her a second dose of aconite on the evening of the first day, and two doses the second day. I also gave her about a quarter of a teaspoonful of the root, the mornings of the second and third days, though I cannot say it was necessary. On the second day, about noon, I gave her half a bucket of water, and the same quantity once each day, as long as she was kept in the stable. I have heard of cattle being deprived of water for a week, under like circumstances, but where they seem to be doing all right I like to give them a little. In neither of the cases reported was there any permanent shrinkage of the flow of milk, though they give very little while getting no feed and little water. I hope any one so unfortunate as to be obliged to have recourse to some such measures, will give the above a trial and report the results. Because six or ten drops of aconite do good, do not give twenty-five or thirty, thinking that quantity will do more good. Any one disposed to give such doses can satisfy himself they are not required by dropping five drops into half a glass of water, and taking a spoonful of the solution.—[Country Gentleman.

During the week ending May 10th, both fresh meat and live stock from the United States and Canada, in large quantities, reached Liverpool, though the absence is still noted this season of the large consignments of cattle which arrived at the commencement of last summer. The totals were 4,727 quarters of beef, 1,529 carcasses of mutton, and 175 pigs. Of live stock the collective consignments were 370 head of cattle, 2,368 sheep, and 1,050 pigs, which was a marked increase as compared with the previous week.

The Apiary.

Artificial Swarming.

BY C. F. D., NILE, ONT.

You all know how annoying it is to have a hive of bees that will not swarm, sometimes hanging in clusters in front of the hive, idle for weeks together, during our very best honey season, when they should all be at work. If you have your hives made with division boards in them, as all hives should be, that they may be enlarged or diminished at will, all you have to do is to slide back the division boards, and put in empty frames, or what is much better, frames filled with artificial comb; then take your smoker and drive the bees into the hive. It is also very unpleasant to have bees that will swarm too often—swarming themselves to death, as it is termed—casting so many swarms that they become so depopulated that they either fall a prey to the bee moths, or they are not fit to keep over winter. As you are aware, the great secret in bee-keeping, is strong stocks, therefore we return our late, or after swarms, to the parent hive, or winter them with other weak stocks, or they may be built up to fair colonies by giving them frames filled with artificial comb. But to avoid any trouble of this kind, you can divide your bees by making artificial swarms, and the method we give here gives us colonies that are far in advance of natural swarms. Take a frame of brood with the adhering bees, and the queen, and place them in the centre of an empty hive, then fill the hive with frames of artificial comb, or comb foundation, as it is usually called, and set it where the old hive stood, and shake off the bees from three or four frames from the old hive, at the entrance of the new one, and remove the old hive to a new location, a few yards away, and put in a frame of artificial comb in place of the frame of brood removed, and give them a young, fertile queen in the new hive; then there will be no danger of bees returning from the field to destroy the new queen. But the question naturally arises, "how are we to get those queens? Will it pay to buy them, or can I rear my own queens?" Well, unless you have proper means for queen rearing, and rear a large number at a time, it will not pay to rear your own queens, especially at the exceedingly low prices for which Italian queens can now be purchased, the prices being from \$1 to \$3 each. For the best methods of introducing Italian queens, see June number of the ADVOCATE, and my circular on bees. The question is often asked, how long will it take to Italianize a colony of bees? By introducing an Italian queen, the colony will become Italian as soon as the old bees die off, which, in the height of the season, will be from three weeks to two months.

In Bretagne, France, horses are fed on parsnips instead of oats, and no complaints are made as to falling off in condition. M. Le Bian feeds his carriage horses exclusively on parsnips, and the animals that he now exhibits in Paris are superb. He gives each horse forty pounds of the roots daily, distributed in three feeds; the expense of cultivating one hundred weight of parsnips is twenty cents. Large quantities of "parsnip-fed pork" are made by the thrifty farmers of the Channel Islands, and a writer, speaking from a whole season's experience, states that though less firm than that fattened on barley, the meat is infinitely sweeter and more delicate in flavor. He also recommends this useful root for cattle and human kind.

The Grangers are having some more experience of the changes and chances of Trade. Their Napanee grain agent, Mr. L. A. Carscallen, has been speculating in outside matters, and failed to meet his engagements. Mr. McConnell, a farmer of the neighborhood, has therefore issued a writ of attachment in insolvency against his estate.—[Monetary Times.

Dairy.

Keeping Butter in Summer.

In making a few notes upon that subject we shall try to keep in mind, not the improved refrigerators of the town and the city, but the conveniences of the country, and give our observations on the causes of poor butter, so far as produced by storage.

A majority of summer butter is poor because every condition of good butter making is violated from the time the prospective cow is dropped till the last act of packing and storing the butter; and such butter, with the best storage in the world, would be inferior. But assuming that the butter is good, the question of summer storage upon our prairies is the one before us. A writer in the Country Gentleman makes a strong point on the salting of the butter and the vessel used in packing. The lady says:—

Wood or stone makes the best vessels for packing butter, but opinions differ as to which exceeds the other. White oak firkins soaked for two days in sour milk, then washed out and soaked one day in strong brine, and then rubbed thoroughly with salt, are the best, according to my mind. If E. R. will pack the butter in such vessels after he has worked out every drop of buttermilk, and salted by the following receipt, I can assure him that he can keep his butter from June to June as sweet as when first made:—

To every pound of butter add two heaping table-spoonfuls of the finest dairy salt, the same amount of granulated white sugar, and a quarter of a tea-spoonful of saltpetre, pulverized very finely. These ingredients can be mixed together, in this proportion, in large, wide-mouthed bottles, and kept for use. After the churn has done its work, add the mixture, and turn the crank in reversed order for four or five minutes. The butter is thus salted without touching the fingers to it, and the housewife needs only to lift it out with a butter paddle and pack it tightly in a firkin, or else form it into tastefully stamped cakes all ready for the table. The sugar is quite as essential for the preservation of butter as the curing of hams; and every one knows that sugar-cured hams are the finest in the market. The saltpetre can be omitted if the butter is not desired for winter use.

C. C. Bull, of Rock Falls, Wis., at the last meeting of the Illinois State Dairymen's Association, discussed the question,

Can Summer butter be so handled and packed that it will retain its freshness and sweetness for winter use?

Whether butter can be thus preserved so as to be good, sweet, old butter, without rancidity or bad flavor, is a question which we believe can be answered in the affirmative, and we propose to discuss it under the heads, viz.:—As to the place of storage, the package, and the contents.

1. As to the place of storage:—

The first requirement is that it must be a cool place. A cellar or other apartment the temperature of which rises above 60 degrees Fahrenheit, we do not believe will keep butter well under any conditions. Most cellars show a temperature of 65 to 70 degrees. A deep cellar protected from the hot rays of the sun, and remaining uniformly below the temperature of 60 degrees, sweet and properly ventilated, is without doubt one of the very best places of storage for butter.

2. The package:—

Butter, to remain sweet, no matter what the temperature, must be preserved from contact with air. In mid-winter, even, butter exposed to the air will become bad; in Summer this will occur in much less time. The perfect butter package, therefore, will be air and water tight. The butter must be immersed (surrounded) by very strong, pure brine—or possibly, as some recommend, by strong brine with a little saltpetre and refined sugar added. It matters little what the shape, size or material of the package is provided this object is attained. As it was intimated at the beginning of this paper, butter can only remain sweet, and must be expected to lose a certain aroma and freshness of new butter. No long kept butter can be expected to remain in the class of fancy butter. A fancy or expensive package, therefore, is hardly in place in handling butter of this grade unless it is really better than a cheaper one, and is so accepted by the trade. Now we know of no style of pack-

age so acceptable to the trade in butter, all things considered, for accomplishing the end desired, than the old style oak firkin. Properly prepared by soaking in hot brine, afterwards in cold, and handled in the approved methods, we consider it quite as reliable as any other, and decidedly cheaper than any other we know of. We express this opinion with our present knowledge of the trials made in this direction.

3. As to the contents:—

The first thing to be said under this head is that butter to keep must be good butter—butter well handled from the milking to the packing—and nothing but butter. It is well understood that rancidity comes from that in the butter which is not butter—from the buteric acid which develops chemically, and the development of which is greatly hastened by bad handling; by the presence of caseine, buttermilk, water or other foreign substance not butter.

The shallow, poorly drained and ventilated cellar is the common place of storage on the prairie; and if this certainty is not enough there is added a taint of cabbage and onions. Driven to desperation, some resort to hanging the butter in a well, a few have good springs. The important item to the farmer for butter purposes is a deep cellar, not less than twelve feet, sides of stone and bottom well concreted. Windows should be arranged to give good ventilation, open at night and closed during the day. Such a cellar will vary but little in temperature. Next to the cool, dry cellar in a spring house, and some prefer this to the cellar, a spring house can be cheaply constructed near the well, and with a wind-pump would be easily operated. Where there is considerable descent from the wall the spring house may be walled with stone and covered with dirt, making it bank house, with tile pipes for ventilation. All things considered, the deep, dry cellar, well ventilated, is the best for butter.

Cattle for the Dairy in England.

A correspondent of the London Agricultural Gazette writes to that journal in response to a call for advice and information on the above subject:—

In reply to the inquiries of J. C. W., I have no doubt he will be able to improve his dairy greatly by the use of a pure Shorthorn bull of good shape upon well-selected cows. These cows may be selected in any of the principal cattle markets in the north of England where Shorthorn dairy cattle are generally kept. As they are brought for sale either newly calved or springing for calving, it is not difficult to judge of their milking capabilities. The extension of the milk trade has caused a greater supply of newly-calved cows, &c., to be provided for every month in the year, and on many farms where dairy cattle are bred they are commonly sold when in their prime, just before producing their second or third calf. There are many strains of Shorthorns which are specially noted for milking qualities; I cannot undertake to say which is best. I have used several bulls of the old Garne blood, which answered my purpose very well, and the stock of which have proved satisfactory milkers. Some most useful information with regard to dairy farming has appeared in past volumes of the Journal of the Royal Agricultural Society. Mr. Morton's paper on Dairy Husbandry, and the report of Mr. Jenkins on Dairy Farming in France, which contains some very interesting remarks upon butter making, are both well worth studying. The yield of two gallons each per day of the ten cows of J. C. W., all the year round, is not an unsatisfactory return, if the cows are not changed, as comparatively few cows give more than 730 gallons per annum. The value of the bull calves for rearing, and of the dairy cow herself when barren or no longer desirable for milking, are important considerations in favor of a Shorthorn dairy herd. I saw in the market yesterday a number of pure-bred Jersey steers, two years old, for which the breeder was asking £10 each, and failed to get an offer for them. They had been fairly well reared, and if they had been Shorthorns, with the same rearing, they would have been worth nearly double the price. The owner avowed his intention of rearing no more Jersey steers. Four out of the five Jersey cows which I have purchased in the last ten years have cast calf or proved barren while still young, and when sold fat realized less than two-thirds their value if they had been in calf.

A Home Market for Cheese.

To stimulate and secure an increased home market, it is important that the factories should commence in their own neighborhoods to make and introduce just such cheese as will meet the wants and the prejudices of their respective vicinities. We believe we only state what is well known to be the fact, that in most cheese factory neighborhoods, not one family in ten have cheese upon their tables a dozen times in a year; and not unfrequently what they do have, consists of a refuse lot too poor to send to the city market. One obstacle in the way of a general introduction of American cheese in our families, consists in the large sizes which are usually turned out by our factories. We have, heretofore, and on several occasions, urged the making of smaller sizes, say from 10 to 12 or 14 lbs., instead of from 60 to 90 lbs. This want we have heard expressed again and again in various sections of the country. We are not ignorant of the objections which are made to the manufacture of small cheeses, but we think they might be overcome so that they would be more than balanced by the benefit to the community. If our cheese makers would turn their attention to this subject, and diversify their products in the manner indicated, both for the foreign and home markets, there is hardly a doubt that the products of the dairy may be increased to double the present amount, with a steadier market, and at increased profits.—[American Dairyman.]

The Canadian authorities have declined to remove the prohibition imposed upon the importation of American cattle into Canada, and have extended the time until Sept. 6, if not sooner removed by special orders. This leaves Canadian buyers of Shorthorns at the late Chicago sale in a "bad fix."—*Prairie Farmer.*

The *Whitcomb Review*, in quoting the wager made by Sir Roger Throckmorton, "that between sunrise and sunset a coat could be made for him out of wool from the back of a sheep," and which he won, adds: "An Austrian clothier has done all this in eleven hours, so that he really has outstripped the Berkshire baronet, who allowed himself from 4 a.m. to 9 p.m."

A slop made of corn and oats, ground in about equal parts, with a little oil meal added, makes the best food for the sow while sucking, to increase the flow of milk; and this, with clover pasture and plenty of soaked corn during the summer, will promote a rapid and healthy growth of the pigs.

Intending exhibitors to the number of 651, including 24,000 feet of space, have applied for the coming exhibition of the Royal Agricultural Society, Kilburn, England. The machinery in motion will be a mile in length, and the exhibit of seeds, roots, manures and feeding stuffs fully half a mile, if extended.

Professor Riley says that since his connection with the Department of Agriculture at Washington there have been sent to him four kinds of patent bandages for trapping the codling-worm, but after examination he cannot find in any of them any advantages over the simple paper bandages recommended and used years ago.

One of the chief causes of pleuro-pneumonia in cattle is believed to be a sudden change of temperature to which the animals are exposed. But on the other hand, if confined to warm barns, attention to ventilation must be given, as a putrescent atmosphere is very injurious, and one of the sources of disease.

It is said the leaves of mullein scattered among the corn in the crib will effectually preserve it from the ravages of rats, and that corn soaked in a solution of sulphate of iron (copperas) previous to planting will not be troubled with moles.

One of the agricultural resources of Texas is bones. A San Antonio firm has shipped since July 8 3,333 tons to the Northwest, where they are manufactured, and thence go East to be used for fertilizing purposes. The price paid to the San Antonio shippers was \$7.50 per ton.

The Drying Room.

The accompanying cut represents a drying room at the factory of Mr. H. Wall, in the township of Westminster, about three miles from this city. This one was recently constructed, and we have yet to hear of a better on this continent.

It is a frame building, painted white, having green Venetian blinds covering the windows when necessary. It is 26 feet by 50, 10 feet high in the clear; it stands on posts 5 feet high. This gives room enough to have the heating apparatus below the floor. The heat is to be conducted in tubes along the floor under the cheese shelves when the weather is too cold, to ripen the cheese properly. Ventilation is also admitted through openings in the floor; two openings are in the ceiling and two proper ventilators are on the top of the building.

This building cost \$500; the factory, with its appurtenances, cost \$1,000. One acre of land was purchased on which to erect them for \$150; it is a corner lot. A stream of water runs near the back end of the building. The whey from the factory is to be conveyed in a tube to a field on the

Cheese.

The cheese market looks bad, but we hope for better prices "by-and-by." We again urge on our dairymen to deliver good milk, and the making of only the *finest* kinds of cheese. Any large quantity of poor cheese now pushed on the market would be ruinous. We must conquer the situation by the *FINEST* goods.

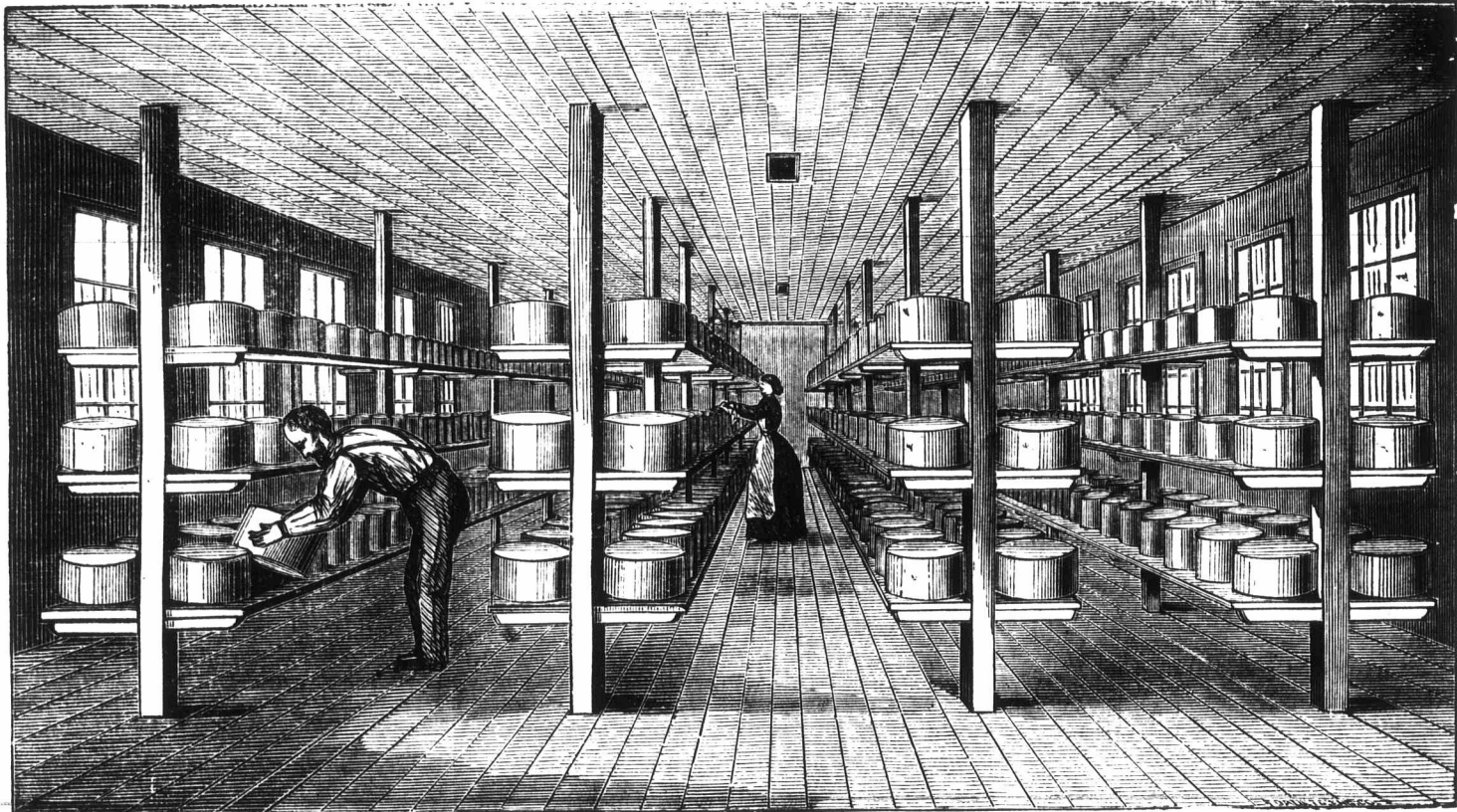
"Firm, Fat, Flaky and Fine Flavored."

A cheese-buyer on the Utica market to us, the other day, "the first dealer I ever bought for" came more about cheese than I ever learned before since. His unvarying order was: "Buy firm, fat, flaky, and fine-flavored cheese." Here it all is, in a nut shell, and with an alliteration that helps to impress it on the mind—"firm, fat, flaky and fine flavored." Such cheese as this will always find a market and a consumer, if any will, and there is money in it if in any. In these times, when prices are low, markets are dull, and consumption is slow, something needs to be done to stimulate and give impetus to the dairy business. If low prices and fine quality will not increase consumption, what hope is there for the dairymen? There is certainly none in inferior goods. One of

Veterinary.**The Glanders—Another Warning.**

We clip the following from the Agricultural Gazette (England) another very significant item illustrative of the contagious character of this loathsome disease:—

This frightful plague has long been known to be in London, and its effects too. It is not above a year or so ago since an English country gentleman whose life was a precious possession, not only to himself, but to his servants, tenants, friends and family, suffered in the same way, and from the same cause. He found himself suddenly attacked—after he returned from town—by symptoms which he could not explain, and to which his country medical advisers hesitated to give a name. A return to London to consult a prominent physician became necessary, and the interview elicited the following statement:—"Your disease is the glanders; I have had half-a-dozen similar instances in the last twelve months. You cannot possibly recover, though you may live till winter." A most searching review of all the occurrences of the previous few weeks revived a recollection of a



DRYING ROOM AT THE FACTORY OF MR. H. WALL, WESTMINSTER TOWNSHIP, ONT

ther side of the stream of water, thus avoiding all bad odor that might arise from the souring of the whey or from the pig pen.

With these plans we believe any carpenter can erect a factory and cooling room. The majority in use on this continent are not as good or as expensive as this. It will be the duty of this journal to attempt to keep its patrons posted on the best appliances for making butter and cheese, and to furnish the best information we can procure in regard to the markets. If any butter or cheese-maker or dealer in any part of the world can or will give better information regarding this important branch of our industry than this journal has done and is doing, we should be most willing to pay a better sum for such information. If erroneous plans or erroneous information are given at any time, the pages of the journal are open to the public to correct us; no one is infallible. Those of our patrons who favor the public with useful information are doing good to their fellowmen; those who withhold useful hints or avoid open discussion are not always the most useful members of society.

the causes of the present depressed condition of the dairy business is inferior products, both of butter and cheese. There has been a failure to place before consumers such a palatable article as to induce the habit of free consumption, and many have learned to get along with a moderate amount of butter, and to nearly or quite avoid the consumption of cheese. Whereas, in all these years, they ought to have learned to consume dairy products to the maximum amount, and to regard them as necessities instead of luxuries. In permitting people to learn to dispense with cheese and retrench in butter, the dairymen have made a grave mistake, and the cause of this mistake may be attributed largely to the improper use of the skimmer in cheese manufacture, and to careless making and packing in the butter dairy. It will take years, and perhaps the education of another generation, to overcome the evil. But the only safe and sure road to pursue is the manufacture of better products. Whoever puts none but fine goods upon the market, not only has an advantage in price, but is encouraging consumption and preparing the way for a larger demand and better prices for others as well as himself. Therefore, amid the gloom of the present and the uncertainty of the future, our advice to dairymen is to put upon the market only "firm, fat, flaky and fine flavored" cheese.

drive in a Hansom cab to the mail train, and of some offensive foam having been driven in by the wind from the horse's lips to the face of the passenger. How could this contagion have possibly been avoided? and what terrible far-reaching misery, and how many broken ties ensued from an occurrence which, but for combined greediness and neglect, never could have taken place! To allow mad dogs to roam the streets would be a monstrous wrong to the community, and to prolong the existence of a glandered horse is even worse.

REMEDY FOR BLACK-LEG.—John Railbark, of Iowa, cured the blackleg in his calves by putting copperas in the tank where they were compelled to drink. Prior to this he had lost some twenty calves, and the symptoms were rapidly developing in others, but were immediately checked, and the entire herd speedily recovered.

Half-drachm doses of powdered sulphate of iron (copperas) mixed once daily amongst the food, has been recommended to be given to cows that have previously aborted. It is thus given during the month preceding and the month following the period of their last abortion provided, of course, that they are in calf again. The use of copperas for cows that have not previously aborted is unnecessary, and may do injury.

Garden and Orchard.

Training Trees.

When at the International Exhibition in Paris, France, last year, we saw trees trained in various forms, some illustrations of which we have given you. We now give you two of the most remarkable. The church (fig. 1) shown here was the most perfect model of training and pruning an evergreen we have ever seen. The spire and vane were all of real, live, growing evergreen. Even the porch was cut out and trained in the inside; the eaves were also projecting. What time and care it must have taken to train and keep this model of evergreen in such a state of perfection! There was not one black spot about it. An artist could not have drawn or constructed a building more complete.

Fig. 2 represents a grapevine. This vine was dead and brought in a dry state. Every one

of these angles where the wood crosses were grown together as firmly as of one piece. In our last issue we gave you some instructions how this work might be done, and for what use it might be applied. We hope some of our young friends have made a few improvements during the past month; perhaps it would not be too late even in the early part of this month, but you would not be so sure of success. You may attempt the pruning of an evergreen at this season.

Rustic Garden Fence.

H. M., Oakville, Ont., asks for a plan of rustic fence for his garden. There are so many plans that each must follow his own inclination. As to pattern, we give you this one (fig. 3). We do not say it is the best, but it has a neat appearance.

SOOT TEA FOR ROSES.—Get soot from a chimney or stove where wood is used for fuel, put into an old pitcher, and

pour hot water upon it. When cool use it to water your plants every few days. When it is all used, fill up the pitcher again with hot water. The effect upon plants, especially upon roses that have almost hopelessly deteriorated, is wonderful in producing a rapid growth of thrifty shoots, with large thick leaves and a great number of richly tinted roses. Never despair of a decaying rose bush until this has been tried.

The Queen of Flowers.

The summer was upon the whole not unfavorable to roses. The result was a fair number of flowers of average excellence, and what was of greater moment as affecting this season's roses, fair growth and well ripened. Condition makes all the difference in the ability of plants to resist unfavorable influences.

It is also pleasing to observe how good health and robust growth seems to resist the attacks of disease. Plants crippled by climate are at once attacked and finished off by aphides and other insects, and this in a fulfilment of the general law

highest perfection, they must be shaded from the sun for at least two hours on either side of noon. The majority of other rose blooms, for exhibition or other purposes, must be sheltered from heavy rains. In cutting show roses, they can hardly be cut too early in the morning, with the dew on their fair petals, and it is necessary to allow for the opening effects on roses of a close journey and a hot exhibition room or tent.

Gas Tar and Curculio.

A correspondent of one of our exchanges gives the following plan for destroying curculio:—

Put the tar into a long-handled fryingpan, heated with coals just so the tar will not blaze, and walk through the plantation. The curculio will immediately fly off beyond the fumes of the burning tar, and will not return so long as any of the fumes remain.

This system of fumigation might be commenced as soon as the fruit is fairly formed, and should be kept up as often and as long as is necessary thro' the season, say twice per week, and directly after a shower of rain.

When there is but a light breeze of wind, by passing along the windward sides of an orchard the entire plantation will be impregnated with the fumes. I have no trouble with curculio in plum orchards thus treated.

Experience in Forestry.

In the current number of the Journal of Forestry, Messrs. Maule, of Bristol, England, relates how a bog in South Wales, which was not only useless but dangerous, was reclaimed by planting it with black Italian poplar. The trees grew so well that at the end of fifteen years, when they were cut down, the produce realized £13 per annum per acre for the whole period of fifteen years, during which the crop had occupied the ground, it luckily happening that the poles were wanted in a

neighboring cooper-works; the strong roots of the trees running through the underlying clay thoroughly drained the bog, letting off the water in such a way that no other process of draining can accomplish. In these days of great demand for packing-cases, the timber of the poplar is very valuable, and the tree has the additional pro-

perty of arriving at a fit state to be cut down in a man's lifetime.

The manure of cows and pigs resists decomposition for a longer time than that of the sheep and horse—both the latter being dryer than the former, and decomposing more readily in the soil.

Six quarts of soot to a hogshead of water makes a serviceable manure for watering forced plants, as well as for most bulbs, flowering plants and shrubs.

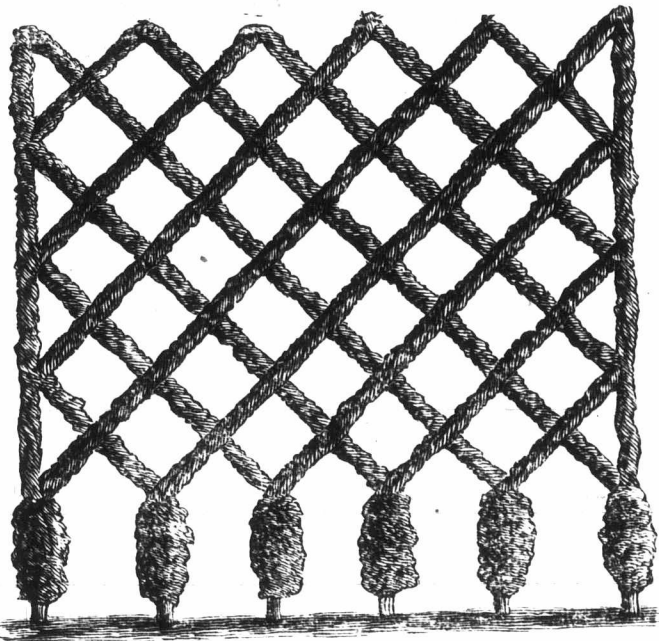


FIGURE 2.

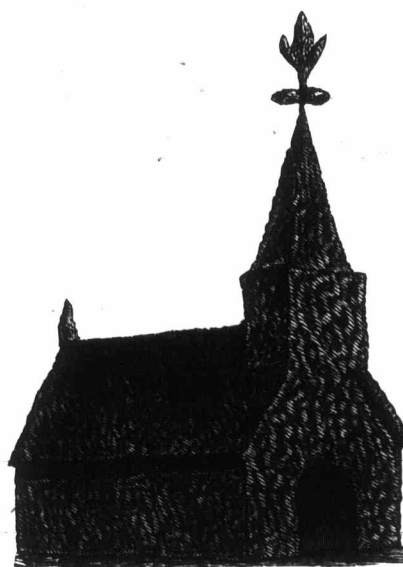


FIGURE 1.

of the survival of the fittest, we presume. There are few aphides on the roses as yet this season. But, because they are so few, they must not by any means be neglected. That would be a sure receipt for allowing the few to become many, to the destruction of the roses. On the contrary, let the few be squeezed between finger and thumb, or brushed off with the aphides brush at once. Also hunt for and destroy caterpillars, green, grey and black. These abound this season, and it needs a quick eye to detect them lurking beneath the canopy of green leaves. A more formidable foe still is red rust or fungus. No specific has yet been found for its destruction. All sorts of nostrums have been tried and failed. Sulphur does not touch it, nor hot lime, nor soot, nor tobacco-water, nor soft soap, nor Gishurst, nor Abyssinian, nor other mixtures. Perhaps the best way of

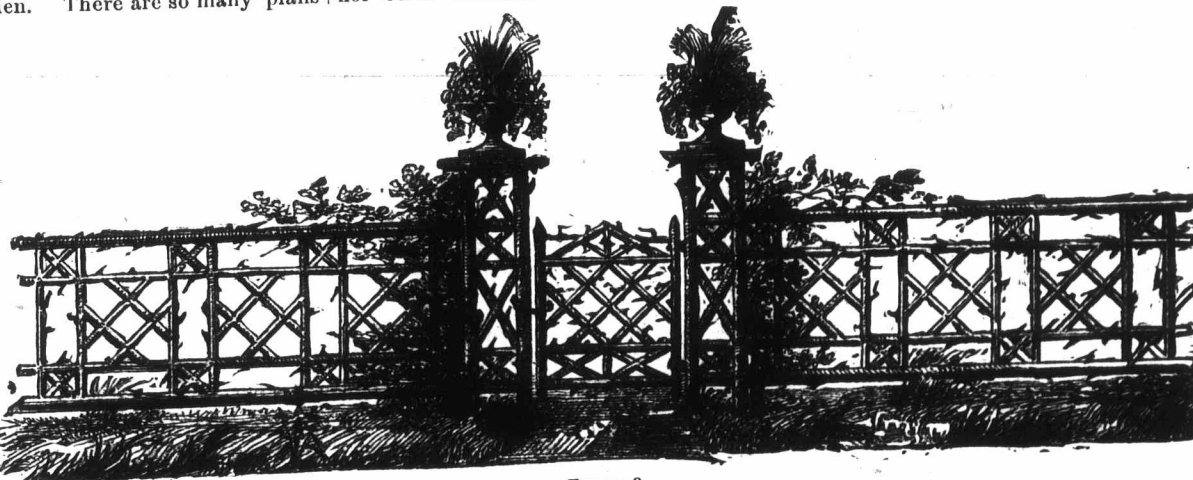


FIGURE 3.

checking the evil is by picking off the red blotches of the fungus, and carefully burning the leaves.

The buds of roses should be thinned when fine flowers are wanted. In thinning, it is well to leave buds of different sizes, to ensure a succession of flowers. Some leave only buds of a size, and the result is a grand rose show for a week or two, to be followed by months of greenness only.

Roses should now be fortified, if at all weak, by weekly delugings of house sewage or guano water. Finally, to have very dark or light roses in the

Seasonable Hints—July.

BY HORTUS.

To have fine fruit, fine trees, fine crops, &c., requires constant care and never ceasing industry. Not that there is very heavy manual labor about the attainment of any of the foregoing objects. No such wearying work as making bricks, or tasks of that kind, but still there is never any time to leave off, and for those who love to tend the orchard and the flower garden, they always have their reward in the shape of some fine fruit for the table, or if flower-lovers, they can inhale the fragrance of some newly opened roses.

In all labor there is reward, and self-gratification, and he that grows a tree from a tiny seed up, grafts or buds it, prunes and attends to it all the time till it puts forth the blossoms, and bears its fruit, enjoys a pleasure that cannot be understood by others till they have gone through the same experience. Such a man is a benefactor to the country, and leaves it all the better for his living in it. What most fruit-growers are apt to forget in regard to their trees, is their tenderness. There is none of them real hardy in the full sense of the word, not even crab apples, and to keep fruit trees of all kinds in good, healthy condition, they should receive good cultivation. The ground of an orchard should be well drained, good, large, sensible drains, not easily choked up by roots or settlings. It should receive every year a liberal dressing of manure and ashes, and if cropped every year, allowance should be made, when manuring, for both crops and trees, giving each their share. The trees should be annually pruned; most care being required when young, to give proper shape to the tree. They may be pruned in March, and again in July. They should be pruned *any time, rather than not at all.*

To get back to where we started about the tenderness of fruit trees. To get them to do well at all, in our severe climate, they must have the whole time the best treatment. There are a great many causes for the deterioration of our orchards. Some seasons are wet, and the soil not having good drainage, and the winter being very severe, the tree gets nearly frozen out of existence. Other seasons the trees bear so much fruit that it weakens them, the whole functions of the tree has been devoted to perfect an enormous crop of fruit which will take it years to recover from the injurious effects. Bad pruning, we think, kills more trees than all other evils combined, and is the most lamentable, from the fact that it might be prevented by a little study and enquiry by the pruner. That would be a rare thing to see, and one, could it be possible to move, so as to show it at our Exhibitions, that would be very instructive to our farmers, and that is an apple tree, say fifteen or twenty years old, with its branches evenly spread out, and the whole head, branches and trunk, in good shape, and healthy condition, not showing a sign of knife or saw, and the branches so disposed as not to require the use of either for some time. This would be well worth seeing, and here again we say that a saw should never be required in pruning—the knife should be brought into use in time that nothing else would be wanted.

Any signs of fireblight in the pear should be removed at once; this is the only way to check this evil, at present known. This remedy applies, likewise, to the black knot in plum. We advise the use of plenty of lime in the soil to counteract the disease.

Attention is directed to the insects—a disgusting and annoying pest is the slug, which infests the pear and cherry; it is easily destroyed by dusting on slacked lime or sand. Hellebore, mixed with water and syringed on, effectually destroys them. The past few Summers the green fly has

been very troublesome. For this we soak tobacco in water, and mix some lime with it, and dip the affected branches in it, or sprinkle it on in the evening; care should be used not to put it on too strong.

To stimulate the growth, and increase the size of grapes, we recommend the application of liquid manure. This used often in moderation, produces astonishing results in the shape of large, well ripened fruit, monster cabbages, and handsome specimens of flowering plants that cannot fail to be prize winners at the Exhibitions.

If you have any apple, pear or plum stocks that were grown from seed, they should be budded now; or, if they have been transplanted the past spring, and are now growing freely, you may wait till the growth shows signs of stopping, which can be easily observed. Pears can be grown with the mountain ash used as a stock, but to make standard trees the buds are put on pear stocks imported from the old country, which are claimed by men of experience to make a better stock than those raised from seed here, suffering less from blight and rust. For dwarfing the pear the quince proves the best stock as yet known, and the pear, particularly some kinds, notably the Duchess d'Angouleme, succeeds better on the quince, making larger and finer fruit in every respect than if grown on its own stock. Some kinds will not succeed at all worked on the quince—for instance, the Flemish Beauty, and also some others. To overcome this difficulty, nurserymen frequently double work them—that is, they first bud some kind (maybe White Dayenne), and when these are one year old work on them the kind wanted.

For dwarfing the apple, the Paradise and Doncain stocks are used; Paradise stock mostly employed. Dwarf apple trees come into bearing right away, and the trees requiring but half the space to grow in that Standards do, they are valuable to parties having limited grounds, or to persons living in towns or villages. The following varieties of apples need never be grown as dwarfs, as they come into bearing sufficiently early themselves without this aid; they are: Red Astracan, Duchess of Oldenburg, Hawthornden, R. I. Greening, and some others.

The art of budding is a very interesting and simple operation, and every person in possession of a garden, or intending to make one, perhaps, in the Prairie Province, should make themselves familiar with it. Provided with a knife, which can be purchased made for the purpose, and strings or matting, with cions of this summer's growth of the kinds wished to propagate, they can make a start by making a T cut on the stock, one horizontal and one perpendicular; raise the bark with the thin end of the knife handle. Select buds that are well developed; those nearest to base of cion are the best. It is advisable to cut the bud thinly, and about an inch and a half long, having the bud in the centre. When cutting off the cions, the leaves should be removed immediately, or else they will soon evaporate what sap is in the cion, and thus render it useless. They should be cut off, not pulled, leaving about half an inch of stalk next to the bud. When the bud is all prepared, slip underneath the bark, seeing that the bud is fairly in the centre, and that the bark of the stock fits evenly on all sides. Wind the string evenly from the bottom, making it very firm and even the whole length of the cut (being careful not to cover the bud), and knot firmly. The buds will have taken sufficiently in three weeks to have the strings removed.

Layers of grapes, flowering shrubs, gooseberries, &c., may be made this month, and if well mulched and occasionally watered they will be found well rooted before fall.

The Orchard in Summer.

Those who have fruit trees and shrubs should attend to them now. The first half of the season is by nature allotted to wood growth, the rest of the season to ripening or hardening this growth, otherwise the frost of our winters would destroy it, or that part which is not matured, which means the tips of the shoots. Thus we see dead points in the spring, usually on young and only vigorous-growing trees; and the length of these dead points is always according to the rapidity and lateness of the growth.

It is an easy matter to force the growth, and rapidly, up to winter or till the frost arrests it. Tender as it is, it then wilts and turns black, as is the case when an untimely frost occurs in summer. It is therefore of importance that the ground is not too rich, which, however, is rarely the case. The most to be dreaded is late enrichment, especially if heavy, for this pushes on the growth, uninterrupted, till arrested by the frost. The true way is to get all the growth possible that can be ripened so as to stand the frost; and this requires some experience, though directions can be given to the uninitiated that will be of use. Our soil, such as we find it, is not generally rich enough for a full and successful growth. It requires manure or cultivation, or both, according to circumstances, and different manures may be used. Cultivation alone has a wonderful effect, especially in a drouth; this repeated during the first half of the season. If the weather is dry I follow the working of the soil with a mulch of cut grass or weeds. This keeps moist for some time. In about two weeks I remove the mulch, stir the ground again and replace the mulch. This whether there has been rain or not, unless quite wet. With the next working of soil I work in the mulch, which is then rotten and puts the soil in fine condition, improving it manually and mechanically, and with material suitable for plant food. If the soil is quite poor, let the mulch be of coarse barn-yard manure. A sprinkling of wood ashes, leached or unleached, is always a benefit for trees and shrubs. The same may be said of bone dust. Either should be worked into the soil a little. If the ground is a stiff clay, coal ashes, applied plentifully and well mixed with the soil, will loosen it and greatly improve it, developing also fertility in its action upon the soil.

There is one thing of importance that is not generally understood: it is the breadth of space to be worked. The roots of trees and shrubs extend a great ways. In an orchard of advanced growth the whole ground is occupied by them, and, therefore, the entire surface needs to be cultivated or enriched. Where the soil is shallow and the trees are rather close, frequent and large quantities of manure are to be used, the absorption by this network of roots being immense. If not given the trees will suffer, show dead limbs, and now and then a dead tree, the fruit small and lacking in flavor.

It is not absolutely necessary that the ground of an orchard be cultivated, as is so strongly recommended. It may be kept in sod, a lawn made of it if desired, clipping the grass frequently with a lawn mower, in which case the growth (the clippings) remains to enrich the soil. But the manure must also be given in proper quantity. Where single trees or shrubs are treated, a wide space is to be cultivated or manured, say six to ten feet, and more in a large tree, as the roots extend much further than is usually supposed. A small space of a few feet in diameter cultivated or manured, as is the too common practice, is of very little benefit to trees. Saw-dust, muck or leaf mold will also do for a mulch, and may be worked in the soil with benefit; but coarse barn-yard manure is the best of all mulchers where the soil needs fertility.

The ground thus being attended to, the next important point is the thinning of the fruit. Few things in fruit culture are of more importance and more neglected. Where there is a heavy set, at least half wants to be removed; better if a third only is left. This greatly improves the fruit in size and quality, the amount being nearly or quite the same as if all had been left to grow, with the advantage in favor of the thinned out trees that it lessens the number of seeds which draw upon the vitality of the tree. The strain, therefore, is less, and the crop improved. It now requires, also, less enrichment. In no case avoid thinning out the fruit. Do not think it may pay with a few trees, but not with a whole orchard. If the treatment of one tree affords profit, that of two will afford a double profit, and so on to the entire number.—[Utica Herald.]

Insects and Orchard Trees.

During fruitful seasons, the orchardist is pretty sure to give particular care to his trees, and from the fact that, in examining the fruit, attention will be especially called to insect depredators.

In seasons when there is no fruit, cultivators are apt to neglect their orchards, at least so far as keeping them free from canker worms, leaf rollers, and such insect pests as are not plainly to be seen, and the work of which is usually noticed in the general bad appearance of the trees. It will be admitted, however, that it is fully as important to keep the trees intact from insects in non-bearing, as in bearing years, since by this division of labor the work is thereby lightened, at least, in full bearing years.

It is absolutely necessary this year that orchardists, and especially farmers who seek to cultivate what fruit they need for family use, and to supply some local demand, pay careful attention to their orchards, for, being a light year for fruit, they need save all they have; and if insects are kept well down this season, there will be less to breed from next year.

The Prairie Farmer has heretofore called attention to the efficacy of whale oil soap for cleaning the bark of trees, and especially for syringing the foliage to destroy the canker worm. It is also fully as useful for leaf rollers and other insects that infest the foliage, and also for bark lice at the time they are hatching and moving forward on the bark, which is usually from the last of May to the middle of June, from Central Indiana and Illinois and corresponding latitudes north, according to the location. South of the latitude of Indianapolis, but little damage is done by this, the oyster shell bark louse.

One of the greatest friends of the farmer, and especially the orchardist, is our common prairie ants which build their mounds wherever chance offers. They are indefatigable hunters of canker worms, and also destroy various other insects that they can manage. They ought to be protected, and even transplanted into the orchard whenever practicable.

In conversation a short time since with Mr. A. R. Whitney, of Franklin Grove, Ill., one of the most extensive and best known of Illinois orchardists, he gave us his formula for preparing whale oil soap for syringing trees and plants. It is as follows:—For 40 gallons of rainwater use 4 or 5 pounds of soap, or enough to make a strong suds. The cost of soap is from 8 to 10 cents per pound. The soap should be first broken and stirred in just enough water to thoroughly soften and mix with it, and then add to the rest of the water. Then add to each 40 gallons of water a quart of kerosene. The kerosene forms a kind of varnish which causes the whole to adhere, and prevents its washing off easily. To this the Prairie Farmer would suggest the addition of a quart of impure carbolic acid, such as is obtained at gas works; and, for washing the trunks and limbs of trees a gallon or more of the acid to 40 gallons of the suds. If the impure acid cannot be easily obtained, half an ounce of crude carbolic acid may be had of the druggist, to be used to the 40 gallons of suds; and for the trunks, three or four times this amount. It will be found a good investment either for the nurseryman, orchardist, or farmer, since the preparation will be found beneficial to the trunks and branches, cleansing them from moss and insect larva, and inimical to leaf-eating insects generally.

VICK says that in the majority of our orchards nearly half of the fruit is not marketable, and this is the legitimate result of ignorance and carelessness. Trees are allowed to grow as they please, producing, in many cases, such dense heads as to prevent proper maturity of fruit; they are allowed to over-bear, producing a few good specimens and a great many poor ones. We must learn to give our trees judicious pruning, remove all surplus fruit as soon as set, leaving on only those the tree can mature; give good culture, top dressing with proper food—and then we will not spoil three barrels by selecting one fit to send to market. When Americans learn how to grow and pick and pack apples properly, we shall have an almost unlimited and exceedingly profitable market in Europe.

Copperas water—a solution of sulphate of iron—5 pounds to 40 gallons of water, is recommended as valuable for tomato plants at three applications during the season of growth. It is reported as increasing fruitfulness and earliness, and prolonging the season. It is also said to be beneficial to roses and other flowering plants.

Effect of Climate on Plants.

Observations made during the Arctic Expedition have brought to light one or two curious facts in connection with the powers of growth possessed by different plants under varying conditions of climate. American research has proved that the seeds of certain plants, if gathered in one climate and sown in another, will germinate earlier or later, and with more or less vigor, according as the new climate is warmer or colder than the old. And even a perceptible change of climate is not required to show these results; a difference of a few degrees only in latitude is sufficient to do so. For example, wheat from Scotland, sown in the south of England, will germinate and ripen much more quickly than wheat of exactly similar quality gathered in the South and planted in the same latitude in which it was grown.

This fact is of the utmost importance to agriculturists. To secure early-growing wheat, it is only necessary to take care that the seed is gathered in a colder climate than that in which it was sown. The process is perfectly practicable, as it might be so arranged that the wheat sown in the North should not be consumed, but preserved for seed for the next season in the South. The same thing is noticeable among other plants, and florists and horticulturists might take advantage of this circumstance to produce both earlier and stronger plants than they do now, without the appliances for forcing.

Another curious fact is that seeds—especially wheat—will stand an immense amount of cold without injury. Some wheat left in the Polar regions by Captain Hall, of the *Polaris*, in 1871, and found by Captain Nares in 1876, germinated and produced healthy plants when sown under glass on board ship.

Captain Allen Young, of the *Pandora*, has on board his yacht a curiosity in the shape of a rose tree, grown in England, which has been on board ever since he left England for the Arctic regions. When in the Polar cold the tree drooped, and to all appearances died; but as soon as the vessel reached a warmer climate the rose tree revived, and is now in full bloom and in a perfectly healthy condition. The functions of life had been suspended while the tree remained in the cold latitudes, but they were not destroyed. This fact is curious, as tending to prove that a tree which will stand frost at all will bear almost any amount of cold; and also that, if its natural growth and development are retarded at the proper season, the plant cannot defer the revival of its development till the next normal period, but will continue its development at the first opportunity, which, in this case, after the intense cold of the Arctic regions, occurred in the more moderate cold—the comparative warmth—of an English November. It will be interesting to see if this plant blooms naturally at the proper season next year.—*London Country.*

More of Borers.

The Round-headed Apple-tree Borer (*Saperda bivittata* of Say) deposits its eggs in May and June. It is essential to keep the base of the tree free from weeds and trash in May, after which the lower portion of the trunk should be freely soaped, and Riley suggests placing a piece of bar soap in the crotch of the tree to be washed down by the rains. Soft soap in the same situation was recommended by early writers, but the bar-soap is doubtless better. The trees should be examined in the Fall, and any worms which may have hatched in the Summer found and destroyed, as they are more easily detected in their young stages than after they have gone deeper into the trunk; besides they can be dislodged with less injury to the tree.

Where the Flat-headed Borer, which works in the branches and limbs, is at all troublesome, the soaping should extend to this portion of the tree to prevent egg-laying by the female. These remarks cannot be made to apply to the borer of the peach tree (*Egeria exetiosa*), as it is a very different insect (in the perfect state a kind of moth, and not a beetle), the eggs of which are deposited fully two months later; besides the application of soap does not deter the female from depositing her eggs upon peach trees. As a preventative to the attacks of this insect, removing the grubs with a sharp knife, Spring and Fall, or raising mounds of earth or ashes around the base of the trees in the Spring, has been recommended since the first writings of Fitch. For trees badly affected, removing the earth and pouring in hot water has been found efficacious.—[Charles R. Dodge.]

How to Preserve and Restore Flowers.

Flowers may be preserved in a fresh state for a considerable time by keeping them in a moist atmosphere. Those who love to see plenty of fresh flowers in their parlors or sitting-rooms will be gratified by adopting the following plan:—Pour water into a flat porcelain or glass dash. Set a vase of flowers in the dish, and over it place a bell glass, with its rim in the water. The air which surrounds the flowers, being confined beneath the bell glass, is kept continually moist with the water which rises with it in the form of vapor. As fast as the water is condensed it runs down the sides of the bell glass back into the dish; and if means were taken to inclose the water in the outside of the bell glass, so as to prevent its evaporating into the air of the sitting-room, the atmosphere around the flowers would remain continually damp. Those who wish to "linger on the beauty" of a rare flower or a bouquet will be repaid by this experiment. It can be tried on a small scale by inverting a tumbler over a rose-bud in a saucer of water.

Another method, by which some flowers may be preserved for many months, is to carefully dip them, as soon as gathered, in perfectly limpid gum water, and after allowing them to drain two or three minutes, to set them upright, or arrange them in the usual manner in an empty vase. The gum gradually forms a transparent coating on the surface of the petals and stems, and preserves their figure and color long after they become dry and crisp.

Faded flowers may be generally more or less restored by immersing their stems in very hot water, and allowing them to remain in it until it cools, or they have recovered. The cooled portions of the stems must then be cut off, and the flowers placed in clear, cold water. In this way a great number of faded flowers may be restored, but there are some of the more fugacious kinds on which it proves useless; but flowers may also be preserved, and their tints deepened, by adding to the water a little of the solution of carbonate of ammonia and a few drops of the phosphate of soda. The effect of this, in giving the flower a deeper color and a stronger appearance, is quite wonderful; and by cutting off every other day about one-half inch of the stems of the flowers with a sharp knife, they may be kept as long as their natural life would last.

Transplanting.

So far as transplanting is concerned, all that is necessary for success with any plant that will bear transplanting at all is to press the earth pretty firmly about the roots, leaving a little depression thereabout; give sufficient water to reach the lower roots, and when the water has entirely sunk in the earth, draw the dry soil over all. As to how well or how ill the planting may be done, or whether the work be done fast or slow, this can only be learned by practice. A man or boy who can learn to be a really good plowman, should have no difficulty in becoming both speedy and accurate in transplanting.

This, however, is not all. He must know something of the nature of the plants he cultivates. The tomato is strictly a tropical plant. It is also essentially a dry weather plant. Do not, therefore, transplant, north of latitude 43, before June, and let the space where they are to be set be drawn up into pretty high and broad hills. Have the roots at the proper depth, and if the plant is pretty long, and perhaps spindling, lay it along the ground, covering with about two inches of earth, leaving but little more than the head or crown of leaves to the air. Thus you will have what will eventually make a good plant. If you endeavor to make it stand straight you will fail, unless the plants have been well hardened in the beds, and are both short and stocky. Then, if you give water as before directed, you are certain of success. The same rule will apply to all plants having straight shoots, as cabbage, sweet potatoes, egg-plant, pepper, etc. In planting, set them deeper than they stood in the seed bed, or well up to the first leaves. Plants with spreading leaves, like lettuce, cannot, of course, be planted much, if any, deeper than they usually grew.

Do not be afraid to transplant now. There is yet plenty of time to get tomatoes fit for use and for canning before frost comes; so with pepper, egg-plants and sweet potatoes. July 1 to July 20 is early enough for late cabbage, and the middle of July will do nicely for celery.

Work that Must be Done.

JULY.—VEGETABLE GARDEN.

Hoe the advancing crops, to kill the weeds and stir the soil; watch weeds narrowly, for they are rampant.

Plant a new crop of celery in rows, three feet apart, and six inches apart in the row.

Transplanting is best done in cloudy weather. Keep the plants wet. Puddle the roots. Much depends upon pressing the soil firmly against the roots.

Plant pickle crops early this month, as, also salads of all kinds, and radishes.

Plant beets and carrots for young roots, and sweet corn to supply the table late in the Fall.

FRUIT GARDEN.

When strawberries are entirely gone, weed the bed thoroughly. If new plants are wanted, enrich the soil between the rows and let the old ones run.

When raspberries cease bearing cut out the wood which bore the fruit, and train the new growing canes. They will bear fruit next season.

Raspberries may be stopped in their upward growth, by pinching, when at three or four feet, and blackberries at five or six feet. This pinching the tops will cause sidebranches to grow, and these are to be kept in control by pinching when they have grown as long as desirable. If well pinched this season the fruit will be more than double next year.

Thin out gooseberries the first of the month. Use the berries for cooking. Those left will grow the better.

FLOWER GARDEN.

The lawn must receive special attention. Mow when needed, and no oftener, and it is not generally likely to need it during a long continued drouth. Root out all coarse weeds.

Verbenas will have begun to run, and should be pegged down. Old hair-pins are good for this purpose.

Carnations should now be increased by layering. Ornamental shrubs may be easily propagated from the cuttings of this season's growth, set in sand soil under a well shaded sash.

Roses will need attention. Cut back the Spring bloomers. Shake off rose-bugs and use whale-oil soap for slugs. Do not be afraid to pluck the first flowers that bloom. The plants will, later in the season, be the better for so doing.

Hedging.

An Iowa farmer writes out his way of hedging with the honey locust, as follows, in the Western Farm Journal:—I have just been engaged in driving down a few stakes in the line of a young hedge, and drawing through the tops of the hedge plants a single wire, fastening it to the stake in the usual way. This young hedge was slashed by nicking near the ground and laying over at an angle of about forty-five degrees last spring. The object in putting the wire through it at this time, is to make it an effective fence, to enable me to turn cattle, sheep, &c., into the part of the corn fields already husked. Now for the exhibit of economy. One hundred rods of such fence as would answer the purpose of restraining my stock as well, would cost \$125 in cash. I find by careful estimates the cost of plants, of setting, of culture, of plashing, and of the one wire, and work to place it, is less than \$25, and the only cash expense of this is the one wire, and this was drawn out of a hedge row where it was no longer needed.

Mr. Chas. Trubner thinks it probable that not more than 10 per cent. of the fruit trees annually planted in the Western States live to bear a full crop. He tells Colman's Rural that one reason for this discouraging mortality is found in neglect of the simple precaution to wet the roots before setting, which causes the soil to adhere closely, so that they can begin feeding at once. He put out an orchard of 200 trees a month ago, using only a single bucket of water for all; still they are doing well, and he don't expect to lose one. He considers that subsequent irrigation is entirely unnecessary.

One-fourth each of sand, leaf mold, chip dirt and well-decomposed manure makes an excellent composition for putting your house plants in for winter.

Poultry.**Profit and Loss in Poultry.**

Poultry is a source of profit or loss, just as it is well or ill cared for. In this respect the business of poultry raising does not differ from other kinds of business. More depends upon the manager than on the breeds of fowls selected. There is difference in breeds, some being more profitable than others for eggs and market purposes; but all breeds have their good and bad qualities, and all are susceptible of profitable management. No breed, however, need be expected to yield profit or satisfaction if not properly cared for.

There are two great mistakes made by amateur poultry raisers, and by some professionals. Now and then one may be guilty of both mistakes, but the great majority, whether they have many or few fowls, are guilty of one or the other. Poultry, especially hens, are either too closely confined to be healthy and prolific, or are given a too free range, expending their energies in rambling and making nuisances of themselves. In the latter case they may be healthy, but will not do as well as if kept within reasonable bounds and made to acquire more domestic habits. The more they ramble the wilder they get, and begin to more and more approximate wild fowls.

Most farmers give too free a range to their poultry, especially in the summer. They may have a miserable place to roost in, summer and winter, and from this fact suffer during the night time unless they get disgusted and show better sense than their owners by taking to the apple trees or other outside places. But in the daytime they roam fancy free, often making serious depredations in the garden, hiding their nests under the fences and bushes, and generally making themselves as happy, mischievous, and unprofitable as possible. Smothered or frozen in winter, they consume all their vital energies in sustaining life; and roaming, scratching and foraging at large in summer, they have but a small amount of surplus vitality to expend in eggs. So poultry kept in this way is not only unprofitable, but too often becomes a nuisance at home, and a pest to the neighbors. We often hear of the unprofitableness of barnyard fowls. Give the best breeds such treatment as this for a few years and they will become common barnyard fowls. This is the way to make them. But give them generous food the year round, warm and airy quarters, plenty of sunlight and ample grounds of their own to roam in, and they will improve rather than degenerate, and be a source of pleasure and profit instead of loss.

It is an almost fatal mistake to keep fowls in too confined quarters. They must have ample and airy, clean and sweet quarters to stay in over night and shelter them from storm. These conditions are demanded by all kinds of higher animal life. The fact that human beings are crowded together in close, unventilated rooms, affords no valid reason why animals or fowls should be uncomfortably crowded. In the case of the human bipeds, no one may be interested in the profit to be derived from them, but in the case of the feathered bipeds the owner is directly interested. It is for the benefit of his pocket to keep them as healthy and thriving as possible, that he may get the largest profit out of them. He must give them plenty of breathing room, for nothing is of more importance than air, and keep them every way comfortable and satisfied.

All fowls need space to roam and forage in during the day, in summer time. Fifty hens ought to have an acre devoted to their use—certainly not less than half an acre. And this space should be adapted to their wants and peculiarities; have open, sunny and sheltered places, cozy and shady nooks, and if it can be stocked with grasshoppers and other insects, so much the better. If these are not present, animal food must be supplied, as well as grain. There should be grass, and other green food may be cultivated for their stuff in their grounds, but they allowed to help themselves. Thus kept and cared for as they should be, they will not only yield the most profit, but the most palatable and nourishing eggs and flesh.

For a feed for young chicks I give hard boiled eggs for the first few days; after that I take raw eggs and mix with meal and bran to a stiff dough, adding a little water so it will not be so sticky. They are very fond of this and grow nicely.—H. K. in Poultry Nation.

GLEANINGS.

From her 35,000,000 acres England realizes an annual product of the value of \$150,000,000.

The cost of commission, handling and ocean freight on dressed beef sent to English markets is 2½ cents per pound.

My past year's experience just confirms what I have always thought: that if you do not kill weeds at the right time—that is, when young—you will have to spend a great deal more time and money than you ought even for experiments.

In Pennsylvania the owner of property on which trees are planted along the highways has his road tax reduced at the rate of \$1 for each four trees planted. The trees must be living one year after planting, and be well protected from animals. Injury to such trees is punishable by fine.

S., writing from Syracuse, N.Y., says: This section can scarcely calculate upon ordinary hay crops of grain and grass. Nothing so bad has ever been experienced in this county. I venture to predict that hay will sell for \$20 per ton in our market next winter.

An Illinois farmer writes: Early sown wheat is fine, but as late sown wheat got above ground the locusts appeared, and are still eating it. I think they have destroyed one-fourth of the wheat on last year's breaking, or about twenty per cent. of the wheat generally.

That the quality of hay is very materially dependent on the time of cutting is well known to experienced farmers. The longer grass is left standing after it has blossomed the greater is the increase of indigestible woody fibre, and the greater the diminution of soluble nutritive constituents in the hay which it yields, and precisely the same remarks apply to the clover crop.

It has been found in England, from repeated trials, that it takes 100 lbs. of turnips to make one pound of mutton, when the turnips are fed in sheds under favorable conditions; but fed in the open air it will take 150 lbs. to produce the same quantity. Here is another argument in favor of shelter for domestic animals.—[American Cultivator.

A writer in the Country Gentleman remarks that in his experience, whatever mode is adopted for destroying the potato beetle, keeping the weeds down is one of the essential elements of success. He found some eggs fastened on the under side of a pigweed, also on blades of grass. In destroying the weeds, therefore, we are preventing a large increase of slugs.

About 500,000 tons of manufactured manures, containing a soluble calcic phosphate, are annually sold in Great Britain. The manure termed "superphosphate of lime" was at first made by acting upon bones by oil of vitriol; but it is now almost altogether prepared by mixing sulphuric with bone-ash, bone-black and various mineral phosphates.

The mania for nitrate of soda will cause ultimate loss to many a farmer who is not aware that he should concurrently apply in the subsoil plenty of phosphates. Its tendency to make crops look green and promising deludes many a farmer, who thus gets color and often mildew, instead of healthy increase. Its price will come down as rapidly as it has risen.

The period at which clover is cut for hay materially influences its quality. Thus, according to Wolff, the amount of nutritive substances in red clover at beginning of flower is 11.26 per cent.; red clover in full flower, 13.04 per cent. Red clover hay, cut at beginning of flower, contained 55.43 per cent. of nutritive matter, while the same cut in full flower contained 46.07 per cent.

CLOVER.—The writer of Wanshaken Farm Notes says: Whenever we seed down we shall use twelve pounds of clover seed to the acre, along with the grass seed, with the expectation of reward—not only in the cut grass, but in the conserving influence of the clover roots, their physical action, and other beneficial effects on succeeding crops.

DANGER OF EATING CUCUMBERS.—Dr. Leidy, of Philadelphia, has discovered that cucumbers are liable to be infested with tape-worm. At a meeting of the Academy of Science he exhibited a specimen of tape-worm taken from the inside of a large cucumber.

Agriculture.

Failure in the Growth of Seeds.

The Royal Agricultural Society of England have received from the Consulting Botanist the following report:—

A large number of samples of seeds have been examined by me during the past few months.

My attention has been specially called to the seeds for permanent pasture. The result of careful experiments with numerous samples, and the dissection of a large series of seeds, have shown that great disregard is paid, at the time of collecting, as to whether the seeds are ripe. In all the cases in which the seeds attain a considerable size—as in the rye grasses, or even in Timothy grass—the merchant, as well as the ultimate buyer, can easily detect the presence of any considerable quantity of imperfect or undeveloped seeds. But in the grasses with small seeds, or with seeds that are small relatively to the glumes or chaff which surround them, it is more difficult to determine whether samples are fully ripe. The foreign grower—for our grass seeds are, with few exceptions, imported—perhaps unwittingly, collects them while they are still unripe. The result is, that a large percentage never germinate of such grasses as meadow foxtail, the meadow grasses, sweet vernal grass, &c. In some mixtures of permanent grasses I have found that not a single seed of *Poa trivialis* and *Alopecurus pratensis* has germinated, and on examination I have found that this was mainly due to their being gathered before they were ripe. In many cases they had been gathered before the flower had appeared, and the unexpanded stamens were still inclosed in the blossom; in others the seed had just begun to form.

It is difficult to suggest an efficient remedy for this serious evil. The persistent refusal of seeds which are found to be almost worthless from too early harvesting would no doubt in time tell upon the grower through the merchant and importers, though this is necessarily a somewhat roundabout way to reach the source of the evil.

But failure in growth is not always due to un-ripened seed. I have recently examined a sample of black oats, of which a member had sown four bushels to the acre, and expected a thick crop. The sample consisted of large and fully ripened grains, but only 32 per cent. germinated. In the remainder the embryo was dead, most probably because the seed was old, though careless harvesting of the best crops may speedily destroy the life of the seed.

Several cases of injury to cattle through the presence of noxious substances in their food, such as ergot, poisonous weeds and yew twigs, have received my attention.

The Hop Prospect.

The *Utica Herald*, in speaking of the much-talked-of decrease in the hop crop for 1879, says:

In making the following estimate, we have been guided partly by what we have seen for ourselves, and partly by what we hear from persons residing in different parts of the country. We believe, taking all things into consideration, the decrease of acreage, the poor growth of the vine, and the very general slackness in cultivation, that 20 per cent. is a moderate estimate of the amount by which the hop crop of 1879 will fall below that of 1878. The damage is already done, and no amount of care will develop a crop in those yards which have already been so shamefully neglected. But it will be worth the while for those who have yards that are in fair condition to watch them closely, and give them the best of care. Even then it would be foolish to look for high prices, but it seems quite possible that good hops may bring a living profit to the grower next fall, and business principles would dictate that those who have fairly good yards should cultivate them well.

DEEP PLOWING.—Those who have plowed their grounds deeply this spring may have a fair yield of corn, notwithstanding the severe drouth, if they keep the plows and cultivators running as constantly as they ought to till the corn is laid by. But those who have plowed shallow cannot hope for half a crop, unless we have frequent and copious showers within a short time. Every farmer ought to plow an inch or two deeper every year. The deeper the soil, the better able it is to resist drouth.

Do Not Mow too Close.

There was true economy in the advice of the farmer who recommended that the lower joint of grass be left in the field for the old brindle cow, rather than be cut and cured for her. He was one of the numerous army of mowers who had learned there is nothing gained by cutting too close.

The testimony with respect to the height from the ground at which it is best to cut grass is conflicting, and tends to confuse and oftentimes mislead a novice in the hay-field. Cultivators vary in practice from one-half inch, or as close as possible, to four inches. The general tendency is, however, to cut close, and many fine meadows have been seriously injured therefrom.

Close observation has taught that timothy cannot be cut low, in dry weather especially, without inflicting injury. All attempts at close shaving the sward should be avoided. Many of our most successful farmers cut timothy nearly or quite four inches from the ground. Others, in gauging mowing machines for this grass, take care to run them so high that it will not be cut below the second joint above the tuber.

Close mowing of upland meadows ought also to be avoided, as the action of the hot sun and dry weather following the harvest affects the roots of the grass unfavorably when left without some protection. On the other hand, low, wet mowing grounds will bear cutting as close as possible; these are benefited by the influences which would dry and burn up an upland meadow. Again, where the practice is followed of top-dressing the meadow immediately after taking off the grass, the mowing may be done low, and a smooth surface left to cut over the next time.

Generally speaking, grasses cut two inches high will start much quicker and thrive better than when shaved close to the ground; the finer grasses, as a rule, when the season is not a very dry one, can be cut lower with safety than coarser sorts.—[*N. Y. World*.

A Promising Crop Prospect.

The past four years have been remarkable, not only for comparatively large yields of nearly all crops, but for a noteworthy increase of the area of land in cultivation. So far as can be judged by the extent of seeding, germination and early growth of the present season, another fruitful year is to be added to the series. There has been a slight increase of breadth of wheat, the surface devoted to corn west of the Mississippi has been greatly enlarged, and a majority of the Cotton States have added to their acres of the world's great textile. There are symptoms of an agricultural revival in the East, and even the staple bread-crops are demanding more attention. There appears to be no material extension of crop areas in the Middle States, but a tendency to greater thoroughness in culture. The much-talked-of diversion from cotton to grain and grasses in the South is exceedingly slow of accomplishment; while the acreage of corn and wheat increases, that of cotton advances at a pace only a trifle slower. Everybody wants everybody else to "diversify." Even in the wheat-growing belt of Texas the outcome of the past year has not encouraged further rapid extension. In Nebraska and Dakota the enlargement of grain fields is most noticeable this year, and next in Minnesota and Iowa. Kansas has a million and three-quarters acres in wheat, which is little more than the last season.

The starting of winter grain was slow. Well covered by snow in the Northern belt, there was little injury by freezing, an exemption not so fully shared in Maryland, Virginia and California. A dry fall in the Middle States was unfavorable for adequate root growth, rendering the early spring prospect still more unpropitious, but improvement since has been generally satisfactory. In Texas the spring was early but dry, and the drouth in April became very general and serious, and continued till about the 22nd, when drenching rains put an end to suspense, assuring vigorous growth of grass and corn and cotton, while grain crops were too far advanced for more than partial recuperation. There was also an injurious drouth in the Ohio Valley, and lack of April rains throughout the West. The seasonable rains of the last few weeks have dissipated the incipient gloom and inspired strong expectation of a rich harvest of all kinds of grain.—[*N. Y. Tribune*.

Celery for Nervousness.

A writer familiar with the virtues of celery as a nerve tonic says: "I have known many men and women, who, for various causes, had become so much affected by nervousness that when they stretched out their hands they shook like aspen leaves on a windy day, and by a moderate daily use of the blanched footstalks of celery as a salad they became as strong and steady in limbs as other people. I have known others so nervous that the least annoyance put them in a state of agitation, and they were in constant perplexity and fear, who were also effectually cured by a moderate daily use of blanched celery as a salad at a meal time. I have known others to be cured of the palpitation of the heart. Everybody engaged in labour weakening to the nerves should use celery in the season and onions in its stead when not in season." An extract of celery makes a nourishing drink, and is excellent for people who have lost nerve strength by over indulgence in alcoholic liquor. Celery is also excellent for canary birds; they are little animals, with very delicate nerves, easily frightened, and therefore they need such a remedy very much, and the relish with which they take it is a proof that their instinct guides them to eat what is good for them.

Pruning in Due Season.

What is the season for pruning, is a disputed question. A writer in the *New York World* reasons on the subject as follows:—

"When pruning is delayed until the season's growth is nearly completed, as in July and August, the removal of a considerable portion of the leaves after the resources of the tree have been largely exhausted by the season's growth destroys the balance existing between the roots and branches, and the result is that the growth is checked and the vitality of the tree reduced. On the contrary, cutting a tree back or pruning it between the time growth ceases in the fall and the time it starts in the spring tends to increase the vigor of the tree, for the reason that there is a constant deposit of plant food made in the different parts of the tree during the cessation of growth. The sap is seldom entirely inactive during this season. If, therefore, the tree is deprived of a part of its branches at this time the same amount of matter that would have been distributed among the many branches is deposited in these that are left. The consequence is the buds push with great vigor and in many cases buds push out and produce water sprouts. Therefore pruning during the fall, winter or early spring increases the vigor and enlarges the production of wood in the tree, while pruning in late summer has the opposite effect of checking growth and producing fruitfulness. In most cases of pruning, however, neither of these ends is sought; the object is to remove surplus branches without either diminishing or increasing the vigor of the tree, therefore the wisdom of choosing between these extremes; a good time being, I think, about May or early June."

While ten men watch for chances, one may make chances; while ten men wait for something to turn up, one succeeds, and is called a man of luck, the favorite of fortune. There is no luck like pluck, and fortune most favors those who are indifferent to fortune.

Forty head of cattle at Shelburne Falls, Mass., are reported as having given signs of pleuro-pneumonia. Dr. Cressy was sent to examine them. Last week we stated that a car load of Short-horn bulls passed through Chicago, from Shelburne, Mass., en route for Montana. We have heretofore advised Western men to have nothing to do with Eastern stock unless after sufficient isolation they were found healthy. If Montana breeders should happen to have imported pleuro-pneumonia with their bulls, they will pay dearly for their improved stock.—[*Prairie Farmer*.

Tobacco speedily exhausts the soil in which it grows, as may be judged from the large amount of ash which it contains. Every ton of perfectly dry leaves carries off from the soil from four to five hundredweight of mineral matter—that is, as much as is contained in fourteen tons of the grain of wheat.

Buckwheat—Its Varieties and Culture

Of all grains grown on the farm, doubtless buckwheat is one of the most profitable, since the labour employed in growing and harvesting a crop is one-half that bestowed in the growing of oats, wheat, etc. In some sections of the country, particularly in Ohio, Pennsylvania, and some of the New England States, this is an important product, for the reason that it flourishes comparatively well on poor soils, and is usually a sure crop to plant. Its uses are various, and the demand always good. Its use as one of our principal bread-stuffs is well known, and "hot griddles" are a necessary appendage to every good breakfast, particularly during the winter and spring months. When mixed with other grains, especially corn and oats, it makes a most excellent kind of provender, and is greatly relished by swine; and for winter feeding is excellent, as it is of a heating nature, and for this reason should only be fed in moderate quantities. For poultry it is one of the best grains we have, and is only surpassed for egg production by refuse wheat. Buckwheat requires a light, warm soil, mellow and not over fertile, and, like beans, when planted on rich soil, the straw is more abundant than the grain, and therefore too rich soil is not favorable for a large yield.

Properly speaking, there are only two sorts, the black or brown, and the silver hull. The first variety is mostly planted, and is excellent for all the purposes for which the grain is used. The latter sort is claimed by some to be much superior to the former, while others who have tested it pronounce it inferior. The silver hull ripens a few days earlier and continues longer in bloom, while it is claimed by some growers that the yield per acre is nearly double under the same conditions. The grain is of a fine light gray color, varying slightly in shade, and the corners are much less prominent than in the ordinary variety, while the husk is a trifle thinner. "The flour is whiter, more like wheat, and is quite as nutritious" as the black variety. As a honey plant it is quite valuable, but gives a dark shade to the comb and is heavy bodied, but the flavor is ordinarily good, though not equal to that made from white clover. The seed should be sown from the first to the fifth of July, at the rate of from three pecks to a bushel to the acre, and should be harrowed and bushed in. It is a rapid growing grain, and matures in September, and should be cut before the grain is too ripe, to avoid shelling. Cut when the dew is off; and after the straw is dry rake into little bundles and stand on end, giving the top a little twist, so that the straw will hang together and not fall over.

The yield on good soil is from fifteen to twenty-five bushels to the acre, the former figures giving about the average yield. The straw heretofore has been considered worthless save for bedding; but a late experiment made in steaming and adding a little meal has resulted in proving conclusively that when fed in small quantities it can be utilized as a very good mash for stock. There is doubtless very little nutriment in the straw, but when sprinkled with meal it becomes valuable and palatable. It is said to be of a loosening nature, hence it may be fed with decided advantage during the winter. A variety of food for stock especially valuable, and by occasionally feeding the straw in connection with hay and oat-straw, will no doubt result in decided good to farm stock. Almost every farmer has some piece of ground adapted to this grain, and, while not rich enough for corn and other grains, will produce a good crop of this sort of wheat. On new land the crop is most abundant, while the grain is plump and large. We can confidently recommend the growing of buckwheat to all who do not ordinarily grow this important product. It will help to eke out the other sorts grown, and the result in feeding will be satisfactory. — [Scientific Farmer.]

Level or Hill Culture for Corn.

The arguments for and against level culture for corn have little certain foundation except as a matter of expediency. As a general rule, the process of hilling corn covers the weeds and at the same time renders necessary a quite thorough culture. To grow corn on the flat system requires an effort to refrain from hilling. We ourselves, as a matter of practice, hill. Were it not for weeds, we would prefer a level field of pulverized soil to a ridged field with a soil only pulverized on the hills. Pulverized soil acts as an efficient mulch, and conserves water during a drought. In our own practice we throw the dirt against the plants in order to cover weeds, and thus to a certain extent hill; but we as well pulverize the interspaces.

The Hay Crop.

The cutting and saving of hay in June is more general than it was in former years. In this, as in other branches of agriculture, there is a decided improvement. In former years it was rare to see any meadows mowed before July, but now many have their hay saved by the 29th of June. Some, however, is to be mown in this month, especially old meadows, and to these the following item on haymaking, from the Live Stock Journal, cannot be amiss. English farmers, as a general rule, commence cutting their grass early in June, and generally finish about the middle of July; and the English hay is decidedly the best, owing to its being earlier and greener, and to the greater pains taken to save it properly:—

Considerable discussion has been had in regard to the time of cutting grass, and, while no specific rule can be given to apply to all cases, there has been established a principle that should govern. So long as the grasses are growing and new nutriment is daily added, the mower should be kept from the field; but there comes a time when a rapid change in fibre takes place. The whole force of the plant is directed to the maturing of the seed; the concentrated elements are turned in that direction, and in the same proportion, woody fibre is increased in the stalk. It is just at this point that the grass should be cut; a few days often make great changes; if cut too early the imperfect juices are liable to sour; if too late there is too much fibre. Some advise to cut in the stiff dough of the seed, when the process of curing will substantially mature it. Cut in the morning, or so late in the evening that curing is not advanced. Then avoid baking in the sun. It should be exposed to the sun as it falls from the mower, till about half cured; the process should then be perfected in the windrow. In very dry weather raking can commence frequently in three hours after mowing; the hay will mature while handling. We cannot condemn too severely the system followed by many farmers of cutting large amount of grass at once, merely to expedite work, and leaving it exposed to sun and dew for several days. It is not worth more than one-half well managed hay. In case there is much clover in the hay, it is doubtless better to add some salt.

IMPLEMENTS.

The mower and the horse rake have become indispensable to hay-making, and doubtless the hay-loader and horse-fork will soon be regarded in the same light. We have the best authority for stating that the hay-loader and horse-fork will enable two men to stack or put in the mow from four to six times the hay they could handle with the common fork in the same time.

The Swedish Turnip.

The earth should be well removed from the roots, otherwise the plant is apt to throw out too many lateral roots, which detract from the value of the bulb. The horse-hoe should be freely used between the ridges both before and after the plants are singled. The best horse-hoe is a small grubber having five chisel-pointed tines; the depth to which the soil is stirred gradually increases from 4 to 12 inches or more, and is frequently repeated even during the driest weather. The constant and deep stirring increases the absorptive and retentive power of the soil, and when efficiently conducted is the best known means of preventing mildew in the swede crop. This system of deep stirring between the rows is more difficult to carry out when the crop is grown on the flat. The root crop is of vast importance to the stock farmer; quantity and quality are both essential conditions. The great aim of the practical man should be to grow a heavy weight per acre of roots of high nutritive value rather than strive to grow individual specimens of gigantic size; medium-sized roots are usually of the greatest specific gravity. Although we have grown 32 ton of swedes per acre on ridges 27 inches wide and the plants set out 14 inches in the rows, as a rule we have grown the heaviest weights per acre and the best quality of roots at 18 to 20 inches between the rows and nine inches from plant to plant. These are the more common distances where drilled on the flat; the great disadvantage of this method is that the narrow space between the rows prevents the practice of grubbing or deep stirring from being so successfully carried out. A common error, and one which entails great loss, is that of allowing the roots to remain unharvested after they have become ripe.

Miscellaneous.**A Novel System of Brick Burning.**

BRICKS MADE IN TWENTY-FOUR HOURS, AND BURNED FOR SIX CTS. PER THOUSAND.

Quite a startling novelty in brick burning is reported from England and is said to be in successful operation. The kiln, in its construction, resembles a single tunnel, about 108 feet long, 8 feet wide, and 11 feet high to the crown of the arch. The bricks from the machines are carried on a belt to a strong iron wagon with a clay top, standing close to the machine, and when 50,000 have been set in position, it is taken to the inlet end of the kiln, which contains nine wagons, and as the load of green bricks is admitted at the inlet end, one is passed out at the other end ready for the purchaser. The fires operate from four small furnaces in each side of the kiln in the centre of the length, while those from the centre to the outlet end are cooling, and those from the centre to the inlet end, where a small chimney stands, are getting treated, and in their turn are subjected to the direct action of the furnaces; four to six hours complete the burning operation. It is surprising, considering the small structure, the quantity that can be passed through, 15,000 to 20,000 per twenty-four hours, which are burnt at a cost of only 3d. per 1,000, and the time occupied in the passage of the bricks through the stages of drying, burning, and cooling does not exceed three days. The iron wagons do not suffer from the heat, cold air being circulated freely under the clay bottom, but is excluded from penetrating above it. The kiln is quickly erected, costing about \$2,500, including wagons and all appliances for working it. If used for temporary purposes, three-fourths of its cost is readily portable; in working, wheeling on barrows is avoided. There are no stacks to build and plaster, and the waste of bricks that are used for that purpose avoided; the bricks only being handled once in a green state very much preserves the quality, and about 20 per cent. of the labour used in brick making is avoided; and small orders for special shaped bricks can be supplied in three days.

[We extract the above from the Canadian Mechanics' Magazine.]

The Grangers as Bankers.

The Granger is an universal genius. By education, occupation and training a farmer, he has an itch for storekeeping, grain speculating and—a new development—banking. To succeed in all these different occupations he must possess a variety and extent of knowledge which no class, in this or any other country, does in fact possess. And to tell the truth, we fear he is generally deficient—often lamentably so—in the knowledge which he ought to possess of his own calling. He would be sadly alarmed if he were called upon to undergo an examination in one-tenth of the subjects which scientific men tell us he ought to be acquainted with. It is notorious that he is deficient in scientific and practical knowledge of agriculture; that his crops decrease as the original richness of the soil becomes exhausted; and that, instead of becoming richer with years, he too often becomes poorer. And all because he is wanting in the necessary knowledge of his own calling. We do not desire to reproach him with this want of knowledge; but it is well that he should be told of his deficiencies and if possible be induced to make an effort to supply them. The improvement of his condition depends upon his better understanding his own occupation; and it can only tend to delude him to tell him that he is fitted to carry on the business of merchant, banker, grain speculator, besides working his farm to the best advantage.

Our advice to the Granger is to let banking alone. His true interest lies in perfecting the knowledge of his own calling, and in applying that knowledge in a way greatly to increase the annual produce of the country: the only way in which a nation can add to its wealth. These paper nostrums are a delusion and a snare, which, first befogging, would afterwards strangle the farmers who should put faith in them.—[Monetary Times.]

WIRE FENCING.—The Washburn Manufacturing Co., of Montreal, informs us that the wire fence only requires one post in 20 feet, and some put only one in 25 feet. They claim that the wire fence is much cheaper and better than the rail or board fence. It is our opinion that it will come into general use. All contemplating fencing should enquire into it.



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 open, and postage will be only 1c. per ½ ounce.

The Potato Bug.

SIR,—I should like to know from some of the numerous readers of the *ADVOCATE* if there has been any thing found out to take the place of the Paris Green to destroy the potato bug. I have never had a good crop of potatoes since I commenced to put on the Paris Green, four years ago.

I put about a tablespoonful to a pail of water, but I find that after I sprinkle them that the leaf begins to wilt and wither, so that I think the Paris Green is an injury to them in preventing them from coming to perfection. The fall wheat does not look as well around here as last year. Where the snow lay on long in the spring it is quite thin.

A. S., Tara, Ont.

[We have not found Paris Green to cause the wilting of the leaf of the potato plant, though the incessant attacks of the beetle are a serious injury to the quality of the potatoes, by preventing them maturing sufficiently. There is another poison now coming into use, and used as Paris Green, called London Purple. It is said to be less costly, fully as effectual, and less dangerous in handling; but it has not been generally tried. The following is a new cure, but we have no experience of it. It is worth a trial:—For the last five years I have not lost a cucumber or melon vine or cabbage plant. Get a barrel with a few gallons of gas-tar in it; pour water on the tar; always have it ready when needed; and when the bugs appear give them a liberal drink of the tar-water from a garden sprinkler or otherwise, and if the rain washes it off and they return, repeat the dose. It will also destroy the Colorado potato beetle, and frighten the old long potato bug worse than a threshing with a brush. Five years ago this summer both kinds appeared on my late potatoes, and I watered them with the tar-water. The next day all Coloradoes that had not been well protected from the sprinkling were dead, and the others, though their name was legion, were all gone.]

Pruning Pear Trees, etc.

SIR,—Will you please inform me through the *ADVOCATE* the proper time and method of pruning your pear trees. I have some Clapp's Favorite and Flemish Beauty trees which have been planted three years. Last summer they made a very long growth, and the boughs are so limber that the west wind will soon unbalance the tops. (1.) Would it be right to cut away say one half last year's growth. (2.) Should young growth on fruit trees, where the limb is not required, be cut away or left until the wood has ripened? Caterpillars in this vicinity have only been about one-third as plentiful this season as in that of 1877-S. A. S. B. Demoritsville, June 2nd, 1879.

[(1.) Yes. You might remove half of last year's growth, and bring the head of tree into uniform shape. The early part of this month is the best time for summer pruning. (2.) Removing any growth not wanted for fruiting, or growing in such a position as to be objectionable. This may be done now and better than at any other time. Cuts made on the tree heal over rapidly at this season.]

From New Brunswick.

SIR,—The weather has been very cold since June came in; have had a very fine seedtime, but the grain, on account of the cold, is backward. Grass promises well yet. A very much larger breadth in roots than usual. Markets very dull. There has been one lot of cattle shipped to England from here this spring, with a satisfactory result. We hope that more shipments may follow. H. F. Point-de-Bate, June 17, 1877.

Hungarian Grass.

A St. Hyacinthe subscriber writes:—My hay crop is so light that without some additional fodder I cannot bring my stock through the winter. Is it too late to sow Hungarian Grass for hay? I will feel obliged by your reply in the *FARMER'S ADVOCATE*.

[Hungarian Grass is very profitable, both for cutting green for stock and also to add to the stock of hay for winter use. It is not yet too late, if sown at once. This crop can be sown at any time from the first of June to the 10th of July, but the later it is sown the richer the soil ought to be made before the seed is sown. When sown about the middle of June the crop is ready to cut for soiling by the first of August. The grass which is sown for hay should be sown rather thick and fully at the rate of a bushel per acre. It should be cut before the seed is much developed. Many recommend it should be cut when the beet is in the milk, but in fact it should be cut before this period in the life of the plant, and we would prefer it cut about the time the heads are ready for flowering. For soiling, or for cutting for live stock in the fall it may be allowed to stand a little longer without any injury. When fed in the fall green it should be mixed with good straw, and it will be found much better for stock than when cut and fed alone.]

SIR,—Can you give me the remedy for stock bloating on dry food? J. D., Weyln, Ont.

[Professor Law says: The hollow probony passed into the stomach for choking will allow the escape of the gas. In urgent cases the parmah must be punctured with the first instrument that comes to hand, and the openings in the stomach and the skin kept in opposition until the gas flows out. The most suitable instrument is a cannula and trocar, at least six inches long, which may be plunged into the left side in a downward and inward direction. The trocar being withdrawn, the cannula may be tied in and left for hours or days. In the absence of these a pocket knife may be used, and should be kept in the wound until a large seton can be obtained and held in its place. In milder cases, without any surgical resort, the following recipe must be given: Aromatic spirit of ammonia, 3 oz.; crystalline sesquicarbonate of ammonia, 1 oz.; oil of turpentine, 2 oz., in oil, eggs or milk, well mixed; whiskey, brandy or gin, 1 pint; ether, pepper, ginger, oil of peppermint, &c., in full doses; wood tar, 2 oz.; carbolic acid, or creosote, 2 drs. in a pint of water; sulphite hyposulphite, 1 oz.; chloride of lime. Antacids (potassia, soda, ammonia and their carbonates, soaps and lime water). Check the fermentation by neutralizing the acidity. A dose of physic is generally necessary to clear off the offensive food, and should be accompanied by sulphate of soda and ginger.]

SIR,—What is the best kind of grass to sow to make a lawn, and what time of year is best for sowing? A. S. G., Wyoming.

[The best kind of grasses to constitute a good lawn are "Creeping Bent Grass," sweet-scented vernal; "Rhode Island Bent," crested dogstail; with a slight mixture of White Dutch Clover, and when purchasing ask for "Fine Mixed Lawn Grass," and you will get the proper seed required to make a good lawn. The seed may be sown in spring or fall, but if sown in hot weather a slight sowing of oats among the grass, which vegetates quickly, will serve to protect the springing grass. For forming new lawns 20 to 30 lbs. of seed are required per acre, and should be regularly and evenly distributed.]

SIR,—What remedy would you recommend for a case of lampas in a young horse. His gums and palate are swollen so that he has great difficulty in eating his hay. J. A., Napance, Ont.

[Fullness of the gum and palate often trouble young horses during the spring months; and some senselessly aggravate the evil by searing the tender surfaces, congested and turgid from the cutting of the teeth. This lampas, as it is termed, disappears as the teeth come in, but if meanwhile the colt is unable properly to chew his food, it should be given bruised or softened, and, where needful, the swollen gums may be incised with a sharp knife. The teething cough sometimes accompanying these cases seldom requires any treatment beyond a good nutritive diet, and a daily allowance of two pounds of linseed cake.]

Horse-Shoeing Competition.

SIR,—An interesting feature of the Annual Meeting of the Bath and West of England Agricultural Society, recently held at Exeter, England, was a horse-shoeing competition, and from the good that it seems to promote I should think it might be profitably introduced into Canada. A Mr. Mills, of Exeter, has a theory as to the composition, or rather physiognomy, of the horse's foot, which was once received and believed in by the majority of veterinary surgeons and farmers, viz., that the hoof expands when coming into contact with the ground, and contracts when lifted. The B. and W. of E. Society also encouraged the theory, and allowed Mr. Mills to offer prizes for horse-shoeing up to last year. Now, however, the theory has exploded, and is discarded by the Society. They felt, too, that they could not well discontinue this competition, which has become such a popular feature of the Show; so this year they give the prizes, which are—1st, three guineas; 2nd, two do.; 3rd, one do. The competition was watched throughout by at least 500 people. There were 33 competitors, from all parts of England. Each smith was provided with forge and anvil, and was allowed an assistant. Whatever polish he put on the shoe had to be done with the ordinary rasp. The prizes were awarded for excellence of fit, general workmanship and time. Many can remember at these matches some excellent work done in 18 or 20 minutes; this year, among many good specimens of work, the time occupied has been as much as 45 minutes. The first prize was taken by Philip Rundle, of Colebrook; the second by W. R. Ridgement, of Enmore; and the third by Henry Butcher, of Exeter.

DEVONIAN, Exeter, Devonshire, Eng.

Sheep Raising.

SIR,—As a subscriber to your valuable paper, I should feel obliged if you would give me a little information respecting sheep raising, as I am thinking of going into that business rather extensively, with a view of exporting to England. I have 200 acres of land, about 80 of which is at present seeded down—about 20 of it this spring. I am anxious to know how many sheep I can keep—and when I say keep I mean keep well—on this 200 acres? I have now nearly 70, part Leicesters and part Southdown, including two thoroughbred Southdown rams, and intend in a short time purchasing a number more—ewes, of course. Would you kindly inform me the best kind to get? My own idea was to get Leicesters and cross with the Southdowns. Please tell me what you think about it. If you advise buying Leicesters, when would be the best time to get them, now, after they are shorn, or in the fall, about September or October? Also, where can I get them, and what price can I get them for? And finally, do you think they will pay if properly managed? Pardon the trouble I am putting you to, but some day I may have an opportunity of reciprocating. I enclose my card.

FARMER, Hamilton, Ont.

[The Southdown sheep is highly valued as producing mutton of superior flavor. English purchasers sometimes object to Canadian mutton as being too fat. This objection does not hold good against the Downs, and is only applicable to the long-wooled sheep—Leicesters, Cotswolds and Lincolns. The Southdown is to be preferred to any of the long-wooled animals for a mixed flock, and his progeny from Leicester dams or others is an excellent cross, possessing the superior mutton qualities of the Southdown, with increased size from the Leicester dam. The feeding of such crosses for the English market is profitable. The number of sheep to one hundred acres varies much with the nature of the soil, its fertility and the variety of grasses. Some English grass farms carry ten sheep to the acre, while many pastures feed but three sheep with their lambs, till the lambs are sold off fat. For the winter hay and turnips will be needed, and a little grain. A good crop of Swedes will feed ten to fourteen head per acre for five months. From these data an estimate of the number for a two-hundred-acre farm can be readily made.]

An esteemed correspondent writing under date of 14th ult., from St. Catherines, Ont., states that quite a number of peach trees have died in the district between Grimsby and Niagara. Some think that high cultivation is the cause, others attribute it to the wet weather last fall, and the sudden frost when the ground was saturated with water. Mr. Adolphus Pettit, of Grimsby, has lost between 200 and 400 trees.

Fayette Co. Fine Stock Association.

SIR,—will you kindly publish the following account of the Fayette Co. Fine Stock Association, in which many Canadians feel much interested:

Mr. John Irvine, accompanied by Mr. W. W. Kitchen, of Grimsby, Canada, were waiting for the train, ready to convey the company to their extensive stock farms, 2½ miles from Oelwein. Conveyances being furnished, the party—about 200—set out in regular order for the residence of Mr. John Irvine, forming a grand procession. The whole party were very cordially received and entertained by Mr. and Mrs. Irvine. After a few moments rest the party (ladies and gentlemen) strolled down into the field to look at that beautiful herd of Shorthorns owned by Messrs. Irvine and Kitchen, the finest herd of Shorthorns in Northern Iowa. The cattle were in fine condition and very quiet, so that all who wished could approach and handle them. The Irvine and Kitchen herd numbers about 100 head, and Mr. K. informs us that while at the Centennial he refused to take \$6,000 for two of the Centennial prize cows now running with the herd. Messrs. Irvine and Kitchen have been to quite an expense to plant this herd of Shorthorns in Fayette county. We can assure the public that there is no better blooded Shorthorns in the State than can be found in this herd. The young bull Golden King, two years old past, is as fine an animal as we ever saw; his weight is 1,700 lbs. His dam is imported Golden Drop; his sire is Proud Duke by 10th Duke of Thorndale.

After the party had examined the herd, all were invited to a grand dinner, set on a table in the grove. The table was supplied with everything needful to make the company satisfied and happy, and all present seemed to act as though they were on the very pinnacle of social enjoyment, and we venture to say that a better or more enjoyable occasion never was had in Fayette county.

Mr. Irvine has a splendid farm of 300 acres under cultivation, with good buildings and considerable fruit and good water.

During our visit we had the pleasure of looking over the large and extensive farm, owned by W. W. Kitchen, of Grimsby, Canada. It contains 500 acres of land, all improved and well fenced. A fine stream of spring water runs through the farm, out of which fish have been caught this season that weighed five pounds. He has good farm buildings. There is over 300 acres of grain standing on the farm, all of which bids fair to be bountiful in its yield.

The celebrated Kitchen herd, and also the Kitchen farm is now under the contract of Mr. John Irvine, and it is well worth a person's time to go and see the best herd of Shorthorns in the north part of Iowa.

It now being nearly train time the party left for Oelwein.—[Iowa State Express.

W., St. Catharines, Ont.

SIR,—Since the advancement of the vernal season induced the treasures of flora to leave their winter retreat, and show themselves in all their variety of forms and colors, we have experienced very variable weather. Since the 22nd of May the thermometer has been anywhere between 89° and 44°. The frost of the 23rd of May did little damage at Owen Sound, and along the bay shore, but back in Keppel the plum and cherry blossoms were affected, and the young clover touched. The thunder showers and warm weather we have had since, have had a very beneficial effect. Fall wheat is looking well, and so are the spring crops. The potatoes are growing fast, and the lovely potato beetles are seemingly more numerous than ever. Strawberries are plentiful and will soon be ready to furnish out the annual strawberry festivals. Pathmasters have commenced the performance of the farce known as statute labor. It appears to be a difficult matter to get any legislative measures passed for the farmer's benefit, unless it can be made a party measure. If the statute labor had to be commuted for 50 cents per day, and the work performed by contract, more and better work would be done for the money, and as to preventing cattle going at large, every municipality has power to pass a by-law to that effect, but so long as the councillors themselves are as great offenders as any, no such by-law will ever be passed. The best plan would be to pass a law rendering it imperative on County Councils to pass a by-law to prevent cattle running at large within the county, whenever a certain number of the ratepayers shall petition them to that effect. We must keep these grievances in store for the next session of our Provincial Legislature.

SARAWAK.

SIR,—Suppose that I own twenty-five acres of good arable land, all of it fit for cultivation, within one mile of a town of 3,000 inhabitants. Suppose further that the whole of it is thoroughly cultivated, and that a specialty is made of the most profitable crops. Assuming also that it is well managed, and that there is a ready sale for all the products at prices that would be considered average in any town in Ontario. Taking these things for granted, can you give me an outline of (1) what crops would be most profitable; (2) the acreage of each; and (3) the gross value of the product of one season's work.

All the circumstances are supposed favorable, and it is upon this basis I want to have your calculation? Leave untoward events out of the question, and select such crops as will give the highest financial results. Give the gross value of the product; and, if it is not too much trouble, an estimate of the cost of running the farm for one year, leaving out of the question the interest on the price of the land, which will vary considerably in different localities. Answer through the ADVOCATE in first issue convenient, and oblige,

GARDENER.

[We take it for granted that "Gardener" refers in the above to farm crops. All the circumstances being favorable, the greatest profit would be derived from crops in a four-year rotation from a twenty-five-acre farm. Say six acres potatoes, 250 bushels per acre, 50c per bushel, \$750; six acres barley, 50 bushels per acre, \$150; six acres soiling crops to feed six cows, with average product of cheese from factory 540 lbs., at 5c per lb., \$43.20 per acre, \$250.20; six acres wheat, 25 bushels per acre, \$1 per bushel, \$150. All the circumstances are supposed favorable, and the produce, as estimated, \$1,309 gross. The expenses you can easily calculate—one man, one horse, and seed.]

A Subscriber, Frontenac, asks: "What is the proportion of dressed beef in a well-fed animal to the live weight?" The proportion varies according to circumstances, as the length of time the animal has been fattening, the food on which it has been fed, the breed, and also the age of the animal. At the Christmas fat cattle show in Smithfield, E., was a steer of the "Young Mary" tribe, which, 1,902 days old, had a live weight of 2,440 lbs. He was slaughtered and dressed by Jacob Thuler. The live weight was 2,400 lbs.; offal, 295 lbs.; tallow, 300 lbs.; hide, 305 lbs.; carcass (four quarters) net beef, 1,700 lbs. The dead weight of beef was 70 4-5 lbs. to the 100 lbs. This is a very large proportion, the steer being high bred, and no expense having been spared in his feeding. The general rule for the difference in weight between live and dressed beeves is as fourteen to eight. From this has risen the difference in the stone weight—the stone weight of live cattle being fourteen pounds, and that of dressed meat eight pounds.

SIR,—Would you please allow me space in your valuable paper to ask a few questions, which you or some of your readers would be kind enough to answer:—1st, Is it possible to force the growth of squash by feeding them with milk, and 2nd, how is it done. By answering those, you will greatly oblige, ENQUIRER, Hemmingford.

[The size, and consequently the weight of the squash, have been greatly increased by feeding them with milk. Would any of our readers reply to Enquirer.]

SIR,—I have a colt, one year old, with a bog spavin. Give treatment in next ADVOCATE, and oblige.

D. T.

[Prof. Law advises the following as a remedy for bog spavin:—Rest, and use a high-heeled shoe. In case of very violent inflammation use soothing measures (fomentation), and when the extreme heat and tenderness have subsided, use blisters, as for bone spavin, or, still better, the hot iron applied lightly, at a nearly white heat. We have known cases of bog spavin in young horses completely cured by treatment similar to the above.]

In the opinion of "A Practical Farmer" corn hay, that is the whole plant grown for fodder, and cut and cured when in its most nutritious condition, if made from sweet corn, is, if well cured but little inferior to average English hay. Cattle appear to eat it equally well with hay, and to thrive upon it.

Several communications are laid over until next issue.

The Grangers' Picnic.

A GALA TIME AT PORT STANLEY—ADDRESSES BY BRETHREN.

This body have held their annual picnic at the Port. The G. W. R. made liberal reductions from the various stations on the different lines of road, and a large number of the farmers availed themselves of the cheap rates to have an outing, the Order from various parts being well represented. About 300 left the station here, and large accessions were made at Wilton Grove, Glanworth and St. Thomas. The prominent members of the Order met at the Fraser House, and nominated speakers for the occasion. Mr. Wm. Belton, London Division Grange, occupied the chair, and in a few remarks urged the necessity of combination amongst farmers. All other professions had their meetings, and he thought it nothing but right that farmers should meet other classes upon fair terms.

Bro. J. Robinson, of Elgin Division Grange, considered farmers had not their interest at heart. They bound themselves to a party, and outside of that they would not act. He considered there was not unity enough amongst farmers to make a perfect organization. He thought the people of Ontario were too much governed by a surplus of legislators and County Councillors. He felt that he could pick out five farmers present who could run the Government of Ontario considerably better than the present Administration.

Mr. James Armstrong, of Yarmouth, spoke at length on the benefits of the Order as a social institution for farmers and their families. He condemned the purchase of groceries, &c., and showed it was a weakness instead of strength to the Order. The great principle they had to follow was unity of action.

Mr. H. Anderson said it did not follow because a farmer belonged to a Grange, or that a given number of farmers combined, that there was unity. In fact, he thought if anything it had been the means of separating them by internal dissension. Farmers should be prepared to sink personal interests, and yield to a majority in their Granges, and work for their common interest.

Mr. D. C. McDonald spoke of the Order as a step in the right direction on the part of the farmers in joining them together for one common purpose—the elevation of farmers as a class; but he thought with previous speakers—a house divided against itself must fall. He thought by unity of action a great good could be accomplished by educating farmers to hold the highest positions in the country.

Mr. W. L. Brown referred at length to the principles of the Order. He did not think much of the commercial principles of the Order. He thought that more should be done to develop a better class of farmers, and have a better representation in Parliament. He also spoke at length on the financial condition of the country.

Mayor Smith had no doubt the Order had done good in weeding out a large number of middlemen, but still they were necessary as a part of society.

Mr. Fred. Anderson, in a lengthy speech, referred to an article of the Rev. W. F. Clarke on farmers' representation, and was followed by Ben Panye, who, in a well timed speech, exposed the fallacies of the opposition to the Grange.

It was proposed to hold a grand picnic of all the divisions West of Toronto in some central place.

No fewer than seven hundred suggestions for getting rid of the Grape Phylloxera—mostly of no account, of course—were made by correspondents to the learned Commission of the Department of the Herault, France, 317 of which were faithfully tried and the results of the toilsome test, together with conclusions drawn from what was previously known, seem to teach that the destruction of the "little but awful" insect is an impossibility, and that the only resource is to so stimulate the vine that it may fruit in spite of its powerful enemy. For this purpose manures rich in potash and nitrogenous matters, especially when they contain any substance which will act as an insecticide, such, for instance, as mixtures having sulphates and earthy and alkaline sulphurets, wood-ashes, soot, ammonia, lime etc., have proved highly beneficial, and by their continued use one cultivator, as mentioned in the *Gardener's Chronicle*, keeps five hectares of vineyard in full bearing while others in the same neighborhood are already dead, or going fast in that direction.

A Farmhouse Dirge.

BY ALFRED AUSTIN.

The following verses—true to nature and to country life—are taken, a few here and there, from the very touching domestic sketch in the Contemporary Review for January :—

"Will you walk with me to the brow of the hill,
to visit the farmer's wife,
Whose daughter lies in the churchyard now,
eased of the ache of life?
Half a mile by the winding lane, another half to
the top;
There, you may lean o'er the gate and rest; she
will want me awhile to stop—
Stop and talk of her girl that is gone, and no
more will wake or weep,
Or to listen rather, for sorrow loves to babble its
pain to sleep.

"Will you lean o'er the gate, while I go on? You
can watch the farmyard life,
The beebes, the farmer's hope, and the poults,
that gladden his thrifty wife;
Or, turning, gaze on the hazy weald—you will
not be seen from here—
Till your thoughts, like it, grow blurred and
vague, and mingle the far and near.
Grief is a flood, and not a spring, whatever in
grief we say;
And perhaps her woe, should she see me alone,
will run more quickly away.

"I thought you would come this morning, ma'am.
Yes; Edith at last has gone;
To-morrow's a week, ay, just as the sun right
into her window shone;
Went with the night, the vicar says, where end-
eth never the day;
But she left a darkness behind her here I wish
she had taken away.
She is no longer with us, but we seem to be
always with her,
In the lonely bed where we laid her last, and
can't get her to speak or stir.

"Yes, I'm at work; 'tis time I was. I should
have begun before;
But this is the room where she lay so still, ere
they carried her past the door.
I thought I never could let her go where it
seems so lonely of nights;
But now I am scrubbing and dusting down, and
setting the place to rights.
All I have kept are the flowers there, the last
that stood by her bed;
I suppose I must throw them away. She looked
much fairer when she was dead.

"She never wished to be smart and rich, as so
many in these days do,
Nor cared to go in on market days to stare at
the gay and new;
She liked to remain at home and pluck the white
violets down in the wood.
She said to her sisters before she died, 'Tis so
easy to be good.'
She must have found it so, I think, and that
was the reason why
God deemed it needless to leave her here, so
they took her up to the sky.

"The young ones don't seem to take to work as
their mothers and fathers did;
We never were asked if we liked or no, but had
to obey when bid.
There's Bessie won't swill the dairy now, nor
Richard call home the cows,
And all of them cry, 'How can you, mother?'
when I carry the wash to the sows.
Edith would drudge, for always Death the
hearth of the helpfulest robs;
But she was pretty—I could not bear to set her
on dirty jobs!

"Some day they'll have a home of their own,
much grander than this, no doubt;
But polish the porch as you will you can't keep
doctors and coffins out.
I've done very well with my fowls this year, but
what are pullets and eggs
When the heart is vain at the door of the grave
the return of the lost one begs?
The rich have leisure to wail and weep, the poor
haven't time to be sad;
If the cream hadn't been so contrary this week,
I think grief would have driven me mad.

"Must you be going? It seems so short. But
thank you for thinking to come;
It does me good to think of it all, and grief
seems doubled when dumb.
An' the butter's not quite so good this week, if
you please, ma'am, you must not mind,
And I'll not forget to send the ducks and all the
eggs we can find;
I've scarcely had time to look round me yet,
work gets into such arrears,
With only one pair of hands, and those fast
wiping away one's tears.

"Come, let us go. Yes, down the hill, and home
by the winding lane,
The low-lying fields are suffused with haze, as
life is suffused with pain.
The noon mists gain on the morning sun, so de-
pendency gains on youth;
We grope, and wrangle, and boast, but Death
is the only certain truth.
O love of life! what a foolish love! we should
weary of life did it last;
While it lingers it is but a little thing: 'tis
nothing at all when past."

Origins of Various Articles.

There are many articles in common use, the
origins of which are seldom thought of. For a
long time, handmills were, in Europe, the only
machines used to grind corn. The art of con-
structing windmills originated, together with other
inventions, with the Saracens. During several
centuries, they used, in France, instead of plates
circular slices of the crust of bread, which were
after dinner distributed among the poor. As early
as the time of Pliny, the Gauls made use of yeast
to raise their bread.

The Egyptians not only set a great value on
broccoli, but even regarded this vegetable as an
object of adoration. It was the Romans who in-
troduced them into Europe. We have the peach
from Persia, in which country it was actually held
to be a poison. In our climate it has lost, by
transplantation, all its original coarseness, and is
become one of our choicest fruits. The plum was
brought from Syria at the time of the Crusades.
Rabbits were formerly held in such high estima-
tion that they were brought to table as a very
choice dish. They once increased to such an ex-
tent in Spain that they were suspected of mining
the ramparts and the houses of Taragon, so as to
cause some parts of them to fall. Oysters were
looked upon by the Romans as a dainty dish;
and the poet Antonius has celebrated them in his
verses. After the death of this poet, however,
oysters were no more thought of; and it was not
till the beginning of the sixteenth century that
they were again brought into notice.

Sweetmeats were formerly much used to bribe
persons of quality, or judges, to whom a request
was to be made. This custom at last rose to such
a pitch, that Louis IX. of France issued a procla-
mation, wherein he forbade all judges to take
more than ten-pennyworth a week. Philip the
Handsome subsequently curtailed this quantity
to no more than what a person could use in one
day. In the twelfth and thirteenth centuries
good manners required that persons of different
sexes, when invited to parties, should sit down in
couples, and that each couple should have one
plate between them. In families, one goblet was
deemed sufficient for all; and St. Bertrand was
disinherited by his father, who was affected with
the leprosy, for having wiped the edge of the
goblet before he drank.

Beds, now such indispensable pieces of furni-
ture, were to the Greeks and Romans articles of
great luxury. When they exchanged the leaves
and skins of beasts, on which their heroic ances-
tors reposed, for mattresses and feather-beds, the
bedsteads were made sometimes of ivory, some-
times of ebony, sometimes of cedar, and sometimes
of silver. It would be difficult, now-a-days, in the
middle ranks of life, to find beds such as our ances-
tors slept on, not only with their wives and their
children, but their dogs and their friends; an
invitation to such a couch was then considered the
strongest proof of affection and confidence that
could be given.

A Cockney tourist met a Scotch lassie going bare-
foot towards Glasgow, "Lassie," said he, "I
should like to know if all the people in these parts
go barefoot?"—"Part of them do, and the rest of
'em mind their own business," was the rather set-
tling reply.

The Story of Two Visitors.

It was once Causeur's good fortune to spend a
few days in the modest home of an esteemed friend
of slender means, a home that was all that its
owner could afford to make it, yet lacked many
things that would have made it more comfortable
and convenient. During Causeur's stay two guests
were entertained to tea, both of them men of means
and wide acquaintances, accustomed to all the luxury
that wealth can give. But they were widely differ-
ent in their behavior.

They first dwelt upon the fact that the house
they lived in was in an-out-of-the-way spot, and that
there were few or no neighbors; at table he told of
the delicate tea he drank at the house of a friend,
of the rich tea service he had seen upon the table
of another, of the rare old china that was used in
his own household, and of the dainty meals he had
eaten from it. In the cramped little sitting room
after tea, he sat by the stove and talked of the
delights of an open wood fire, of his enjoyment of
rare and costly books and pictures, and of twenty
other things that the host, of whose hospitality he
had partaken, did not and could not possess.

When he had gone it was clear, although nothing
was said, that his visit had caused pain, that it
made the wife feel her straitened circumstances
more keenly than ever, and cast a shadow over
her husband's thoughts.

The next evening came the other visitor. He
brought good cheer in his very face. The room,
he said, felt so warm and comfortable after his
walk, which he added was just the thing to
give a man a good appetite for his supper. At the
table he spoke of everything that was nice, con-
gratulated his host on having such a snug little
home, apologized for eating so much, but couldn't
help it because it was "so good" and tasted "so
home-like," liked the old black tea-pot because it
was just like the one his mother had when he was
a boy, and told his hostess, who was all smiles and
as happy as a queen, that she ought to thank her
stars that she had no gas or furnace to ruin the
flowers that made her room look so cheerful. After
tea he insisted that the children should not be sent
to bed "just yet;" said he wanted to tell them a
story, as he did; and when he had done and had kiss-
ed them good night, they trudged off up stairs with
beaming faces, under the guidance of a mother who
felt that a ray of real sunshine had entered her
home, making it better and happier for all time.

Children.—Trouble and Work.

To spare trouble now in any remarkable degree
to the children that we love is scarcely anything
more than to insure them a double quantity of it
by and by. Now, in their elastic health and spirits,
trouble rolls off them like rain-drops off a leaf; but
having seen it, they are not to be taken by surprise
by it hereafter, and are not stunned and made
helpless by the shock when they find it standing
in their path. There are noble qualities which
only that rude touch brings out—courage, deter-
mination, forbearance, compassion for others,
hatred of wrong; and it would be a poor and false
affection that would leave their characters so one-
sided and imperfect as the absence of these and
similar traits would make it. "Poor child!" says
the unwise guardian: "he is going to his kingdom
soon enough; he little knows the coil there is
before him; let him enjoy himself while he can.
I don't mean that he shall know there is any trouble
in the world until it is forced upon him." Poor
fool! says fate, you are the author of the first and
last trouble he will ever know—the utter inability
to stand up like a man and meet any trouble. The
mother that toils in the kitchen herself, rather than
condemn her daughter to its hot and hateful duties,
feels, doubtless, that she is performing a virtuous
and laudable part; the daughter will have to come
to them all in good time; till then let her enjoy
her childhood. She does not consider that any
enjoyment can be found in the occupation, when,
in truth, with youth and hope, and the intention
to abridge her mother's work, the real enjoyment
would be as great in stirring about the kitchen as
in lolling in a parlor. To do a young girl's sewing
for her may be a far too frequent unkindness on
the part of tender aunts and indulgent elder sisters,
and it is as unwise as it is to bar her out of the
kitchen.

A gentleman being once asked why he talked to
himself, candidly answered, "Because I like to
converse with a man of sense."

Minnie May's Department.

MY DEAR NIECES.—The season has again returned to expect the city visitors. During the heated time everybody that can get away from town to country does so. Many of you that have pleasant country residences expect to have a visit from city friends, who in the summer time seem to think their country cousins particularly dear to them.

The rustic homes and manners are very appropriate to their rural surroundings; urban polish of manner and appearance certainly would be out of place with them. Indeed, the rustic simplicity is very enjoyable. But we must study the country hostess. The summer is her busy season, even when she has no visitors. It matters not whether she makes guests or "home folks" of her visitors, her cares are increased by each additional individual. When, as in many cases, she does everything with her own hand, or has insufficient help, guests may do much to lighten the labor of the hostess. If they are prompt at meals, especially at breakfast, it will be a help. We know a weakness of our city friends is keeping breakfast waiting.

Some housekeepers are unwilling that visitors should assist in household tasks; but there are but few women who are wearied with domestic toils that will not cheerfully permit guests to wait on themselves, to care for their own rooms, and to help about the lighter housework.

How often do we hear the hospitable hostess confess to her friends that she is completely worn out with so much company. One thing due from visitors is to know when to expect them, and how long they wish to remain. Because a woman chances to occupy as mistress the "old homestead," this is no reason that she should entertain all the friends and relatives who may have dear associations of the place. MINNIE MAY.

Answers to Correspondents.

Take equal proportions of resin and castor oil to make fly paper.

The moth will destroy stuffed birds if not kept in a glass case.

Cactus requires rather a shady place, and wants but little water.

Clean your soapstone toys with a brush and soapy water.

To pack eggs, grease carefully, then put in salt. Be sure they do not touch one another.

CLARA.—You can purchase elder-flower water at the perfumers, or you can make it for yourself in the season by simply pouring hot water over a quantity of elder flowers in a jug, then straining. When cold apply it to the face with a soft piece of cambric, or sponge.

ALICE.—There are exceptions to all rules, and in all cases. Thus, for instance, a young person of slender figure may become too fat and round in the face. There is no remedy for it.

RECIPES.

GINGER BEER.

Two gallons of ginger beer may be made as follows:—Put two gallons of cold water into a pot upon the fire; add to it two ounces of good ginger bruised, and two pounds of brown or white sugar. Let all this come to the boil and continue boiling for about an hour. Then skim the liquor, and pour it into a jar or tub along with one sliced lemon and half an ounce of cream of tartar. When nearly cold put in a teaspoonful of yeast to cause the liquor to work. The beer is now made, and after it has worked for two days strain it and bottle it for use. Tie the corks down firmly.

The following is for making a very superior ginger beer. The honey gives it a peculiar softness, and from not being fermented with yeast it is less violent in its action when opened, but requires to be kept a longer time than usual before use. White sugar, five pounds; lemon-juice, one-

quarter of a pint; honey, one-quarter of a pound; ginger, bruised, five ounces; water, four gallons and a-half. Boil the ginger in three quarts of the water, for half an hour; add the sugar, lemon-juice, and honey, with the remainder of the water, and strain through a cloth; when cold, add a quarter of the white of an egg, and a small teaspoonful of essence of lemon. Let the whole stand four days, and bottle; this will keep many months. This quantity will make one hundred bottles.

RED CURRANT WINE.

To make six gallons of red currant wine, put twenty pounds of currants and four quarts of raspberries into a clean tub. Mash them well, and add to them fifteen quarts of cold water; next day strain the liquor, and return it into the tub, with twenty pounds of loaf sugar. Let it stand two or three days to work; then take off the scum, and put the liquor into the barrel. Put the bung lightly in, and in a week add a quart of the best pale French brandy, and stop it up.

STRAWBERRY SHERBET.

The berries must be not only ripe but fresh. Crush them to a smooth paste, and add to each quart of berries three pints of water, the juice of one lemon and one teaspoonful orange-flower water; let the mass stand for three hours, then strain it over the sugar, allowing three-quarters of a pound to each quart of berries. Stir until the sugar is dissolved; strain again and set in ice for two hours or more before using it.

LOTION TO PROMOTE THE GROWTH OF THE HAIR.

Eau de Cologne, two ounces; tincture of cantharides, two drachms; oil of rosemary and oil of lavender, of each, ten drops.

BLACK SPOTS ON THE FACE.

Little black specks are occasionally observed upon the nose and forehead of some individuals. These specks, when they exist in any number are a cause of much unsightliness. They are minute corks, if we may so use the term, of coagulated lymph, which close the orifices of some of the pores or exhalant vessels of the skin. On the skin immediately adjacent to them being pressed with the fingernails, these bits of coagulated lymph will come from it in a vermicular form. They are vulgarly called "flesh-worms," many persons fancying them to be living creatures. These may be got rid of, and prevented from returning, by washing with tepid water, by proper friction with a towel, and by the application of a little cold cream. The longer these little piles are permitted to remain in the skin, the more firmly they become fixed; and after a time, when they lose their moisture, they are converted into little bony spines, as dense as bristles, and having much of that character. They are known by the name of spotted acne.

TO REMOVE THE ODOR OF PERSPIRATION.

The unpleasant odor produced by perspiration is frequently the source of vexation to persons who are subject to it. Nothing is simpler than to remove this odor much more effectually than by the application of such costly unguents and perfumes as are in use. It is only necessary to procure some compound spirits of ammonia, and place about two tablespoonfuls in a basin of water. Washing the face, hands and arms with this leaves the skin as clean and sweet as one could wish. The wash is perfectly harmless, and very cheap. It is recommended on the authority of an experienced physician.

LEMONADE.

For lemonade, allow three lemons to a quart of water and six tablespoonfuls of sugar. Squeeze the lemons upon the sugar, add a very little water, and let it stand fifteen minutes before adding the remainder of the water; ice well. Where it is desired, one lemon out of the three may be sliced instead of squeezed. Orangeade is made in the same manner, substituting oranges for lemons.

WALNUT CATSUP.

Gather the walnuts when a needle will readily pierce them. Bruise thoroughly 120; put with them three-quarters of a pound of fine salt and a quart of vinegar; stir them every day for a fortnight; then strain; squeeze the liquor from them through a cloth; add to this one ounce of whole black pepper, forty cloves, half an ounce of nutmeg bruised, half an ounce of ginger, and a few blades of mace. Boil the whole for half an hour; strain and bottle for use.

Layering Carnations.

London Garden gives an account of the successful propagation of carnations by M. Gouthier, as contained in the French floricultural journal, *Fleurs de Pleine Terre*, by wrapping strips of sheet lead about the portion to be rooted. The lead is to encompass the shoot both above and below a joint, we suppose, although it is not so stated. The lead used for these cups is of the thickness of strong paper, and cut into triangular bands. These are formed around the finger to a shape somewhat like a small sugar paper. The soil employed is fine, and the same as that used for culture in pots; threads serve to support the cups in position, and a pin thrust through helps to secure them and keep the layer in position.

The sections wrapped, of course, retain their upright position, and must be supported thus by being tied loosely to stakes. Water must, of course, be given often enough so the soil is kept constantly moist. The plan will work as well for all soft-wooded or succulent plants, and a nick or slight girdling below where the roots are to be formed will greatly assist.

For summer propagation in the garden, we have found the old way of layering in the ground and pegging down to be easier, and it will be found quite as successful. This is done by making a slit between joints, in the shoot, and half way through, putting a wedge between to hold the cut surfaces apart, pegging into the ground, covering about two or three inches with fine porous earth, and keeping moist. Florists who have facilities for striking, use cuttings simply. These are struck into clean sand and kept moist until rooted, when they are transferred into small pots. By the cup system the plants, if kept moist, may be left until thoroughly rooted, which is not the case when cuttings are "struck" in sand on the propagating bench.

Arrangement of Rooms.

Give your apartments expression—character. Rooms which mean nothing are cheerless indeed. Study light and shade, the combination and arrangement of drapery, furniture and pictures. Allow nothing to look isolated, but let everything present have an air of sociability. Observe a room immediately after a number of persons have left it, and then as you arrange the furniture, disturb as little as possible the relative position of chairs, ottomans, and sofas. Place two or three chairs in a conversational attitude in some cheery corner, an ottoman within easy distance of a sofa, a chair near your stand of stereoscopic views of engravings, and one where a good light will fall on the book which you may reach from the table. Make little studies of effect which shall repay the more than usual observer, and do not leave it possible for one to make the criticism which applies to so many homes even of wealth and elegance,—"fine carpets, and furniture, a few pictures, and elegant nothings—but how dreary." The chilling atmosphere is felt at once, and we cannot divest ourselves of the idea that we must maintain a stiff and severe demeanor to accord with the spirit of the place. Make your homes then so cosy and cheerful that if we visit you, we may be joyous and unrestrained, and not feel ourselves out of harmony with our surroundings.

A Warning.

An intelligent writer calls the attention of all consumers of kerosene oil to the pernicious and unhealthy practice of using lamps filled with that article with the wicks turned down. The gas which should be consumed by the flames is by this means left heavily in the air, while the cost of the oil thus saved at present prices could scarcely be one dollar a year for the lamps of a household. His attention was called particularly to this custom while boarding in the country where kerosene was the only available light. A large family of children living in the same house were taken ill one night, and on going to the nursery the mother found the room nearly suffocating, with a lamp turned down; whereupon the physician forbade the use of a lamp at night, unless turned at full head. He says he could quote many cases, one of a young girl subject to fits of faintness, which, if not induced, were greatly increased by sleeping in a room with the lamp almost turned out. Besides the damage to health, it spoils the paper and curtains, soils the mirrors and windows, and gives the whole house an untidy air and an unwholesome odor.

Caladium Esculentum.

Variegated leaved plants are quite the fashion at this time, and are becoming more popular every year; they produce a fine effect when planted in oval or circular beds; a bed of them well arranged as to color is a most gorgeous sight, equal to any display of flowers.

One of the most beautiful of the ornamental foliage plants for planting on the lawn, or as a centre for oval or circular beds, are caladiums; they will grow five feet high with immense leaves of a light green color, beautifully veined with various colors. They are bulbous roots and must be taken up with the first frosts; the bulbs should be kept in dry sand in dry temperature. The oldest and best known variety is the (*Caladium Esculentum*) (see cut); the leaves are of immense size, often two feet long and six inches broad; it will thrive when other tender varieties fail.

Simplicity.

The more we see of the world, the more we are satisfied that simplicity is as inseparably the companion of true genius as it is of true greatness. We never yet knew a truly great man—a man who overtopped his fellow-men—who did not possess a certain playful, almost infantine simplicity. True greatness never struts on stilts, or plays the king upon the stage. Conscious of its elevation, and knowing in what that elevation consists, it is happy to act its part like common men in the common amusements and business of mankind. It is not afraid of being undervalued for its humility.

A man who is thus fearless of letting himself down to the level of his fellow-men, in the ordinary amusement and relaxations of life, whatever elevation he may have reached, must possess that innate consciousness of genius which is itself sufficient evidence of its own existence. Those who are afraid of being undervalued or despised for mixing with their fellow-creatures are of the ordinary, every-day race of men, whom chance has made great, and who, like the inmates of unfinished palaces, shut their windows lest people may come nigh enough to detect the abject poverty within.

FACTS ABOUT FOOD.—There is an old saying that what is one's meat may be another's poison, and how often we are reminded of this as we see the likes and dislikes of people for the same articles of food, and learn the reasons therefor. Strawberries, that are so delicious to almost everybody, are poison to many. A prominent member of the bar told us that one strawberry would poison him to such an extent that it would require weeks for him to get over it. An elderly lady of our acquaintance will almost faint away at the sight of a cheese, and wherever she goes this article is banished from the table. Shell-fish are pernicious to many, poisonous and offensive. We have read in a late medical journal a number of instances of those antipathies confirming our own observation. Some persons cannot eat a lobster salad without its having a very curious effect upon their complexion. A lady indulged at supper time in a salad of this kind, and upon her return to the ball-room her face and neck immediately became covered with spots, obliging her to retire. A medical friend tells us that eating veal gives a lady of his acquaintance the nettle-rash, and that orange-peel has produced great nervous excitement. Figs, again, give rise in some people to a sensation like the tickling movement of oats upon the palate.

Dean Swift said:—"It is with narrow-souled people as it is with narrow-necked bottles; the less they have in them, the more noise they make in pouring it out."

Smythe was telling some friends about a wonderful parrot. "Why," said he, "that parrot cries 'Stop thief' so naturally that every time I hear it I always stop. Now, hang it, what are you all laughing about?"

An Egyptian Wedding.

An American lady residing in Cairo, writes as follows, descriptive of an Egyptian wedding:

Hessian Bey was to take to his harem one of the belles of Heluan. Heluan is a watering-place that the Vice-King wishes shall eclipse the famous bathing places of Europe. It is a little green island not far from Cairo; it is dotted with gleaming white houses, in the midst of an immense glittering desert bordered by the Nile.

The women of Egypt look upon the place as a sort of Eden, where they can purchase all sorts of bijouterie and Parisian nothings, and spend their pocket-money as recklessly as their more civilized sisters across the waters. But to return to the marriage. Through the courtesy of Hessian Bey, I was a wedding guest. He escorted me to the door of the bride's house, and there left me. Placing my right hand over my left upon my breast, according to custom, I entered, and the women who guarded the door conducted me to the room prepared for me. I finished my toilet quickly and went into the saloon, and soon after my entrance, the bride, with all her attendants, came from the path and entered the room. It was a bright-colored picture. First came the slaves and servants of the house; in their right hands they held wax-candles, in their left a green basin which contained henna for coloring the nails; the bride followed with her guests. She wore a creamy embroidered silk, with a violet-blue over-dress that was fast-

Lending a Pair of Legs.

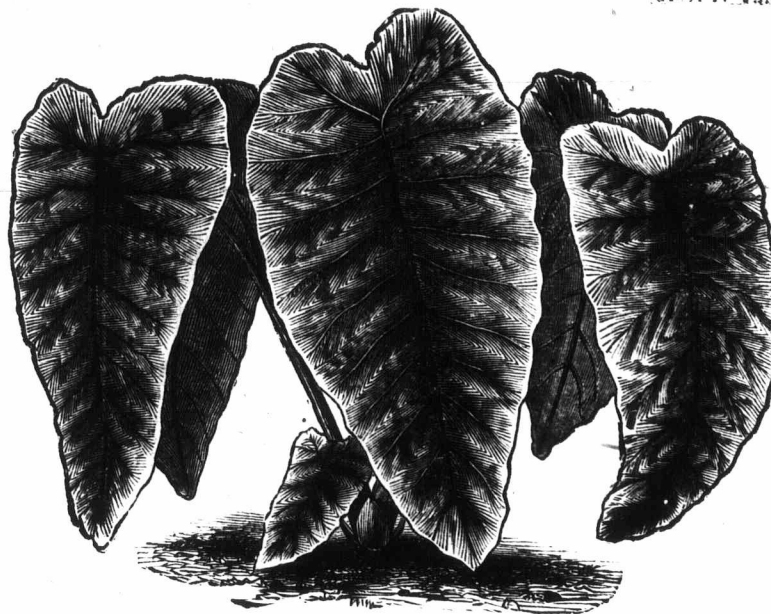
Sometimes we ask people to "lend a hand," and sometimes we hear them say, "lend me your eyes." Here is a story about a boy who lent a pair of legs just to accommodate.

Some boys were playing at base ball in a pretty, shady street. Among their number was a lame little fellow, seemingly about twelve years old—a pale, sickly-looking child, supported on two crutches, and who evidently found much difficulty in walking, even with such assistance. The lame boy wished to join the game; for he did not seem to see how much his infirmity would be in his own way, and how much it would hinder the progress of such an active sport as base ball. His companions, good naturedly enough, tried to persuade him to stand on one side and let another take his place; none of them hinted that he would be in the way; but they all objected for fear he would hurt himself.

"Why, Jimmy," said one at last, "you can't run, you know."

"O, hush!" said another—The tallest boy in the party—"Never mind, I'll run for him, and you can count it for him," and he took his place by Jimmy's side prepared to act. "If you were like him," he said, aside to the other boys, "you wouldn't like to be told of it all the time."

How many times loving hearts will find a way to lend their powers and members to the aged, the poor, the sick, and the weak.



CALADIUM ESCULENTUM.

ened at the waist by a girdle set with diamonds; the little arched feet were encased in pearl-embroidered slippers; the little cap upon her head set with precious stones, and her long, black, shining hair rippled over her shoulders, half-concealed by a gold tissue veil. When she was seated, they painted her nails, the palms of her hands, her feet an orange yellow, and then bound them in white linen. After this operation she retired from sight, but the guests remained, drank coffee, ate confections, and cakes, smoked dainty cigars and watched the dance of the bayaderes, listened to the songs of the almahs and chattered as only a crowd of women can do over an approaching wedding. The next day, the day of the wedding, the bride was led under a purple and gold canopy to the house of the bridegroom. We followed and went up the stone stairs to the vestibule of the harem. Here coffee and fine confections were served. Then the bride's guests returned to her home to await the arrival of the bridegroom's mother, who leaves the house when he enters to claim his bride. And this ends the ceremony.

"You would be very pretty indeed," said a gentleman patronisingly to a young lady, "if your eyes were only a little larger."—"My eyes may be very small, sir, but such people as you don't fill them!"

A young lady about to be married insisted on having a certain clergyman to perform the ceremony, saying, "He always throws so much feeling into the thing; and I wouldn't give a fig to be married unless it could be done in a style of gushing rhapsody!"

Toasts and Sentiments.

May the honest heart never know distress.

May care be a stranger where fortune resides.

May our prudence secure us friends, but enable us to live without their assistance.

May sentiment never be sacrificed by the tongue of deceit.

May our happiness be sincere and our joys lasting.

May the smiles of conjugal felicity compensate the frowns of fortune.

May the tear of sensibility never cease to flow.

May the road of preferment be found by none but those who deserve it.

May the liberal hand find free access to the purse of plenty.

May the impulse of generosity never be checked by the power of necessity.

May we always forget when we forgive an injury.

May the feeling heart possess the fortune the miser abuses.

May we draw upon content for the deficiencies of fortune.

May hope be thy physician when calamity is the disease.

May the single marry, and marry happy.

Oatmeal Diet.

Undoubtedly one of the most healthful and nourishing articles of diet is oatmeal. When properly cooked and eaten with sugar and cream it forms a dish which most people relish better than meat for breakfast, and is very much cheaper. Liebig has chemically demonstrated that oatmeal is almost as nutritious as the very best English beef, and that it is richer than wheaten bread in the elements that go to form bone and muscle. Professor Forbes, of Edinburgh, during some twenty years, measured the breadth and height, and also tested the strength of both arms and joints, of the students of the University—a very numerous class and of various nationalities, drawn to Edinburgh by the fame of his teaching. He found that in height, breadth of chest and shoulders, and strength of arms and loins, the Belgians were at the bottom of the list; a little above them the English; and the highest of all the Scotch, and Scotch-Irish from Ulster, who, like the natives of Scotland, are fed in their early years at least one meal a day of good oatmeal porridge.

"Is that the second bell?" inquired a gentleman of a colored porter. "No, sah," answered the porter, "dat am de second ringin' ov de fust bell. We hab but one bell in dis 'stablishment."

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES,—A little advice about talking may be read with interest, and be beneficial to some of our nephews and nieces, who, when young, if corrected of erroneous habits, are more easily broken.

How tired we get of hearing any one perpetually talking of their own affairs, their bodily ailments, domestic trials, vexatious lawsuits, elaborate schemes, or of their rich relations, and distinguished friends. No one is considered great merely because he knows great people. Always try to speak distinctly, not too fast, slow or loud, and not vociferously. Be careful not to interrupt another who is speaking without sufficient cause. In ordinary conversation give your company a fair chance, and do not monopolize all the talk, for there are people whose speech is like the steady flow of oil from a capacious tank, and it seems as though it might gush on uninterruptedly for ever. Whatever you are talking about, do not annoy the listener with the perpetual question, "don't you think so?" This questioning often is an intolerable nuisance. Do not get in the habit of depreciating yourself, which is well understood to be one way for fishing for a compliment. If you have a hobby, spare your friends the infliction of hearing the same subject every time you meet them. Do not talk too much about people, though the temptation is great, because most people are fascinated by personal gossip. It is a melancholy feature in our nature, that we retail all the little particles of scandal that happen to be floating in the air. There is nothing so despicable as the person who despises everybody else. Finally, never allow your talk to be defiled with slang, and do not talk too much nonsense. It is disgusting and repellant to encounter one who never seems to be in earnest about anything, treating everything with ridicule or scorn. The general observance of these simple rules would greatly improve the ordinary intercourse of society.

UNCLE TOM.

PUZZLES.

63—AN ENIGMA.

My first is in bread, but not in meat;
My second is in corn, but not in wheat;
My third is in garden, but not in field;
My fourth is in skinned, but not in peeled;
My fifth is in dish, but not in tub;
My sixth is in tree, but not in shrub;
My seventh is in conversation, but not in talk;
My eighth is in ramble, but not in walk;
My ninth is in fruit, but not in vegetable;
My tenth is in strong, but not in able;
My eleventh is in game, but not in play;
My whole is a city in Germany.

ALLEN JONES.

64—NUMBERED CHARADE.

Whole, I give a general view. 1, 2 is my father;
7, 8, my mother; 3, 4, 5, 6, my daughter; and
5, 6, 7, 8, my servant. My 7, 2 does not care a 5,
2, 1, what the 7, 6, 1 says, for while the 1, 4 is
navigable, the 5, 6, 7, will supply us with wool. It
now being 7, 4, 5, 3, I feel inclined for a 3, 2, 1, so
say adieu.

EUREKA.

65—CHARADES.

My first is a circle; my next you will find
Much used by a very great part of mankind:
If you happen to speak of yourself, my third
Is sure to be there, and sure to be heard;
My fourth to progress, or advance, signifies,
A motto for those who in life wish to rise;
My whole you possess—even now, it may be,
You are passing it, while you seek for the key.

66.

My first thing you must guess,
Part of a ship will best express;
My next you on the water do—
A very good amusement, too.
My whole will name a little bird,
Whose voice you've very often heard.

LUCY CRUSE.

67.

My first you'll find's a negative;
My second's an affirmative;
My third, if I should give the clue—
It is not me, but you;
And if the three they are combined,
They very soon will bring to mind
Something which is cordial and
Invigorating, too.

68.

Where is my primal? look at home;
Open your mouth and see,
Or seek in primeval books,
Where ancient fossils be.
My second often wrings the heart,
Brings sorrow to the head,
And sometimes makes the sufferer
To wish that he were dead.
My whole is very hard to bear,
Yet often runs from ear to ear.

69—LOGOGRIPE.

At first I name a growth that's out,
Sometimes daily, sometimes weekly.
Transpose me, and then I become
A support to strong and weakly.
Behold me now, and straight I tell
What you my friends thus far have done.
Then transpose me, and I express
What you might call a loved one.
Once more, if you my form will change,
And perform it as it should be;
I name to you a little word
That a brave man's motto would be.
Cut off my head, and once again,
Transpose my tiny form aright,
And a part of yourself I shall
Finally reveal unto your sight.

70—PICTORAL REBUS.



Answers to June Puzzles.

55—Africa, Australia, France, Richard, Ink, Chicago, America.

56—Man, pan, ran.

57—

P
N E T
V I T A L Y
V I C E R O Y
O V E R R E A C H E
P E T E R S I M P L E
F R I G I D I T Y
G R A M M A R
A S P E N
E L F
E

58—Cowslip.

59—1, Cart, cat. 2, Morose, moose. 3, Crow, cow. 4, Crook, cook. 5, Struck, stuck.

60—1, Hoop, pooh. 2, Dial, laid. 3, Garb, brag. 4, Bats, stab. 5, Lee, eel. 6, Reward, drawer. 7, Yam, may.

61—Stable, table, able.

Stone, tone, one.

Charm, harm, arm.

61— I S A B L E 2 G I M E L
A R R O W I T A L Y
B R A V E M A K E R
L O V E R E L E M E
E W E R R L Y R E S

Names of Those Who Sent Correct Answers to June Puzzles.

John A. McDonald, Eliza Leach, Alex. Somerville, George Trevail, Francis Elliott, Robt. Lockwood, Nelly Cumberland, Amelia Vail, Harry Phillips, T. J. Taylor, Bosie Shore, Percy Sutherland, Sarah Cowan, Hannah Parkins, Theo. Summers, Edward Harris, Edward Curtis, Jessie Green, Ellen Burroughs, Bessy McFarlane, Noah Bayly, T. N. Weston, John Scott, Henry Marling, Lucie Hammand, Mary Weekes, Jesse Garden, Joel Stowe, T. J. Inch, Maud Grier, James Smith, B. L. Lucifer, F. T. Netherland, J. L. Thompson, M. J. Dutton, Edwin Cooper, Fred Mercer, John Butter, Elias Crompton, M. J. Smith, Sarah Vining, James Anderson, John Malone.

Honorable mention is made of Mary Weekes having answered the greatest number of puzzles correctly.

"Doctor," said an old lady, "I'm so troubled in my sleep. Last night I saw my grandfather, who has been dead thirty years." "What did you eat before you went to bed?" "Asked the doctor.—"Nothing but half a mince-pie."—"Well, if you had eaten the other half you might also have seen your grandfather."

Inside a Turkish Harem.

In Mrs. Burton's "Inner Life of Syria" we find the following pleasing picture of harem life:—"The moment we arrive and are announced the whole family will run to meet us at the boundary gate which separates them from the outer world. They will kiss us, and take our hands, and, with all the delight of children, lead us to the divan, and sit around us. One will fly for sherbet, another for sweets; this for coffee, that for narghilehs. They are so pleased with a trifle; for example, to-day they are quite delighted because we are dressed like them, and they consider that we have adopted their fashions out of compliment to them. They find everything charming, and are saying how sweet we look in their clothes. If we were habited in our own clothes they would be equally happy, because they would examine every article, would want to know where it was bought, what it cost, how it was put on; and if they could find it in the 'sook' (bazaar). Their greatest happiness is to pull your hair down to see how it is done, and to play with your hat. If you come in riding habit, they think you are dressed like a man. A lady's cloth riding under-garments are an awful mystery to them, and they think how happy we are to dress like men, and follow our husbands like comrades, while nobody says anything against us on that account. They envy us our knowledge and independence, and they deplore the way they are kept and their not being able to know or do anything. They say that we must stay all the evening with them, and are overjoyed at hearing that we accept. They will prepare music and dancing, and send round and gather their friends. Do you hear the tom-tom in the garden? That means that the Sitt (Lady) Leila invites all the harems on her visiting-list to a 'small and early.' In about an hour a hundred women of their intimates will drop in all dressed like ourselves, more or less magnificently. There will be a perpetual nibbling of fruit, sweets, and nuts, a similar sipping of coffee and sherbet, amid the bubble of the fountains, and fifty or more narghilehs. The singing, music, and dancing will be performed by the guests, who will throw in a good deal of talent. It will be quite modest, and not require checking like the professional performances.

Be Independent.

There is nothing in this world that ensures success so completely as does perfect independence. People who are always waiting for help may wait a long time as a general thing; a little assistance, a little recommendation, a little influence, is not to be had for asking, but there is always something one can do for himself. Do it, whatever it is, and do it with a will. One thing leads to another.

If you are a girl, don't sit still and hope a rich man will marry you, while your old father toils for your daily bread. Make dresses, or go into a shop, or—if you know how to be a good servant—into some one's kitchen. Good, honest pluck and sensible independence are a dowry in themselves, and there are men who know it.

If your means place you beyond such need, be independent in another way. Learn how to help yourself, and take care of yourself as much as possible. Rather be one who does things for others than one who must have things done for you or suffer. Two hands, two feet, sight and strength—these ought to enable you to dispense with help while you are young and healthy.

We like men who can defy adverse circumstances, and could earn a living in any quarter of the world in which they were dropped down; who can roll up their sleeves and set to work at almost anything that offers, and who can even sew on their own buttons and make themselves a cup of tea when deprived of the help of womankind.

We like women who are not annihilated when the servant girl goes off in a huff; who could wash a dress or sweep the floor, if either unpleasant effort were necessary; and who, if plunged into the depths of poverty, would fight their own way out of it, asking help of no man.

Independence makes no woman less loving. The most helpful woman are fondest and truest; and as for a man, never trust him in any capacity if he has not within him the true spirit of independence, without which neither strength nor sweetness may be hoped for.

In the battle of life there is but one way to succeed—fight it out yourself. Give the helping hand when you may. Take it if in some sore strait it is offered freely; but never wait for it; be independent as far as any man may be, if you would honour yourself, or be honored by others, or be happy.

Stock Notes.

A meeting of the breeders and importers of Clydesdale horses to effect a permanent organization for the purpose of compiling and publishing a Stud Book of Clydesdale horses for the United States and Canada, will be held at the Grand Pacific Hotel in Chicago, Ill., U. S., on the 12th November next.

Mr. T. D. Hodgins, of the London Oil Refining Company, of London, Ont., has just returned from a trip to England. He has imported twelve fine sheep, Shropshire Downs, for breeding purposes, which he will add to the stock of his excellent farm.

Attention is directed to the advertisement of stock for sale, by Mr. H. Stephens, jr., St. Lamberts, Montreal P. O., and the annual sale of stock at the Ontario School of Agriculture, Guelph, Ont.

Mr. E. B. Morgan, cattle exporter, of Oshawa, Ont., shipped on Thursday (12th June) per SS. Goving, from Bristol, four Shearling Cotswold rams, and forty-six Shearling ewes, which were selected with great care, from the celebrated flock of Mr. Henry Cole, Ashbrook Farm, Cirencester. Mr. Morgan sent out two valuable Exmoor ponies for breeding purposes, by the same steamer.

Fifty of the Canadian sheep recently exported to the Bristol market, made the extraordinary average of £4.50.

We notice that the Imperial Government is advertising in Ontario papers for tenders for supplying fresh meat for the army and navy at Bermuda, West Indies. The quantity required is, for army, 2,500 lbs. per diem, and for navy, 213,000 lbs. per annum. The contract would be for three years from October next.

The North British Agriculturist says:—Mr. S. Campbell, Kennell, Aberdeenshire, has just shipped four young, well-bred and promising short-horns—two heifers and two bulls—from Glasgow for Canada, where several animals from the same herd have already taken a distinguished position. The heifers both belong to the Mina tribe, and were got by the Booth bull Borough Member. The one of the bulls is a Nonpareil and the other a Rosebud, and both were got by Golden Prince, bred at Kinnellar. The Bulls go to Mr. Isaac, Bowmanton, and Mr. Russell, Richmond Hill, Ontario, while along with them has gone a fine young entire draught horse for Mr. Isaac.

PREMIUMS AT FAIRS.—In a large number of cases it is not the money value of the premium that gratifies the recipient; it is the fact that a premium was given at all. Now that Fair schedules are being—or should be—considered and published, we would suggest to those having the matter in charge, that a number of societies offer as premiums a year's subscription to the FARMER'S ADVOCATE AND HOME MAGAZINE, and that those which have done this in a small way at first have found it so satisfactory that they have added to the number of premiums of this kind, and that this custom is increasing. Such premiums do vastly more to promote the objects of the society than mere money prizes. Aside from the fact that one can not fail to be greatly benefited by the teaching of the FARMER'S ADVOCATE AND HOME MAGAZINE, its regular coming once a month is a frequent reminder of the society and its fair, and thus the interest of the recipient of the prize in the fair at which it was given is kept alive the whole year. If the officers who have yet to arrange their premium lists will think of this matter, they will see that they can in no other way make the money at their disposal go so far, and at the same time do as much good, as to award a large share of it in the manner suggested.

FAIRS FOR 1879.—TIME AND PLACE WANTED.—Several announcements of fairs and premium lists have already come to hand, and we make our usual request to the secretaries or executive officers of the various societies, to inform us of the fair as soon as its date is determined. We would suggest to societies the importance of fixing upon the date early in the season and issuing the schedule of prizes. If this is left until within a few weeks of the fair, the work is often hurriedly done, and those who would compete for those premiums that require preparations in advance, are deprived of the opportunity of doing so.

Smith's Falls Agricultural Works.

Foremost among the pioneers in the manufacture of farming implements and machinery in Canada, stands the old and well-known firm of Messrs. Frost & Wood, proprietors of the Smith's Falls Foundry and Agricultural Works, at Smith's Falls, Ont. From a small workshop, started in 1839 for the manufacture of plows, has sprung the present extensive establishment, in which are yearly made over 600 "Buckeye" mowers and reapers, 1,000 horse rakes, 4,000 plows, 400 single reapers, and a variety of other useful farming implements, which have an enviable reputation throughout the Dominion for excellence, cheapness and efficiency. The works, built mostly of stone, occupy about two acres of ground, with a street frontage of 500 feet, and a dock frontage of 500 feet on the canal, with storage of 30,000 square feet.

One hundred and twenty-five workmen are at present employed, but the number in brisk times has run up to one hundred and seventy-five. No better evidence can be given of the character and methods of the fair dealing of this firm than the fact that among its employees are a number who have been in its service for twenty, and even thirty years, and it is also noteworthy that in all the years of its existence work has not been suspended, except for annual repairs during the Christmas holidays, and once in 1854, on account of being burned out, when a month's delay was occasioned for rebuilding; while through all the ups and downs of the commercial history of the country a steady progressive growth has been maintained, and by the uniform excellence of its manufactures, and its liberal, courteous, and straightforward dealings with its agents and patrons, the demand for its productions has steadily increased until now a ready sale is found for them in every portion of the Dominion from Manitoba to Newfoundland. Catalogues of their manufactures can be procured from Messrs. Larmonth & Sons, 33 College St., Montreal, P. Q., or at their branch house, corner of George St. and Bay Ward Market, Ottawa, Ont., besides their agencies throughout the Dominion.

Commercial.

FARMER'S ADVOCATE OFFICE,
London, June 30, 1879.

What is the prospect of the produce market this year? is now the important question for the farmers. The prospects of more than an average crop are presented to us from almost every part of Ontario. With very few exceptions the promise is very good. In some counties the harvest promises to be fully an average one. In some fall wheat, we are informed, looks better than it has done for years. From Elgin, Halton and Norfolk, the reports are not so good. We may, on the whole, expect full granaries and large exportation of bread stuffs. England will need all we can spare.

In some of the Western States the prospect from the wheat is more favorable than earlier in the season, while in others there are indications of a decrease. The wheat production, on the whole will, it is expected, equal, if not exceed that of last year, when the surplus product of the country was unprecedented. The greater area of cereals will, of itself, give a harvest of unusual magnitude, and to this we have to add the yield of, at the least, an average, and there can be no doubt that any deficiency in the crops of Europe will be amply met from this western continent. We need not therefore look forward for high prices.

In the oat harvest there will be a falling off in the States—a less one sown, and a lighter crop than in the harvest of 1878. We expect a fair crop of oats in Canada. It were well were we to devote more attention to the cultivating of oats and corn than we have been in the habit of doing. It would give us a two-fold profit. We would not be wholly dependent on the wheat market, and the greater variety of grain crops would be less impoverishing to the ground than repeated crops of wheat. There has been some change in this respect for the better, and we hope to see it go on increasing.

There has been little or no change in the English markets; the prices remain as they were. The re-

ceipts of breadstuffs has been very large, and the continuance of such large receipts, added to the nigh approach of the time for the arrival of the new wheat from the Southern States, giving an abundant supply to meet all the requirements of the European demand, prevent any advance in prices. The market, however, is reported firm and steady in Liverpool and New York.

Throughout the North-western States the area of the barley is less than last year; nor is the crop so promising as that of Canada. From our principal barley-growing districts there are very favorable reports of growing crops.

Wool in England has advanced two cents per pound, and in the States there is a good steady demand, and prices prevail at good figures. We would advise farmers to avail themselves of the present good demand, as prices will probably decline when manufacturers have enough wool to supply their immediate wants.

Little Falls Cheese and Butter Market.

Reported for the FARMER'S ADVOCATE by PROF. X. A. WILLARD.
LITTLE FALLS, N. Y., June 28, 1879.

The tone of the market can not be considered very flattering. At the commencement of the month the finest cheese advanced to 8 c., while the next grade below went at 7½ c. to 7¾ c., and secondary at 6½ c. to 7 c. The market was brisk, and dairymen generally were in high spirits over future prospects. It was a surprise, therefore, on the next week, to find a decline in prices of fully half a cent, with a dull market, and slow sales. The transactions for the second week in June were about 7,000 boxes, at a range of from 7 c. to 7½ c. per pound, while the bulk went at 6½ c.

On June 16th the market presented a most gloomy aspect. About 10,000 boxes of cheese were offered, but buyers were not anxious to purchase, and sales were slow, at a reduction of from half a cent to three-quarters. However, even at these prices dairymen thought it best to sell, and at the close of the market 8,000 boxes had changed hands at rates ranging from 5½ c. to 6½ c. About 4,000 boxes went at 6 c., and only 187 boxes brought 6½ c. Over 2,000 boxes were sent forward on commission.

For the week ending June 28th, the market was the duldest of the season, with prices down another half cent. The offerings were over 10,000 boxes, of which 8,000 changed hands. The finest cheese sold at 6 c., while the bulk went at 5½ c. Anything not faultless, and strictly prime, was slow of sale at 5 c. to 5½ c., or lower, according to quality, and a considerable quantity was sent forward on commission.

New York factorymen are now making great efforts to put upon the market a superior quality of cheese, as anything not up to the finest goes at a heavy discount. The last delivery was pronounced by buyers to be of the best description.

The butter market during the month of June has been very steady, with little or no fluctuation for fancy and creameries. The ruling prices have been for fair to good from 13 c. to 14 c., and for fancy 15 c. to 16 c.

Grass is now abundant, and a fair yield of milk is being made from the herds. Notwithstanding the low prices dairymen are fully convinced that it is better to send forward all products when ready, believing that a loss would result in holding.

Late advices from England state that the finest sorts of English cheese are usually scarce and command high prices, thus showing how a good article is appreciated. English cheddars bring from 76 s. to 84 s. per cwt.

Secondary sorts of English cheese are not saleable, American taking their place, the quality of which is satisfactory, and prices low.

The best Americans sell in London for 43 s. to 45 s., and secondary for 40 s. to 42 s. per cwt. The old crop sells as bargained for.

For all sorts of secondary butter buyers can nearly name their own price.

Irish Clennells sell for 100 s.; Dorsets, 120 s.; Danish, 90 s. to 104 s.; and New American and Canadian, from 70 s. to 80 s. per cwt. Creamery, 80 s. to 90 s., and old butter, 28s to 32 s. per cwt.

London Markets.

London, June 28, 1879.

Table with columns for GRAIN and PRODUCE. Includes items like Deihl Wheat, Treadwell, Barley, Apples, Butter, etc. with prices per 100 lbs.

Toronto Markets.

Toronto, June 28.

Table with columns for Flour, Barley, Wheat, Deihl, Peas, Butter, Spring wheat, Oats, Pork, Wool.

Liverpool Markets.

Liverpool, June 28.

Table with columns for Flour, Wheat, R. Winter, White, Club, Corn, Oats, Peas, Barley, Pork.

New York Markets.

New York, June 28.

Wheat firmer and unsettled, \$1.13 1/2. Rye, 60c to 61c. Corn 11, 41c to 43c. Oats, 35c to 38c for mixed white and State; 37c to 41c for white. Canadian Peas, 74c to 75c. Barley malt: the demand more general and the market stronger.

Chicago Markets.

Chicago, June 28.

Wheat, 97 1/2c; Oats, 32c; Corn, 34 1/2c to 36 1/2c; Pork, \$9 80; Lard, \$6 10.

Montreal Markets.

Montreal, June 28.

Canada, \$1 01; red winter, \$1 22; white winter, \$1 10; peas, 70c to 77c; oats, 32c to 33c; barley, 45c to 60c. Flour—Strong bakers' \$4 75; spring extras, \$4 40; fine to superfine, \$3 50 to \$4 15. Dairy produce—Butter, in tubs, 10c to 14c; in prints, 15c to 20c; choice farmers' cheese, 6c to 7 1/2c; eggs, 11c to 12c in cases, 16c to 17c in baskets. Foultry—Turkeys, \$1 to \$1 45 cash, or 13c per lb; chickens, 75c to 95c per pair; spring chickens, 45c to 65c; ducks, 60c to 75c. Potatoes, 75c to 85c per bag. St. Gabriel Cattle Market—Beeves, 5c to 5 1/2c per lb, Hogs, 5c to 5 1/2c. Horses—The export demand for horses continues brisk, at good paying prices.

Detroit Markets.

Wheat, \$1.07 1/2 to \$1.12 1/2.

Toronto Cattle Market.

Cattle—The local market remains pretty steady, at full prices, the continued export demand leaving no surplus of good beeves. The English market is well maintained, a decided preference being shown, however, for farmers' fed cattle over distillery fed beef. It is stated that the rates obtained for the former are quite equal to those of best Irish or Scottish animals. Sales have been made during the week at \$5 to \$5 25 per 100 lbs live weight for choice beeves; the local rate is \$4 to \$4 50 for No 1, and \$3 55 to \$3 87 1/2 for second and third class. Sheep—The prices for sheep are: No 1, \$5 50 to \$6 55; No 2, \$4 to \$4 50; No 3, \$3 to \$3 50. Lambs are in fair demand at from \$2 50 to \$4, according to quality. Plenty of calves offer, mostly medium quality, at \$6 16 to \$6; best bring \$7 50 to \$9.

NEW ADVERTISEMENTS.

Choice Herd-Book Alderneys.

The subscriber offers for sale registered Alderney Cows, Heifers, and Bull Calves, bred from imported Stock. To be seen at Slocum Lodge Farm, St. Lambert, opposite Montreal. Catalogues will be sent on application.

HARRISON STEPHENS, JR. Montreal, 23rd June, 1879. DG-1

Patent Knife CURD MILL.

This mill will pay for its use in saving of quality and quantity, as by its use no white whey (cream) is squeezed out.

Much better Cheese with less skill can be made by the use of them.

For further particulars, address, WHITMAN & BURRELL, LITTLE FALLS, NEW YORK, U.S.

JOHN ABEL, Woodbridge, Manufacturer of Steam Threshing Machines, Reapers, Mowers, etc. Send for Catalogue. dg-12

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

SEED WHEAT.

Parties having any new varieties of Fall Wheat for sale will please send samples and prices, also full particulars as to growth, hardness, productiveness, &c.

Our Fall Wheat Circular will be ready early in August. Reserve your orders.

CAN. AGRICULTURAL EMPORIUM, 360 Richmond street, London, Ont. DG-if

Farmers' and Gardeners' Attention is Called to

WISEWELL'S POTATO-VINE SPRINKLER.

(Patented in Canada Dec. 10, 1878.)

SIX ACRES SPRINKLED IN A DAY!

This sprinkler, now being offered for the first time to the public distributes the Paris Green in solution on the vines in the form of a fine spray, UNDER, as well as OVER, the tops of the vines. In addition to the potato sprinkler, there is an attachment for sprinkling

Land Plaster on Turnip Tops at a time when no dew is falling. The machine operates on two rows at once. Any boy can operate it easily. This machine meets a long felt want; if universally adopted will entirely eradicate the COLORADO POTATO BEETLE. Price List, with circular, containing full description of the machine, supplied on application to

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HOW TO MAKE MONEY

NEW PATENT,

Manufactured article that sells readily for 50cts

Everybody Wants One.

Purchasers of Territory are supplied with the article at \$5 per Hundred.

Township rights, only \$50. Samples free to any address on receipt of fifty cents.

Send post-card for circular.

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IMPLEMENTS.

The Planet, jr., Horse Hoe—

This Hoe is pronounced ahead of all others. Price, \$12 each.

The Iron Age Cultivator—

No Farmer or Gardener should be without the "Iron Age." Price, \$10 each.

Blanchard and Union Churns.

—The best churns in the market.

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THE THIRD ANNUAL SALE OF LIVE STOCK at the Ontario Experimental Farm, Guelph, will take place on Friday, 12th Sept., 1879, when several

Shorthorn and Hereford Bulls,

Ayrshire Heifers, a large number of Leicester, Cotswold, Oxford Down, and Southdown Rams and Ewes; as also Berk and Windsor Boars and Sows; with probably several varieties of Seed Wheat, will be offered without reserve.

Catalogues, after 1st of August, on application to

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D9-3

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WITH TWO HULLING CYLINDERS.

FOR SALE AT

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All parties wishing to purchase the best Clover Hulling and Cleaning Machine in America, will please write us for Circulars, prices, terms, &c. Agents wanted in all Clover-growing counties. Address,

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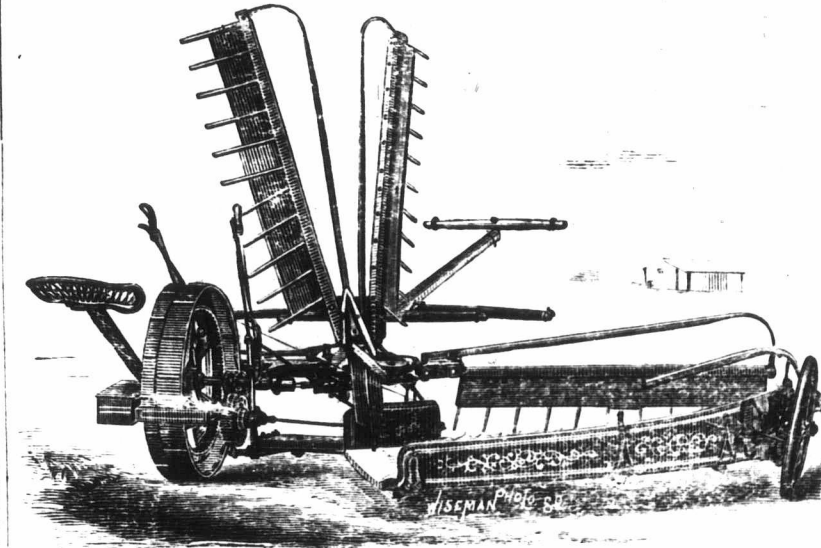
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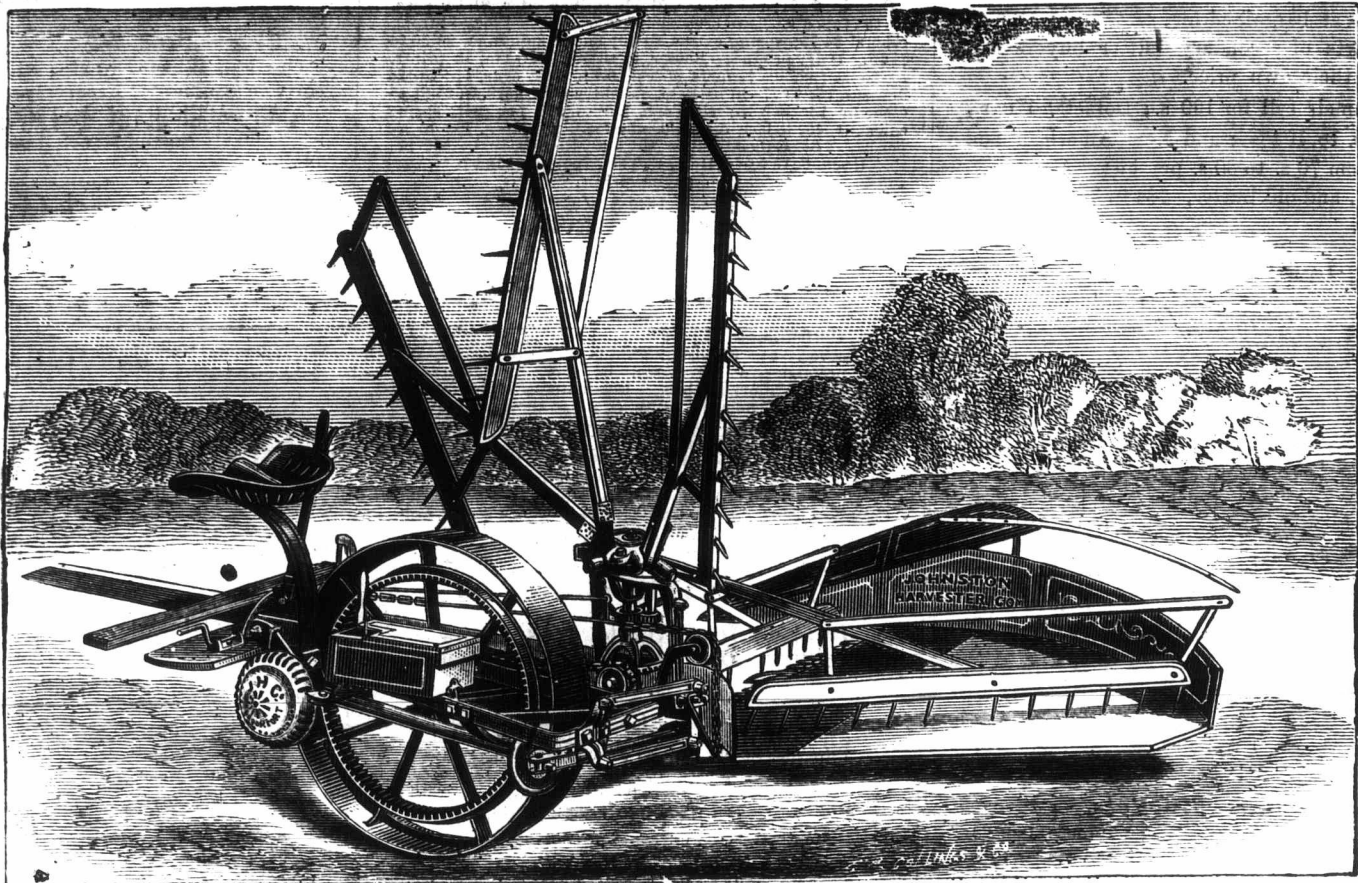
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Shipped on trial at our expense to any station in Ontario. One of these machines cut lodged clover, rolled down, after other machines had gone over it and failed, at Farmouth Centre, June 25th, 1878.

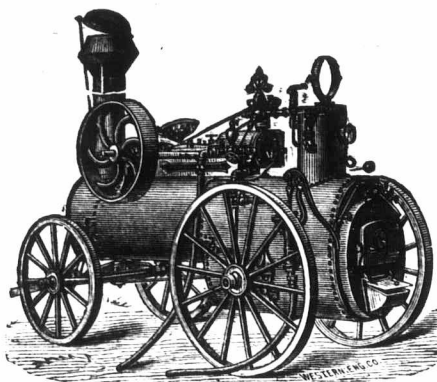
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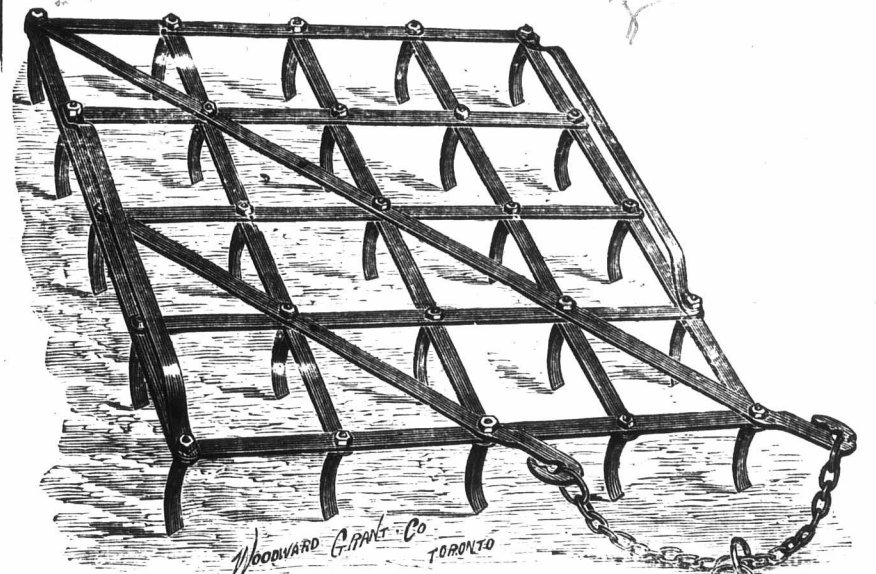
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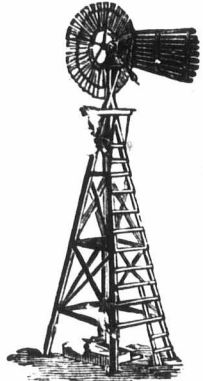
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The cheapest power in use for Farms, Dairies, Gardens, Lawns, Railways, Brickyards, and all places where large quantities of water is used.
Also all kinds of Pumps—wood and iron, force and lift.
Wells dug, Cisterns built and Curbs made.
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Invite inspection and a trial of their
"OSBORN A" STAND,
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Awarded International and Canadian Medals and Diplomas at the Centennial Exhibition at Philadelphia. Further improvements recently supplied give them advantages and facilities for any kind of work unequalled by any. Every machine warranted. All made of the best materials. Agents wanted where none have been appointed.

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