

# FARMER'S ADVOCATE

AND HOME MAGAZINE

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## THE FARMER'S ADVOCATE —AND— HOME MAGAZINE.

WILLIAM WELD, Editor and Proprietor.

The Only Illustrated Agricultural Journal  
Published in the Dominion.

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No prizes, under any circumstances, are given to subscribers, except for sending in one or more new subscribers.

Breeders of draft horses for farm or other heavy work have been often advised to devote special attention to development of "the walking gait." In way of line upon line of useful suggestions on this important subject, we copy the following from *Wallace's Monthly*: "Look carefully to the walking gait of the sires. Accustom the young to walk rapidly, and to this end, if there is any walk in them, never allow them to strike a trot. It is astonishing how rapid a gait can be developed with proper training."

### 50,000 Copies for 1882.

THE ANNUAL EXHIBITION NUMBER of the FARMER'S ADVOCATE AND HOME MAGAZINE, for 1882, will be issued in three special editions. The first edition about the 15th Aug., the second on the 15th Sept., and the third on the 15th Oct. next; 25,000 copies will be mailed before the leading exhibitions and fairs to leading well-to-do and enterprising farmers only, throughout our Dominion.

Our Fifth 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 FARMER'S ADVOCATE, for their confidence in our endeavors to promote their interests, we can assure them that our endeavors will not be relaxed, and that our increased facilities will be used to the utmost for their benefit.

This issue affords special advantages to advertisers who wish to push their business in Manitoba and Maritime Provinces. Advertising rates and sample number forwarded on application.

Send for a Circular.

### Fairs for 1882.

Several announcements of fairs and exhibitions have already come to hand. We would suggest to the different societies to fix your dates as early as possible, and issue your prize list at once, also send a copy to this office.

### Premiums at Fairs.

In many cases it is not the money value of the premium that gratifies the winner. It is the fact that a premium was given at all. Now that fair prize lists are being—or should be—considered and published, we would suggest that a number of societies offer as premiums a year's subscription to the "FARMER'S ADVOCATE AND HOME MAGAZINE." Those who 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 this custom is increasing. Such premiums do vastly more to promote the objects of the society than money prizes. Aside from the fact that one cannot 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 winner 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 list 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.

Trees girdled by mice were saved, says the Fruit Recorder, by covering the wounds close with a plaster of fresh cow manure spread thick on cloth.

### Our Prize Essay.

A prize of \$5 will be given for the best essay on "The most suitable and economical feeding and best cooking for harvest hands, with bill of fare for one week." This essay must be the actual experience of the writer, who must be wife, daughter or other female assistant upon a farm.

The prize of \$5 for the best essay on "Dairy Management" has been won by Mrs. J. L. Smith, of Whitby, Ont.

*The Prairie Farmer*, after giving the figures of the most recent demonstration of the dying Shorthorn mania, remarks, in reference to the animals which the gamble was most exciting: "For the purposes of the general farmer, however, plainer bred stock is equally as good, if not better."

The current records of immense butter production of certain Jersey cows brings to mind the brief but expressive exchange between a listener and a person who had just told an astonishing story of an alleged fact: "Would you have believed that if you hadn't seen it?" "No." "Well, I never saw it."

Colonel Scott, writing in the *Iowa Homestead* of "fancy cattle," speaks of the purchase some thirty years ago of a Shorthorn bull at a public sale in Kentucky for \$6,005, which "proved to be quite useless for stock purposes and was nearly a total loss to his owners"—unless they got their money back in advertising, since the affair created quite a sensation at the time.

General and large use of the "sugar meal" refuse of glucose works as "cheap and nasty" food for the cows of that region, has been found upon investigation to be the cause of the exceptionally poor quality of the Chicago milk supply.

The fly nuisance in stables is said to be greatly abated by sprinkling kerosene over the floor through a hole in the cork of a bottle. A pint is sufficient for a week's use in an ordinary sized stable.—[J. M. M., in Tribune.

Secretary H. M. Jenkins, of the Royal Agricultural Society, England, referring to two samples of colored American cheese both from skim-milk and lard or oleomargarine, ventures to make the seemingly fair suggestion that "steps should be taken to insure that such goods are sold in England under their true name."

Mr. J. B. Olcott remarks that the same argument that defends oleomargarine "because it keeps the price of butter within reasonable limits," "would allow anything, even money, to be counterfeited so as to make its acquisition easy."

At a horticultural meeting in Manhattan, Kan., the other day, Mr. Marlatt, after stating that his five acre orchard had yielded in the past eight years \$2,500, besides fruit for family use, made the suggestive remark that his profits would have been greatly increased "if he had planted the right kinds of trees."

**English Letter—No. 38.**

Liverpool, June 2nd.

There was great excitement, and no little consternation here, on the announcement being made that Messrs. Bell & Sons, of this city, and of London and Glasgow, the agents of the well-known firm of Messrs. Eastman & Co., the dead meat exporters, of New York, had decided, for the present at least, to discontinue the business. At one time it was reported that this great enterprise was supported by the inexhaustible purse of the Vanderbilts, and it may be taken for granted that nothing but serious present losses and a gloomy outlook would have induced even a temporary cessation of a business so vast and complicated; for not only were Messrs. Bell & Co. doing nearly the whole of the wholesale American dead meat trade, but they had opened a number of retail stores in many of our large cities and towns, all of which must now of course be closed. I am not by any means sure that English and Irish farmers, and English butchers, will not regard this as a consummation to be devoutly thankful for, while our lovers of beef-steak and juicy mutton will pay the piper. It largely depends on the extent to which Canada is able to come to the rescue, and I am pleased to learn from reliable sources that the Dominion, even after providing for the heavy demands of the host of new Manitobian settlers, will be able to make a notable effort; and no doubt it will pay well; one firm alone are prepared to ship 13,000 head of cattle during the current month. The causes of the collapse in the dead meat trade are varied. First there are the improved trade and the large importation into the States, causing an enhanced home demand; next, the fact that the last two severe winters have had a serious effect on many of the western herds; the fact that at present prices it pays better to sell corn than to feed stock on it; and finally the high rates of freight. Canadian cattle being free from the provisions of the contagious diseases acts, and being allowed to enter this country alive, ought to reap a large benefit from this changed condition of things. Australian competition, especially in mutton, is not formidable at present, and in my humble judgment it will be a long time before it is. Prices of beef and mutton will probably rule very high here in consequence of the above stated condition of things.

Store cattle were never so dear in my memory; they are scarce at any money. Beef made from 8d to 9d here to-day, and great enquiry for stores to graze.

As I explained in a previous letter, the vast emigration of the current season has occasioned considerable difficulty in obtaining cattle space on any of the regular steamers bound for the Dominion; as this stream of emigrants still continues with unabated vigor, a number of shippers of pedigree stock have secured the whole space of the steamer "Oxenholme," for Quebec, and she left to-day with a cargo of pedigree stock, amounting in value to little, if any, less than £20,000. The different consignments presented a great variety. Probably the most important was a splendid lot of Herefords shipped by Mr. Grasett, the noted breeder, whose celebrated herd of over 100 head is so well known in Canada. I may mention that Mr. Grasett was a cousin of the late Dean Grasett, of Toronto. They are being shipped to Mr. C. C. Bridges, of Shanty Bay, Ontario, and include the celebrated heifer, "Miss Annie," which has taken prizes at the Royal and several other principal shows. Among the others are "Lady Mary," "Gweny 4th," "Clifton 4th," "Lizzie 2nd," "Vanity 11," "Clifton 8th," and other noted animals; forming the finest lot of Herefords ever sent across the Atlantic in one vessel, and I doubt

not that some of them will make their mark at your autumn shows.

Mr. Simon Beattie shipped by the same vessel 28 head of specially selected Galloway cattle, which are entirely different from the Galloways previously sent to the Dominion, and which, it is expected, will be admirably suited in their rough coats and hardy constitutions for the Rocky Mountain ranches. One cow in the lot, Mr. Beattie thinks, can hold her own with any Polled Angus yet seen in the Dominion. These animals go to Mr. Davey, of Wisconsin. The lot includes also the handsome bull "Maori Chief," a great prize winner. Mr. Beattie also shipped for Toronto 21 Shropshire Downs, 5 Cotswold ewes and 2 Oxford Down ewes and 2 rams, all from celebrated flocks.

The Earl of Latham has shipped about a score of very ordinary Shorthorn bulls. I do not see how they can result in profit, as I rather fancy that you have already enough and to spare of similar second and third-rate animals. The "Oxenholme" also took away fine drafts of Polled Aberdeens, Jerseys, Sussex, Ayrshires, and last and not least, a pair of Shetland cattle, about 36 inches high, for a celebrated lady breeder at Rougemont, near Montreal. W. Geary, of your town, has also made a very fine selection of Polled cattle and Herefords, and Shropshire and Lincoln sheep, some of which, if they are shown at your fall shows, will be found hard to beat.

Horses continue very high in price, and few are coming from your side of the Atlantic; Americans, owing to the increased home demand, have entirely stopped shipping, and I hear of several American orders being placed here for saddle horses. Your breeders will do well to watch these signs, for your horse trade is and must be of annually increasing importance.

Mr. H. H. Spencer, of Brooklyn, Ont., and Mr. J. Dryden, M. P. P., of the same place, are in England, and Mr. Macrae is also here purchasing Galloways, and a number of others will be here in time for the Royal Agricultural Show, at Reading, on July 11th. The Canadian Government intend again having an exhibition there, and it will be a powerful argument to the minds of the Berkshire farmers as to what Canada can do.

The interest taken in the Dominion here is by no means waning. Mr. Kellas, representative of the "North British Agriculturist," was a passenger to Quebec by the Allan steamer "Polynesian," on Thursday last. He intends to write a series of articles for his journal on the States and Canada.

With the exception of a few late frosts, which have rather punished our fruit trees, the season here is marvellously promising; the grass crop will be immense and very early, and the grain is looking marvellously well.

**Fast Walking Contests.**

The leading agricultural societies of the country could not do a better thing for the horse-breeding interest of the United States than to offer large prizes for fast walking horses. Every experienced horseman knows that the walk is the most valuable of all gaits for a business horse, whether on the farm or on the road; and yet no other gait is so neglected. We have our masters in the trainer's art for trotting, pacing and running; we have our carefully-kept and often-published records of performances at these gaits; but the most practical, the most valuable of all—the walking gait—is ignored. The agricultural societies of our country can, if they choose, easily bring about a revolution in this respect, and we hope to see them move in it. Let walking matches be made a prominent feature at all the leading fairs this season. Let us have the records of all creditable performances kept and published as carefully as are the pacing, trotting and running records. Let liberal prizes be given for the fastest walking horse, mare or gelding, the gait to be a square walk—not a fox-trot—

and a few years will serve to bring about a wonderful improvement.

Who has not felt disgusted with the horse that will trot along at a good rate of speed, but when you come to a piece of road where the trot is out of the question, and the walk has to be resorted to, will only creep along at a snail's pace! A good walking horse will carry one along on the farm or on the road, even with a moderate load, at the rate of five miles an hour. The average horse will carry you at about one half that rate of speed! What a wonderful difference this makes in the amount of work that may be done in a day upon the farm!—[Breeder's Gazette.]

[We cordially commend the attention of the Directors of our Township shows to the above, and as their prize lists are not yet all made, give a good premium for walking matches. The object will be useful, and add to the attraction of the happy family gathering at these useful fairs. We hope that the judges at the several fairs will send to the ADVOCATE the record of the horses making the fastest walk for a full mile at each fair. The contests may properly be limited to double or single harness to four wheel.—ED.]

**Patent Washing Machines and Hay Lifters.**

Some time ago a man representing himself as A. L. Burk, agent for a patent washing machine, succeeded in swindling two Eramosa farmers out of \$282. He sold one of his so-called machines to them and received three joint notes of \$94 each, and was to forward the machine immediately. The notes are now due and the machine has not arrived. Burk tried to cash the notes in Guelph but did not succeed. He got them cashed, however, at Hay & Co.'s, Listowel, and as the notes are perfect in every respect the farmers will have to pay the shot. The Hay Lifter and Carrier Co., of Toronto, Ont., have been fleecing farmers in the county of Brant, and are now said to be near Newmarket. They give a farmer one machine free and agree to send him 10 machines freight paid. When sold to be paid for at the rate of \$20 each, otherwise to be returned. Two agreements purporting to be the same are signed, one of which, however, turns out to be a promissory note, is transferred to some bank or note shaver, and the farmer has to pay it.

Time and again the farmers have been warned against having any dealings with this sort of characters, unless they are perfectly satisfied that the parties represent some well known and reliable firm.

Our correspondents will do good service in exposing these swindlers, whether bitten or not, and in defending any suit to recover amounts illegally claimed.

There is a savings bank for the surplus dollars of farmers that will give a better interest than 3 per cent. It is INVESTMENT IN DRAIN TILE. Agriculturists who have tried it say that they can plant their corn earlier; it is not so liable to rot in the hill; drouth does much less injury; the crop is so far advanced before bugs and other insects appear that it resists their destructive ravages. The yield is twenty, forty, sometimes sixty per cent. greater.

Two correspondents of the Fruit Recorder report as follows on bagging grapes: "1. I sacked a few last season and they hung on vines until the 25th of October and were the largest and best flavored Concord grapes I ever tasted, and were the only grapes I had from 500 bearing vines, the rest all rotted. 2. Year before last I tied 40 or 50 bunches with pieces of newspaper; did splendid; one bunch overlooked till late, I found it and we decided it the sweetest we ever ate; was a Concord. This last season used small paper bags tied with twine where bunch joined the vine. Is quickly done; very little expense; grapes were crisp, sweet and melting."

**Portrait of the Late James Vick, of Rochester, N. Y.**

We insert the likeness of this enterprising gentleman, as we know of no individual on this continent who has done so much good in refining the tastes of the inhabitants of this country from actual practice and example. He induced the people to beautify their homes; he presented hundreds of thousands of packages of seeds annually to the public; he gave beautiful designs in his pamphlets, and the best information about their care and cultivation. He was well known to Canadians as a liberal, open-minded and honorable person. We have no hesitation in saying that he has done more towards inculcating fine, beautiful and honorable feeling among the millions of American families than all the millions of dollars that have been expended by the American Government annually for the encouragement of horticulture and agriculture, but more especially to benefit patrons or private individuals. He used to condemn in very strong terms the acts of the Government which tended rather to check than to encourage private enterprise.

**Glucose Meal.**

As we now have some glucose works in the Dominion it is well that our dairymen should know more of the deleterious effects of feeding it. The following on the subject demands your attention:

"On general principles most dairymen, if unbiassed by the desire for gain, would at once pronounce that an article which becomes so sour in a few days after leaving the factory as to taint the air and be smellable twenty or thirty rods away, must be an improper food for milch cows, and must affect their milk unfavorably. It is universally acknowledged that they should not be fed to cows, on account of the effect it has upon milk, and the same principle is even more imperative in the case of glucose meal. In the use of milk for the household, although no odor can be detected when cows have been fed upon the meal, the moment the milk is poured into coffee it assumes a stringy appearance and becomes an object of suspicion.

"We hear of one milkman who commenced using the meal without the knowledge of any of his customers. They at once began to complain, and threatened to leave him if there was not an improvement in the milk. He stopped the use of the meal and there was no more complaint. But its worst effects are seen in the cheese made from this milk. In the first place it takes about one-third more annatto to color the cheese, which at once shows the presence of an undue amount of acid. In the second place the milk has to be heated much higher than usual, and even then it is impossible to bring the curds to a proper consistency. They remain throughout soft and salvy, and will not cure down firm and solid. A Chicago dealer lately wrote to one of his consigners in regard to his cheese as follows:

"They have the appearance of being finely made, but on inserting the tryer the plug comes out porous and gritty; and on holding them any length of time they seem to rot and get bad. There is something in the milk, in my judgment, that causes these conditions. The cows are fed on something that is sweet, or foreign to their customary feed. The cheese seem precisely like those of a certain factory which I handled last year, which rotted down in thirty days, causing a loss to me after I had sold them. Some of my customers refused to pay at all. After investigation I found the cows had been fed on glucose (meal), which in-

variably produces this kind of cheese."

"This is only a single example of experience which has been repeated in various parts of the country. And it shows that the use of this article is one which is liable to cause serious loss to everybody connected with it. A condensed milk factory, located in a village only a few miles east of here, lost several thousand dollars last season because some of its patrons used glucose meal as food for their cows. The condensed milk prepared from it was sent back to the factory by those who had purchased it, as wholly unfit for any kind of use.

"With facts like these, concerning which there can be no sort of question, our dairymen must see that it would be the height of folly to commence, or, if already commenced, to persist in the use of sugar meal for the mere sake of a little increase in the yield of milk. In the end it will inevitably result in serious loss either to themselves or to the factory to which they send their milk. And if it is discovered that certain patrons are feeding the meal, the factoryman himself should take the matter in hand, and insist that the practice be done away with. It is an injustice not only to himself

exhibition in a well understood order of rotation, immediately following the Provincial, and that owing to the large number of these exhibitions now held, it is highly desirable, in their interests, that the Provincial should be held as early in the season as circumstances will permit. Moreover, your committee understand that the managers of the London and other similar Associations, after kindly awaiting your selection of the date for your exhibition, have or are about announcing their exhibitions for the following or last week of September, and the County and Township Societies have their exhibitions for the first and second weeks of October, and also that the curtailment of the current year's Provincial Exhibition to one week, and the selection of the third week in September, have given very great satisfaction throughout the Province; inasmuch as it will enable the District and Local Associations to complete their series of exhibitions before the last days of October without unduly interfering with one another, or with the Provincial, and your Committee venture to think that it is the duty of the Council of the Agricultural and Arts Association to consult the interests which they represent rather than those of the Toronto Industrial Association.

Your Committee have also to observe that the Council in selecting the week they have done, have only selected the first of the two which their exhibition has covered during the last two years, and that during the last ten years no less than five of their exhibitions have been held during the third full week in September. It is also to be remembered that the Toronto Industrial Exhibition Association fixed the time for their current year's exhibition before your Council had decided that this year's exhibition should be limited to one week, and that in making their selection they selected the second and third weeks of September instead of the first and second weeks which they have always occupied, and to which their exhibition has been limited during the last two years, and that in pursuing this course it was the Toronto Industrial Exhibition which changed the date of their exhibition, not the Council of the Agriculture and Arts Association that of theirs.

While your Committee deeply regret the occurrence of anything calculated to interfere with that harmony which should prevail between the Directors of the Toronto Association and those of the Provincial, yet they feel that they would be lacking in a proper appreciation of the duty which they owe to their constituents were they to consent to change the date fixed for the current year's exhibition in the interests of Toronto and to the manifest injury and inconvenience of all the other exhibitions to be held throughout the Province. The report was adopted.

[The above communication would have been inserted at an earlier date, but from press of matter and a change in this office. It is published at the request of the Board.]

The steamship Brooklyn City, which sailed for London, took five horses destined for that city. They were shipped by James Griffiths, of St. John, who thus becomes the pioneer in this business, in New Brunswick. One of the horses is the black gelding Rowdy Boy, with a record of 2.13½ (made in Rochester, N. Y., 14th, 1.79). The chestnut mare - Jenny, 9 years old (formerly owned by John Fitzpatrick) with a record of 2.41½, sired by Robt. R. Morris, is well known here; ch. mare Lady Garfield, 4 years old, with the same sire, which was bought at the recent sale of A. L. Peters, and is a good mate for Jenny. The bay colt, 16½ hands high, 4 years old, sired by Monarch, and will be a good carriage horse. The fifth is a brown mare, 5 years old, can show a good '50 clip. She is a French bred mare and was brought from the North Shore.



THE LATE JAS. VICK, OF ROCHESTER, N. Y.

but to the patrons of his factory. Cheese this year are sold upon their merits, and not upon the reputation of the establishment where they are made. Under this system, stock which is made out of glucose milk will very soon tell its own secret and ruin the name of the factory which sends it forth."—[Herald, Utica, N. Y.]

**Transactions of the Board of Agriculture and Arts.**

**DATE OF EXHIBITION.**

Mr. Carnegie presented the following report of the special committee on the letter of the Hon. S. C. Wood, Commissioner of Agriculture:

The Committee to whom was referred the communication of the Hon. S. C. Wood, Commissioner of Agriculture, beg leave to report that after a careful review of all the circumstances, they cannot recommend any alteration in the date fixed for the holding of the current year's exhibition.

In arriving at this conclusion your Committee would remind the Board that in many districts of the Province it has become the practice of the various districts and Local Associations to hold their

### On the Wing.

In May we took a trip to Sarnia; thence by street car to Point Edward. A dirty car, broken windows and a miserable road; fare to strangers, 10c. each way; to residents, 2c., and less than that when they get one dollar's worth of tickets. A walk of about one mile took us to the so-called quarantine grounds. The location appeared a good one for a quarantine, the River St. Clair a few rods from one side, a lake on the other, and a long, narrow strip of poor, sandy, starvation ground, of little value for any other purpose, and the G.T.R. but a short distance from it. A large building had been erected for picnicking, but the purpose for which it was erected proved a failure, that was to make money. It had been getting into a dilapidated condition, and was now re-boarded, fitted up with stalls for cattle, and three open board partition yards had been fenced off to turn the cattle in for exercise. There were thirty head of cattle in this building, some of which were brought from the infected districts of the United States, we mean, from parts where Pleuro-pneumonia was known to exist; at least we were informed of this fact.

Among the animals in this so-called quarantine we were pointed out one animal that was said to be in the last stages of Tuberculosis. The animal to all appearance looked a very dangerous subject, staring coat, yellow, dry nose, sunken, glazed eye with red around it, mucous on nose, drawn up in body, and labored breathing and weakness. She was giving suck to a calf.

Canadian veterinaries may for certain pay be induced to shield this disease and even give it a light name, and unprincipled people in authority may state that our information is incorrect. This they have done on three previous occasions, namely, when we gave notice of the Foot and Mouth Disease, the Hog Cholera, and the Measles or Trichinosis in hogs, all of which we have imported from the States. Those whose duty it is to look after such are undoubtedly culpable for suppressing truth, and in fact paying our Government money to encourage falsehood.

Now this last importation of infectious or contagious disease, namely, Tuberculosis, is, from the best European authority, shown to be imparted from parent to offspring; in fact it may be in-bred. It may also be imparted to animals or even to men by partaking of the milk from a cow infected with the disease. It may also be imparted by the excrement of a diseased animal, or the mucous or gleet that is discharged from the animal may become dry and may be taken into another animal even in the dried state, and the disease may be propagated. The milk from cows suffering from this disease is about the best poison known to give to young children where baby farming is practiced. The law does not hang a person feeding a child cow's milk. The great question that arises is this:

#### SHALL WE HAVE CONTAGIOUS DISEASES SPREAD IN CANADA?

If not, we must at once take proper steps to prevent it. This thirty head of cattle that are at the Point Edward quarantine are all liable to take this disease, and it may make its appearance at any time. There was nothing to prevent these animals rubbing noses with this cow and her calf. They might take it from the straw or hay from her yard or stable; they might take it from her calf. The cattle about Sarnia might take it; there was nothing to prevent them from going up to the single board fence where this cow was. In fact, all these cattle were driven over the commons to the quarantine grounds, and on these commons the Sarnia cattle run at large. No doubt the Govern-

ment are making great changes and expending a lot of money to make it appear safe now, but they cannot deny the fact that these animals have all been exposed to the danger, and any one of them might take it into a herd. Whenever fairly rooted in Canada, who can possibly estimate the loss? For our part, we would not take one animal or the whole of the animals in the quarantine as a present and bring them into this county; in fact we believe it will be dangerous to have one of them taken into a herd. We hope none will ever be allowed to come out of this quarantine alive. In fact, it is our opinion that the best thing to do with the cattle is to kill them and burn the buildings and everything around them. They are not for the benefit of Canadian farmers. We have lots of far better cattle and have no need of one animal there. In fact, speculators are turning Canada into a hospital for stock from the States. Farmers, is this right? Do you want any cattle from infected districts?

### Accommodation at Exhibitions.

This is one part of the programme of large gatherings that is generally too little regarded by those whose sole object is to assemble a crowd and collect entrance or other fees. We believe the inhabitants of Kingston are using every means to prevent such a complaint being raised against them, even some of the most popular hotel-keepers, instead of striving for a grab game that is too often played. The proprietor of the Windsor Hotel, which is the principal commercial house in Kingston, will engage to keep accommodation at \$1.50 per day for the Exhibition week, if parties apply early. Also, R. Beaupre, proprietor of one of the most popular farmers' hotels in Kingston, will make pre-arrangements. Some of the hotel-keepers in other cities have refused to do this, rather depending on what they can make at the time of a rush. It is a good plan to know where a person can obtain accommodation beforehand when a rush is expected, and Kingston will have it this year. The beautiful lakes and islands in this vicinity are well worth a trip to see and enjoy. By making previous arrangements you can then take your wife or daughter for a holiday. After seeing the exhibition, give them a pleasure trip to the Thousand Islands. They richly deserve a holiday, and many of you can well afford to give the ladies a pleasure trip. A beautiful trip would be from Kingston by boat to Prescott, from Prescott to Ottawa by rail, then by boat through the Rideau lakes and canal to Kingston. Try it, and you will have no occasion to regret it. Mary, Jane and Eliza, show this to papa, and make your own remarks. We have been there—have taken wife and daughter, also; therefore we speak from experience, and say, go!

### July in the Country.

While all classes participate in the pleasures of Canadian summer and autumn, it is only in the country, with its ripening harvests and its early fruits, that their pleasures are fully realized. This season we have in Ontario a more than usual abundant harvest. There are, it is true, some inferior crops, but they are exceptions to the general rule, and are the result of work badly done. We have good reports from every part of the compass in this Canada of ours, and they are all favorable. Wheat, oats and barley give good promise; meadows are heavy. Potatoes have not for many years promised so well in the last days of June as they do now. In some of the United States there are heavy crops of wheat, in others there is much croaking. Winter wheat, they say, will probably make half a full crop; spring wheat and oats were

late in being sown, and continued wet weather has prevented proper growth. The worst feature, however, is that continued rains have prevented the planting, or when planted, the cultivation of corn.

From England we regret to learn that the prospects are not favorable. The latest report that we have received is as follows:

London, June 25.—The cold, showery weather is seriously affecting the prospects of the grain crops, barley especially. The outlook up to the end of May was exceedingly promising, but another defective yield is now inevitable, unless there is an immediate favorable change in the weather, while at the best there can be now scarcely an average crop of cereals. There are reports of early inroads of disease on potatoes, and dry weather is much wanted to check its progress.

#### TURNIPS, MANGELS AND BEETS.

The season on the whole has been favorable for the roots. There have not been the usual complaints of the seeds failing to germinate from long continued drought. There may, however, be some partial failures, or the fly may have laid waste a portion of your turnip field; whatever may have been the cause of the failure a remedy must be applied. It will not do to allow land that has been well tilled and manured to lie waste. Transplanting turnips is seldom of much use in Canada, our climate has not the requisite moisture; stir up the waste places if there be any and sow again; a late crop sometimes does well, and for a few days it will not be too late even for Swedes. We know some farmers who defer sowing their main crop till the first days of July. If it be late to sow Swedes, sow Yellow Aberdeen, a very good variety for early feeding, though for keeping inferior to the Swede. Dale's Hybrid we have found a good late turnip. Later still you may sow Red Norfolk and White Globe, both good croppers. Besides late turnips you can fill up the vacant ranks with cabbage, if you can procure the plants.

Mangels bear transplanting better than turnips. Any blank parts in this crop can be filled up with plants taken from places that have some to spare. Some sow plots with mangels for the purpose of transplanting them.

Beets as well as mangels may be transplanted and produce a heavy yield, if not quite so heavy as they would be in their seed bed; the roots are said to be more solid and nutritious than if not transplanted.

There is no month of the twelve that demands more increasing labor and unremitting care from the farmer than July. His grain and meadows are not the only crops he has to attend to; hoeing and cultivating are to be attended to, weeds are to be extirpated, and though last not least, continual war must be carried on against those famous foes, the insect pests. Fruit and shade trees, grasses and clover, roots and vegetables, must be guarded from the attacks of bugs and beetles, weevils and worms. The early part of the season was cooler and moister than is usual here, and the natural result has been a mitigation of the plagues of noxious insects till lately.

Jarring the trees so as to cast down the caterpillars, &c., will do good service.

Within a few days we have been reminded to call upon our druggist for Paris Green. Many means are recommended for exterminating the bug, but no substitute is equally available; London Purple has been advocated as cheap and effectual, but we have the best authority for saying that though but one-fourth the price of Paris Green, it is not the least fraction more economical. One pound of the green will do as much execution as four pounds of the purple. Either mix the green with gypsum or dilute it with water for use.

Live stock should be well supplied with green fodder; the pasturage is not sufficient in our usual scorching dog-days. See to it that there is no lack of water.

**Political Agriculture.**

The following letter from one of the most intelligent, best known and esteemed agriculturists in the United States will be read with interest by many of us, in view of many glaring instances of the most extravagant waste of public money lately made under the cry and wing "for the good of agriculture."

SIR.—A newspaper slip gives a list of appropriations already made for the Agricultural Department at Washington, amounting to \$192,000, and informs us that the House Committee on Agriculture have just completed a bill, \$106,100 less than was asked for by the commissioner, but amounting to \$396,280. These two aggregates give \$588,880 as the year's expenses, besides cost of printing the volume of Annual Reports. So I understand the matter; if I have made any error, I am ready to be corrected. What is to be done with this money? Before asking this question it might be better to ask, what good has this Department ever done the agricultural interests of the country in the many years it has been spending large sums of money? Let him who can answer this question not in "glittering generalities," but giving particulars. If the reports sent out to the public of the prospects of growing crops be stated as of benefit to anybody, let the name of one, at least, of the great dealers in grain be given who has ever bought or sold one bushel on the faith of the accuracy of these reports. "Let the side-walk farmers" who wish to turn the Commissioner of Agriculture into a Cabinet officer, tell us of the good done by any of the long line of men who have tried to make something of this Department that would benefit agriculture, before their advice is followed.

Certainly the annual volumes issued by the hundred thousand from this Department do not redound to its credit. It would be hard to find a complete set in any library, except perhaps some one sustained at public expense. Any private citizen who has room on book shelves for a set of these reports, would be found to be a man fond of strange things. Compare these reports with the "Transactions of the New York State Agriculture Society." Complete sets of these volumes will be found in farmers' houses carefully kept and often referred to. Some years since the Secretary of the New York Wool Growers' Association was in the receipt officially of many copies of the reports of the Reports of the National Department of Agriculture, and was unable to give them away to suitable persons, and they remained in the way until a paper-rag buyer came along one day during the absence of the official-keeper of these reports, and bought them by the pound. I tried in vain some years since to have these books put on sale at the book-stores, at very low prices, to test the estimate the farmers put upon them. We have many ably conducted agricultural newspapers—any one of them of much more value than the average of these volumes, which there is no real demand for, except by Members of Congress, to use as compliments to that great body of their constituents who read but little, and buy books only when strongly solicited by pedlers.

What is to be done with this \$588,880 which Congress gives the Department for next year's use, and which is \$106,100 less than is asked for? Eighty thousand dollars is "for the purchase, propagation and distribution of seeds." Some days since I received, as did many of my neighbors, a package of seeds from this Department, and soon came a printed official card informing us of the object the Department had in view. I quote from the card: "The object of this distribution is the promotion of the interests of agriculture by introducing into the various sections of the country such new and valuable products as may be adapted to the soil and climate of each." "New and valuable" seeds are desirable, and may be worth testing and reporting upon, as required in the card, to the Department. I took a package of these seeds, seven varieties, put up nicely in small papers, to a leading seed-store in Syracuse, and found that six of these varieties of seeds were there and then on sale, and the seventh, Kankakee watermelon, had an unknown name. It may be a "new and valuable" variety, but more likely is one of the half-score of well-known fully-tested varieties on sale, under another name. Assuming this Department watermelon to be of the average value of those on sale, the whole seven papers of seeds were worth at retail just 25 cents. Can the Commissioner believe that he is promoting the interests of agriculture by sending out these seeds, giving them away to the manifest injury of the regular dealers in garden seeds? Fifty thousand dollars a year in little

bribes of a quarter of a dollar each to make this Department popular! "New and valuable" products, six-sevenths, certainly, on sale in every great seed store.

GEORGE GEDDIS,  
Fairmount, N. Y., May 12, 1882.  
—[N. Y. Tribune.

We have heard that a certain Canadian seedsman, who has been a strong politician and a recipient of many Government favors, actually disposed of a large lot of common Canadian wheat, giving it a new name, to the United States Government for an enormous sum, there to be distributed and sold for fabulous prices. We deem it but proper to insert the following letter, being only one of numbers of similar letters received. We are strongly impressed with the idea that our moneys that are supposed to be expended for the encouragement and advancement of agriculture are too often used for party purposes, and instead of tending to the benefit of farmers are used to their injury, both pecuniarily and morally:—

SIR,—I would like to write you about the reports of the Agricultural Commission, issued by the Legislature of Ontario. They seem to have been got up for special purposes, if I may be allowed to judge from circumstances which have transpired around here. I was the only one in this neighborhood that applied for copies, and was promised a set but only received one volume. There are only three volumes in the hands of all the Tories in Yonge, but plenty in the hands of Grits; one boarding-house keeper has a whole set. I wrote to purchase a set, but they were exhausted.

(J. L. L., Caintown P. O., Leeds Co., Ont.

**Food for Heifer Calves.**

"What is the best food to develop a heifer calf into a milch cow?" In growing heifer calves for the dairy, the important thing to accomplish is to grow the frame and muscular system, without laying on much fat. It is a rangy, well-developed animal, with a vigorous digestion that is wanted in the milch cow. The profitable milch cow must be a large eater, and make the best use of her food, in order to produce a large yield of milk. In rearing the heifer, then, she should be so fed as to give her a full development of all the vital organs, and this will necessarily bring her digestive organs into special activity.

Fat in the animal body seems only designed to serve as a cushion to the tendons and joints, to fill up and round out depressions, and, lastly, as a reserve of fuel to keep up animal heat in case of necessity. It is not the seat of any sensation, has little or nothing to do with the vital processes, and generally is merely inert ballast in the body. The food given, then, should not be designed to lay on fat—food containing an excessive amount of starch or oil should be avoided in feeding heifer calves designed for the dairy—but food rich in albuminoids and the mineral constituents of the body is what should be sought.

For the first three to six months, skim-milk is one of the best of all foods for heifer calves. This is rich in casein and albumen, to grow the muscles and nervous tissues, and also in phosphate of lime for the bones, and in other mineral constituents of the animal body. It is better than whole milk for this purpose, for that contains too much fat to give a full development to the muscles and bones. When the calf is very young, the oil in new milk is very serviceable in keeping up a high degree of animal heat, and also to furnish a little needed fat to the lean body of the new born calf. And for this reason it is well to add a little boiled flaxseed to skim-milk a tablespoonful of flaxseed jelly for a young calf, and increase it very gradually as it gets older. The flaxseed will prevent constipation from the skim-milk. After two months old, if milk is not plenty, that may be reduced, and ground oats and bran substituted in its stead. New process linseed meal is also excellent for a heifer calf—say, one-fourth of a pound at two months old, increased to half a pound at four months old. A little early-cut clover should be laid by for winter feeding of calves. Heifer calves should have free exercise in pasture to assist in developing a healthy, robust constitution.

After the above observations, it may be considered needless for us to add, that heifers designed for the dairy should be full fed from the beginning. It is only by full exercise of the digestive functions that a large digestive capacity becomes established. The full development of the heifer, then, means the fixing of her most valuable character as a milch cow. If the heifer applies the food too largely to

lay on fat, then her destiny should be changed to the beef market.

**Knowledge Makes Farming Practicable and Profitable.**

There can be no doubt that a great majority of farmers limit their range of vision injuriously by steady application of labor during what is called the busy season, which is in fact the greater portion of the year. They work with insufficient knowledge because they do not estimate at its true value instruction derived from observation beyond the narrow limits of their own fields. The demands upon their powers are exhaustive, and there is wearisome response until thought flags, thenceforth solid labor without the refreshing influence of intelligence in direction. It is the tendency to this course that makes farm life seem dull plodding, as in too many cases it really is. Of course the tasks of the farm are tasks to be executed. Farming is a business that yields no profit, without labor, but it does not follow that profit bears steady and direct relations to labor, according to its extent. There must be intelligence to direct effort or the result will be very uncertain. Broader information, wider scope of knowledge, extended acquaintance with methods and capabilities are the fitting for successful effort. In this view it is quite necessary that every farmer should know what his neighbors do, how they manage their fields, what new and instructive lessons are recorded in their practices. And no farmer can expect to develop all this by trial restricted to his own powers, nor is there need that he should attempt the task by a method so hopeless. He can avail of whatever wisdom his neighbors have if he will observe. Let him go among them seeking aid. There is none so poor in intelligence that he may not instruct the wisest, for the farmer of the smallest attainments is sure to have in the wide range of his labor, some suggestion of gain worthy of use by his most intelligent neighbor. There is profit, therefore, in extended observation. Abundant opportunities of time are available to the farmer who would make diligent quest for knowledge, and the fields of his neighbors are always open for the gleaning. We learn by seeing, and in some branches of knowledge the most rapid progress can be made only in this way. This is true of farming, within certain limits. Then let farmers who seek progress make special efforts to spy out the useful lessons spread to their view in all the fields of their neighbors. The effort is cheap, easily made and very sure in its reward. Let it be repeated as often as interest impels, in summer and in winter, in spring and in autumn, for it never can be out of season. It is not prying impertinence, on the contrary, it is gratifying to every good farmer to impart knowledge, and especially so, when the worthy object may be accomplished by the exhibition of success visibly marked in the excellence of his methods.—[Husbandman.

In most pastures undesirable vegetation is liable to spring up and occupy considerable of the ground. If it is eaten by milch cows it generally imparts a foul flavor to the milk they give. In the majority of cases, however, it is not eaten by any kind of stock except sheep are kept on the land and feed is very short. It takes nutriment from the soil and makes a very poor return for it. It matures seed and scatters it in all directions. Most pastures should be mown after the grass in the fields is secured, in order to prevent the seeds of weeds from maturing, and in order to check the growth of undesirable plants that do not mature seed. It is also well to cut all tall and rank grasses. The stalks are not eaten by stock, and the seed they produce is of little value. By cutting the stalks the foliage near the ground will become thicker and furnish food for stock. A pasture which is mown in July or August will furnish more and better food during September and October than one that receives no attention. After a pasture is mown it is best to adopt means to improve its condition in other respects. It is a good time to give the least productive portions of it a top dressing of fine barnyard manure, salt or ashes. If there are clumps of bushes they should be removed. Large weeds like burdock, mullen, and the double thistle can be eradicated by cutting off the roots several inches below the surface of the ground with a spade. If the weeds contain seeds that are ripe, or which will ripen after the stalks are cut, they should be thrown in heaps and burned.—[Prairie Farmer.

## Garden and Orchard.

### Mistakes in Floriculture.

One of the greatest mistakes in floriculture is trying to grow fifty or a hundred plants where there is not room to properly accommodate twenty-five.

This error is not confined to amateurs, for there is a tendency even among the more experienced to crowd their flower-stands until it is almost impossible to distinguish an individual plant from the mass of verdure.

The result of such close packing may be told in a few words:—They become sickly, long-drawn, irregular-shaped things, that so lose their identity one is puzzled to class them; they seem a cross between a shrub and a vine.

When growing plants at the window the great desideratum should be quality not quantity; we want none but well grown specimens, such as will do honor to their species, and reflect a little credit upon the cultivator; but to have them one must give them elbow room, a sufficient amount of light, air and sunshine; but it is impossible to do this when plants are so closely huddled together. If we cannot spare but one window for plants, fifteen or twenty will give us more real pleasure than fifty could possibly do under the circumstances, because we could give to the few what they require to bring out their finest points, and make them indeed a delight to the beholder. It is just as easy to have plants that are vigorous and healthy, compact and symmetrical, as it is to grow those ill-shaped, spectre-like things, too often seen upon the flower-stand. If your geraniums or fuchsias are growing too slender pinch off the top, and when the branches have grown the length you desire, and you want the plant to have a bushy, spreading top, pinch these back also; if a shoot appears out of order remove it at once; keep off all dead leaves, and turn them often to the light, and above all keep them clean—a good showering once a week will work wonders, particularly when plants are grown in living rooms.

Another mistake in window gardening is having too many duplicates in color; a collection of plants all bearing scarlet flowers does not have a pretty effect; if there are scarlet or pink flowers do not range them side by side, the colors do not harmonize nor form a good contrast; place a white one between, and remember that white flowers will relieve any color; if there are yellow or orange, give them blue or purple for their nearest neighbor. Just a little thought on the subject will enable one to arrange their flowers harmoniously, for as much is due to the arrangement of color to produce a fine effect, as to color itself.

### How we Grow Strawberries.

First select a suitable soil; a rich loam, sandy, or if clay, well drained and trenched to the depth of twelve inches. The plant requires a rich soil, and mellow as deep as the root will extend. The draining and subsoiling, with forking in well composted manure will supply the plant food required, and enable the tender rootlets to absorb the dissolved nourishment. For spring planting, deep fall plowing would be a good preparative. We have been very successful in autumn planting, and as early as July and August, on land from which we had taken a root crop. The soil was dry, mellow, and otherwise in good condition.

One great advantage in spring planting is the fall plowing; by this the grubs that sometimes prove so destructive to the plants are disturbed in their winter quarters, and many of them perish. Fall fallowing for a previous root crop accomplishes this object; the crop must be preceded by thorough draining, if the soil be at all liable to retain lying water. For strawberries, even more than the root crop, a dry soil is necessary; it admits free access of air and heat, and favors moisture and extension of the roots.

#### TRANSPLANTING.

Having made the ground mellow and friable, set in a line in rows thirty inches apart, the plants from fifteen to eighteen inches apart in the rows. Take up the plants from the nursery beds with a ball of earth, and place them in a pail of water; from that transfer them to the holes made for them with the hoe or with the hand. Firm each plant, pressing the earth gently with the foot. If the earth afterwards becomes hard and baked hoe it lightly. The mellow soil attracts moisture from the atmosphere, and also brings it up from beneath.

#### WINTER PROTECTION.

The strawberry may be fairly designated a semi-hardy plant, being indigenous to our country, and living and bearing fruit in most exposed situations, but it has been rendered more tender by the fostering care of the gardener, so that the improved varieties need protection from the drying winds, the intense cold, and the many changes of temperature. The snow is the natural winter protection of plants in our northern climate, but if there be a heavy fall of snow and if it lie long on the ground strawberry plants may be smothered. They are sometimes covered with litter, but we have in preference used the fallen leaves from the woods; they are light, they are free from weed seeds, they are good protection from cold and are a good fertilizer when dug in between the rows in spring. Evergreen branches, where they can be procured, are excellent protection.

### Why so few Chrysanthemums?

The Chrysanthemum is a plant that has every element of popularity, and we have often wondered at the comparative neglect of it. There are a few old sorts, a lilac, a yellow and a white, that are to be found in the old country gardens, that have undergone neighborly division for many years. Some of the new kinds are so beautiful, and they all come into bloom in the garden at a time when there is very little else, and are so bright in the dull days of autumn, that we should be glad to see more of them. Chrysanthemums, as a general thing, with us, are treated like other hardy plants; put out and left to take care of themselves, until the clumps get too large, when they are divided and reset. They will abundantly repay a little care. Instead of allowing the roots to throw up a small thicket of stems, remove all but four or six, and as these get large, give them stakes to prevent the autumn storms from breaking them down when loaded with flowers. The Chrysanthemums are admirable for window blooming. If for flowering in-doors, the plant, as soon as buds are formed, should be potted; they will soon recover if placed in the shade for a few days; the pots may then be plunged in the soil, or placed in a frame and surrounded by coal-ashes. When cool weather comes they are to be taken up, cleaned, and taken in-doors, giving them abundant air on mild days. Whether in pots or in the open ground they are apt to be infested by a plant-louse, which should be treated with tobacco water; a woolly caterpillar is sometimes destructive; this is not numerous and may be hand-picked. The plant is one that yields readily to training, and by pinching in its early growth may be formed into neat compact bushes. After the potted Chrysanthemums are through flowering, the stems are to be cut down and the pots containing the roots placed in the cellar until spring.—[Ex.]

### A Well Kept Lawn.

We have already suggested that the use of the lawn mower should not be governed by any rule, such as "mow once a week," but by the condition of the grass. In mid-summer more injury may result from mowing too frequently than from cutting too seldom. We would now call attention to the weeds in the lawn. Weeds here, as elsewhere, are annual and perennial, and they may be undesirable grasses or other kind of plants. Take the perennial weeds, for example; these come from seeds brought on in manure or taken there otherwise. These are cut back each time the mower is used, and are hardly, if at all, noticed in the spring months. In mid-summer, when we mow less frequently, to give the grass a chance, these weeds which we have been unintentionally pruning in the early months, are quite ready to assert themselves. Plantains, Docks, Thistles, and others not before noticed, will in the short rest we give to the grass, make themselves conspicuous. The best treatment for such perennial weeds, even on a large lawn, is hand weeding. A long knife or a chisel-shaped "spud" thrust well down to cut the root, will allow the plant to be pulled up without disturbing the grass. In England they have a contrivance for killing such plants, which places a few drops of oil of vitriol (sulphuric acid) on the centre of each. We have not had occasion to try this, but those who make the experiment should keep in mind the destructive effect of the acid upon clothing, and the fact that it should not come in contact with the fingers, etc. Annual weeds as a general thing are of but little consequence after the first year, as the frequent mowing subdues them.—[Am. Agriculturist.]

### Preparing for Winter Flowers.

Those who have small green-houses or cultivated flowers in their windows, have set out their geraniums, and other quick-growing plants for the summer. Many make the mistake of taking up these plants in autumn, after they have grown all the season in the open ground, and potting them to be replaced in the window or green-house. The result will always be "long legged," misshapen plants, which, instead of blooming satisfactorily during the winter, will take a long time to recover, and never be worth as much as new plants from cuttings. Such plants may be prepared for, this month and next, and with very little trouble. Of course those who have green-houses with appliances for propagating need no directions, but many lovers of flowers have to content themselves with such plants as may be grown in the windows of the living rooms. These become attached to their plants, and when one is set out in the bed they expect it back again. When such a plant goes out consider it thrown away, for it may as well be, and set about replacing it. The following method will give a few plants with little trouble. Take a common store box, such as a starch or soap box, knock off both cover and bottom, and if need be strengthen it with extra nails. Tack over this a piece of cotton cloth and the frame will be ready. Select a place where the soil is light and sandy, or if the ground is all stiff, spade in some sand or coal dust to make it light and open, and place the frame over it. If cuttings of geraniums, cupheas, verbenas, or other such plants are placed in the soil and covered with the frame they will soon take root and form nice specimens, which, when they begin to grow, may be potted and be ready for winter.—Am. Agriculturist.

## Veterinary.

#### COLT WITH BRITTLE FEET.

I have a strong four-year-old colt, out of a work mare, the sire being nearly three parts bred, under my superintendence. The feet of the colt are so brittle that the smith cannot put on shoes without breaking the hoofs. The fore feet in particular seem as if they were encased in a very hard substance, which causes the shoes to come off frequently on the road. I have applied tar frequently, but to little or no purpose. How would you treat it?

[The brittleness of the hoof clearly points to a defective action of the parts of which the hoof is formed. It would, therefore, be advisable to apply a stimulant in the form of a cantharidine blister to the coronets of both fore feet, which should be repeated after a month's interval, at the same time giving the horse a month or two's rest on the soft, wet grass, which greatly assists the action of the blister.]

#### CLYDESDALE COLTS WITH ITCHY LEGS.

Several young Clydesdale colts and fillies, coming 2 and 3 years old, are suffering more or less from the above cause. They are regularly fed with boiled oats in the morning, go out a little in the day, have supper, composed of light grain and turnips boiled, and the best of hay or straw, as much as they can eat. Their legs and heels are often washed with soap and warm water, and sometimes with a little of McDougall's sheep dip, and still they are itching. They lie on clean straw every night. Is the feeding or keep wrong?

[Some Clydesdale horses, unfortunately, inherit coarse legs, rough hair, and tendency to rezema and itching, and as years advance exhibit more distinct developments of grease. It is difficult to keep subjects with that inborn tendency clean in the limbs. A little over-feeding, a few days' confinement (residence in a foul stable or yard), will bring out the unpleasant inheritance, and set the animals rubbing their irritable legs. The washing of the limbs is useful, the feeding appears sensible, the daily run out in the yards is advantageous. The chief suggestions to be made are a few pieces of rock salt in the manger, an ounce of nitre given with the wash once a week, a daily pound of linseed cake for each colt, and if the itching continues mix with the bran, or other mash, a pint of linseed, in order to gently open the bowels. If these measures should fail, you should consult with a good veterinarian, if one be near at hand, who may be able to discover some special cause of irritation, and suggest the appropriate treatment. Some troublesome cases are not cured without carefully regulated doses of salines and arsenic.]

### The Dairy.

#### Prize Essay on the Management of the Dairy.

BY MRS. J. L. SMITH, WHITBY.

This subject is one which ought to be the study of every farmer's wife and daughter, and certainly must be of great interest to the farmers themselves. A well managed dairy, even though it may not be large, not only adds greatly to the comfort of the household, but also contributes in no small degree to the yearly profits of the farm.

A mistake, I think, is sometimes made by farmers in having a larger dairy than can be well attended to by those who have that department in charge, and also in keeping more milk cows than can be well pastured in summer or well fed during the winter. A small, well managed dairy, of say from three to five cows, well kept all the year round, will be far less of a burden on the mind of the tired housewife, who is generally pressed with a multitude of other cares and who has very little or perhaps very inefficient help, than one of nearly twice the latter number of poorly kept animals, and I think that the financial returns of the former would compare very favorably with the latter. In speaking of this matter it has not been so much from experience as from the comparing of notes and from observation.

My experience has been altogether with a small dairy on a small farm (eighty-five acres), where it is not made the business of the farm, but is, as is usually the case, only a branch. I have had for the most part the management of a dairy of four cows, but for the last few years they have been reduced to three. The conveniences that I have to work with are just such as can be found in any ordinary farm house. I have devoted my attention more particularly to the making of butter, although for the first four or five years after becoming a farmer's wife I made cheese with some amount of success, having had very satisfactory results as to profits.

In making cheese, when the weather was sufficiently cool, I would keep the curd made say on Monday morning until Tuesday, when I would mix the two together in order to have a larger cheese. I never made a curd in the evening, but always in the morning. The morning's milk was strained into a large tin vessel and placed over a fire in a kettle of water, and there allowed to remain until it was sufficiently warm to allow of being mixed with the cold milk of the previous evening. The two were then mixed together in a large tub and the rennet added. As a rule, I think, I would prefer smaller cheeses made from one making of curd.

However, I do not intend to say much about cheese making, since owing chiefly to the establishment in our own neighborhood of a number of cheese factories, I gave it up some years ago and turned my attention altogether to the making of butter.

My plan is, if possible, to have very little or no churning in winter. I have several reasons for this, which it is not necessary to mention here. I think that a good time to have fresh milk cows is about March or April. I always make a practice of selling my butter as soon as it is made until the beginning of June, when I commence to pack for my own use in winter as well as for sale in winter. I pack nearly all my summer butter, and I find no difficulty in keeping it.

A want of cleanliness and pure air is one of the chief sources of poor butter. In a great many cases this lack of cleanliness is not so much owing to carelessness or over-work, as to a lack of knowledge and thought.

To begin with, the milking must be done in the cleanest possible way, having the cow's teats and udder rubbed free of all dust and loose hairs. My milking pails are kept exclusively for that purpose, and are always first well rinsed in cold water, then washed and afterwards scalded with boiling water after each time milking. The milk pans are treated in a similar way, and I never allow them to be used about the cooking or have vegetables washed in them, etc., but only for milk. Great care is taken to scrape out with a bit of stick the seams of the pans and pails where the germs of sour milk or other sediment is likely to lodge. Especially during the hot weather I am particular to have the water which scalds the dairy utensils positively boiling. Water that is merely hot does not answer the purpose; nothing short of boiling heat will effectually destroy the germs of decomposition. I have the same rule regarding the washing and scalding of the cream and butter crocks and the churn. The dairy utensils are not washed with the same cloth as the dishes from the table or the greasy tins and kettles used in cooking, but a dish cloth is kept especially for them. I keep enough milk tins on hand to always have a set ready for the coming milking, and after they have been well aired they are set away in a cool airy cellar to be ready for use. As regards the scouring of milk tins I have tried various plans. I used salt for scouring for some years, but lately I have not used it so much, as I think that it has somewhat of a corrosive tendency. Tins scoured with salt require extra care in washing and scalding afterwards in order to remove anything of a saline nature from the sides and bottom. Last year I scoured with finely sifted coal ashes, and liked it well.

Care in airing the cellar or milk-room contributes in no small degree to the making of good butter. A close musty cellar is almost sure to impart an unpleasant taste to cream and butter. Cellars do sometimes acquire this musty smell from being shut up too closely during the winter, and from the remains of decaying vegetables. When this is the case the windows and outside door (if there is one) should be opened, the floor, walls and shelves well swept and cleaned, and then to complete the work the whole should have a thorough fumigating with sulphur. The milk should be removed during the process.

I never set milk in the same department of the cellar that contains apples and vegetables, but in a separate room. In summer the windows of the cellar are closed during the day and opened in the evening to let in the cool dry air. Through the heat of the day any windows that are exposed to the sun are shaded.

The milk is strained into tins to the depth of four or five inches, and is generally allowed to stand thirty-six hours before the cream is removed. The milk is skimmed while it is still sweet, and sometimes, when the weather is cool, I let it stand forty-eight hours. The cream crock is kept on the floor of the cellar, in the coolest place that can be found, and is always well covered.

With a small number of cows, if proper care is taken for the preservation of the milk and cream, I do not think it is necessary to churn more than once or twice a week. In summer the churning is done in the cellar, and as early in the morning as possible. After the butter is taken from the churn it is well washed in good cold water to remove the buttermilk. The water is then drained from it and the salt sprinkled evenly over the butter at the rate of one or one and one-fourth ounces per pound. When the butter is to be packed I usually salt at the latter rate. I find that this is sufficient to keep it the year round, and appears to suit the taste of most buyers.

The butter is not worked, that is, it is not rubbed and beaten back and forward with the ladle for several minutes; this process is apt to destroy the texture; but after the salt has been evenly spread over it, it is cut in slices from half an inch to an inch thick until it is all cut up, then the process is repeated, cutting it transversely so as to mix the salt evenly. It is quite necessary that the salt be well mixed, otherwise the butter will be streaked and freckled.

After it has been salted the butter is allowed to stand at least twelve hours, by which time the salt has become dissolved and any water that may have remained in it will have drained to the bottom of the tray, and it is then fit to be either made up into rolls for market or packed.

In packing, if the crock or firkin is a large one

and it takes two or more churnings to fill it, the surface of the butter should be closely covered, after each churning, with a cloth, over which is spread a layer of salt. The salt is easily removed when necessary by carefully lifting the cloth. When the crock or firkin is finished filling, a space of about half an inch is left between the top and the surface of the butter, a cloth is spread closely over the butter, and the space filled up with either a thick layer of dry salt or a strong salt brine. I nearly always use the brine. The tub or crock is set on the floor of the cellar in the coolest and darkest place that can be found. Sometimes the butter loosens from the tub and rises above the brine; when this occurs a weight is placed upon it to keep it down.

I have used both the Liverpool and Goderich salt, and I can scarcely say that I have a preference. I have, however, observed one thing, and that is this, that in exhibiting at our County and Township Fairs (which I frequently do with some success), I have been more successful with the butter salted with the Liverpool than with the Goderich salt. Yet at the same time I frequently use the latter, and am very well satisfied with it.

#### Handling Newly-Drawn Milk.

The treatment milk should receive immediately after being drawn from the udder may differ according to the purposes for which it is to be used, whether for butter, or cheese, or market. But the practices and opinions of dairymen in regard to what constitutes the proper treatment of new milk for these several purposes are very diverse.

If it is to be used for butter making, as it is in nineteen cases out of twenty, the less it is handled the better; and it may, or may not, require airing, according as it is to be treated afterwards for the cream to rise. If it is to be placed in a milk-room that is kept at an even temperature of about 60 degrees, and ventilated so that the air will keep pure, no airing or stirring or other cooling need be done than to set in appropriate vessels in such a room. This is the very best treatment it can receive, and gives the least trouble as well as the best result. But very few private dairies have such a room, though it is not very difficult to build such a one, or to regulate its temperature by which cold air can be admitted or withheld if desired.

If the milk room cannot be kept as low as 65 degrees, then the milk had better be cooled by the use of cold water before it is set away, and the lower it is reduced the better, for otherwise it will sour before the cream rises, and thus do more hurt than the retention of the odor. In such a case it ought to be aired before or while cooling.

To subject milk to the changes of our climate while the cream is rising, or the butter, after it is made, is to spoil its peculiar qualities which constitute it a delicious luxury that will command a high price, and to reduce it to the level of common or inferior goods, which, instead of being sought after, must crowd its way to the hands of the consumer. It will pay every farmer who keeps half a dozen cows to build a milk-room that will be proof against the changes of the weather, one from which he can shut out the heat, and that he can warm up with a fire when too cold.—[Irish Farmer.]

#### Cows for a Creamery.

We are often asked how many cows it would require to make a creamery pay. The answer must depend a good deal upon circumstances. From 100 to 150 would ordinarily do to begin with, where there is a prospect for increasing, 100 being considered a pretty small number. But where the cows are close together, so as to require but little time to deliver the milk, a still smaller number might be made to pay better than to work their milk in separate families. From 300 to 500 economize labor to the best advantage.—[Ex.]

Dairymen of Southern New York are agitated over a new weed, "Long John." It is believed to have been brought in Western grass seed. It grows three feet high, and has the appearance of mustard. Cattle are extremely fond of it. Milk from cows feeding upon it is worthless.

The Secretary of the "Ensilage Congress," held in New York on the 25th of January last, has announced that a similar convention will be held in the same city next January, commencing on Wednesday the 24th, and continuing four days.

**Suburban Cottage.**

Our illustration on this page gives the plan of a moderate cost suburban cottage, which may suggest valuable ideas to those about building a rural home. By the sketch of the front and side elevation (Fig. 1) it may be seen that from the first piazza the hall is entered, giving access to all the rooms below, and by an easy flight of stairs to the sleeping apartments above. The library is well

F, servant's bed-room, 11x18; G, garret; B, chamber, 15x15; H, chamber, 12x15, and K, chamber, 12x18.

**Railway Gardening.**

If our railway companies would employ a gardener or two, they might employ their thousands of acres of waste land for crops, grass, fruit trees,

**Manitoba Department of Agriculture.**

We understand that the position of Deputy Minister of Agriculture and Statistics has been offered to Mr. Acton Burrows, who will at once enter on the discharge of his official duties, and proceed with the organization of the department. Mr. Burrows is an old and experienced journalist, and possesses just the qualities to fit him for the position.



FRONT AND SIDE ELEVATION OF MODERATE COST SUBURBAN COTTAGE.

adapted for a bed-room, and may have in its closet a basin and sink. It is entirely cut off from the noises of other parts of the house. Fig. 2 gives the ground plan of the cottage; A representing the front veranda, 10x16 feet; B the hall, 7x20 feet;

and so on, with profit. In many parts of Belgium the land has been planted with fruit trees and other things many years, and in Wurtemberg, for about twelve years past, a forester has had charge of the lands. He pays particular attention to

MANURE FOR GRAPE VINES.—Cold soap suds saved on washing days and applied on the surface about grape vines will cause them to grow vigorously. If too much is applied the leaves will turn yellow.

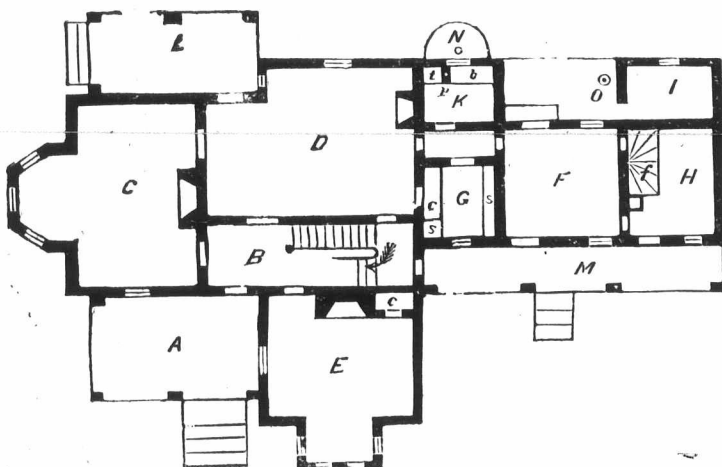


FIG. 2.

C parlor, 12x18, with bay window 4x9; D dining room, 15x20; E library, 12x15, with square bay window, 4x8; F kitchen, 11x12; G pantry, 8x8; H store room, 10x12; I coal room, 7½x8; L veranda, 8x18; N cistern, 9 feet in diameter; O well; c, c, closets; s, s, shelves; b, bath; f, back stairs; t, sink, and p, the pump. Fig. 3 gives the chamber plan. A represents the hall, 7 feet wide; C, C, C, closets; D, linen closet; E, attic stairs;

planting the slopes of excavations and embankments to prevent washing and slipping, grows quick fences, and where practicable fruit and timber trees. The garden at the stations are largely devoted to fruit, and so made useful and ornamental at once. A profit of about 14s an acre has, it is said, been made for the past five years on the ground so utilised. Why should it not be done in Canada?

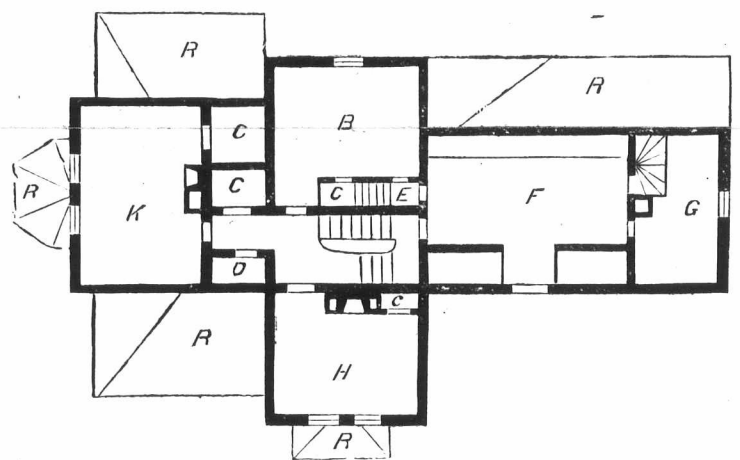


FIG. 3.

Three young men known as the Franey Bros., near Hamilton, Ont., have this season one of the largest gardens on this continent. They have under crop, to date, one hundred and seventeen acres of land, with seven and one-half acres yet unplanted—kept for late cabbage. This will make in all a garden of over one hundred and seventy-five acres. Last season the Franeys successfully grew sixty-eight acres.



**Stock.****Imported Southdown Ram Col. Webb, 45.**

The above cut represents the imported Southdown Ram, Colonel Webb, the property of Mr. John Jackson, Woodside Farm, Abingdon P. O., Lincoln County, Ont. He has taken a large number of prizes, and is pronounced by good judges to be one of the best Southdowns ever imported into Canada.

**Over-fed Pigs.**

There has never been a time when the question of over-feeding live stock of every character has received so much attention at the hands of breeders as is now the case. Pig breeders are at present considerably exercised on account of the fearful losses sustained by cholera, and it has slowly dawned upon the minds of many of the gentlemen that perhaps the evil practice of over fattening has something to do with these continued losses. Science has as yet failed to prove the truth of this assumption, but practical feeders and breeders are coming to that conclusion, and in many localities are governing themselves accordingly by discontinuing the practice of crowding their stock. Of all domestic animals, the pig goes it up on his cheek, and at the ordinary fair or fat stock show his very fullness of cheek is too apt to govern the awards. Consumers, however, do not endorse these paunchy, round, over-fed and stuffed porkers, knowing that good pork cannot generally be found where animals are seemingly fed for lard purposes and that alone. What is required and demanded at home and abroad is the long-bodied hog, which affords a deep shoulder, leanham and sides upon which meat instead of fat is the rule. There has been a growing disposition to stop the practice of over-feeding hogs, and so general has the demand become for good lean pork that, notwithstanding the universal practice to feed to the utmost capacity, breeders are now changing their views, and sending to market pigs that will guarantee good-paying block qualities. It is very reasonable to suppose that an animal overloaded with great masses of absolute fat and grease cannot be as healthy as the one which, while sufficiently fed, is not burdened with a mass that is only profitable to the lard manufacturer. Foreign dealers in American pork do not hesitate to assert that the stock of this country is over-fed, and it is to these exporters that the American breeders are indebted for the change that cannot but result to the benefit of the feeder, the dealer and the consumer.

**Colic.**

Colic is the result of the consumption of indigestible food or the drinking of a large quantity of cold water—causes which operate more frequently than any others in setting up irritation in the alimentary canal. Exposure to cold and wet is also cited as one of the exciting causes of colic, but it is one which operates more injuriously upon the system of the horse than on that of other animals.

Symptoms of colic are well known. First among the signs of abdominal pain in all animals is restlessness, which may vary in its expression according to the temperament. Cattle do not exhibit their sufferings in the same energetic manner as the horse does. A sick beast does not roll and kick as a horse would under similar conditions, but instead it will indicate pain by moving about constantly, lying down and rising again after a short interval, and now and then striking at the belly in an impatient manner with the hind leg. Other symptoms will be present, but those which have been described point to the seat of disorder. The general signs of illness—dullness, loss of animation, and, in milch cows, diminution in the quantity of milk—will be seen in colic; but they have no special significance, and will only be noted by the educated eye. The cowman observes only the shifting motion, and other signs of abdominal pain which teach him that something is wrong with the inside.

Treatment, as has been remarked, is a matter

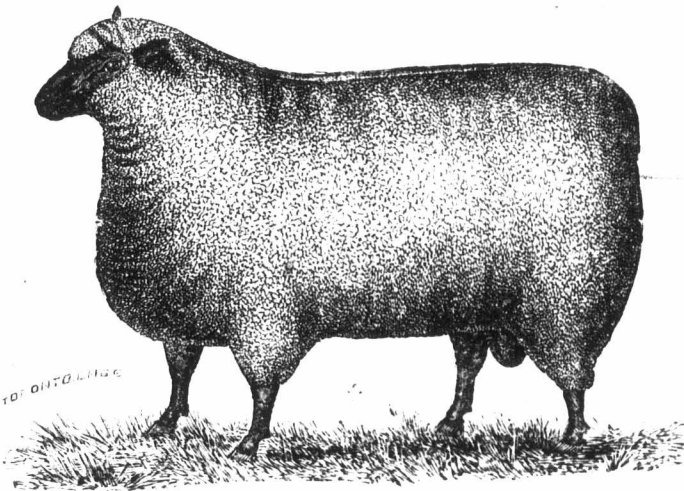
which does not receive much consideration. A good dose of salts, twelve ounces to a pound, with half an ounce of ginger, will usually produce beneficial results; but if the pain should continue, a drench containing two ounces of aromatic spirit of ammonia and one ounce of tincture of opium may be given, and repeated, if necessary, in an hour.

It is characteristic of the pain in colic to vary in intensity at regular intervals, so that after a paroxysm an animal will suddenly appear to be quite easy for a time. This peculiarity of the disease may lead an inexperienced person to believe that immediate and beneficial action has resulted from the use of a remedy which, perhaps, has had no time to produce any effect at all, as the return of the spasm after a short interval will prove.

Invasion of a portion of the intestines is a serious complication, which sometimes occurs in ordinary colic during the spasmodic contraction of the muscular walls of the canal. When the accident has happened it will be noticed that the pain, which was previously severe at intervals, is less keen, but more constant; in fact, there are no periods of ease at all, although the animal does not exhibit the more violent expressions of pain which were shown before.

Gut-tie, or twisting of the intestines, is also a complication which may be suspected when the pain of colic becomes constant and more subdued.

A fatal result is to be expected in cases of invagination and twisting of the intestines, but in the latter condition cure has sometimes been effected by cutting through the flank, introducing the hand into the cavity of the abdomen, and untwisting the gut, or breaking any cord or portion of membrane which may be the cause of the stran-



SOUTHDOWN RAM, COLONEL WEBB.

gulation. This operation appears to be very formidable, but the lower animals are not very susceptible to peritonitis, and wounds which lay open the abdominal cavity are not so serious as they are in man. The great difficulty is, in the first place, to obtain sufficient evidence from the symptoms of the existence of the disease; and it is not unreasonable to suspect that many animals have had the operation performed unnecessarily, and, whether the animal lives or dies afterwards, only the cow doctor, who is the usual operator, will know if the alleged gut-tie was present.

**Cross Bulls.**

One cause of the treachery and unmanageableness of stock bulls is, undoubtedly, due to the fact that they are kept too much in idleness. They are seldom handled except for breeding purposes, and they get little of that training which oxen and work horses get, and which makes the latter so safe and trusty. Probably there are bulls which are held at such high values that their owners would be reluctant in running the risk of the accidents which might happen to working cattle, such as overwork, heating, lameness or injuries, but it would seem that the risk to human life ought to be reckoned quite as high as the risk to animal comfort. Could we have our own way, we would have every bull in the country trained to work while young, and kept at it sufficiently to render him safe. If it were the fashion to work bulls, more might be kept. Many farmers who now keep but one bull, and that under constant fear of some sort, would keep two and have them earn their living by their labor, leaving their service as breeders,

and their carcasses when grown, as clear profit.

We are not prepared to say that a pair of bulls trained to plow and draw manure, haul hay, etc., would always be as safe to handle as oxen, but we believe the cases of cross ones would be very rare under such circumstances. The difficulty with cross bulls is, they are never handled enough to learn that they are not masters. Every domestic animal should learn early to yield and obey. Many bulls are made cross by injudicious management. Boys are allowed to misuse, or fool with them till they grow bold enough to assert their rights and independence, for all animals have rights as well as human beings. They have a right to be treated humanely by those who own or control them, and if abused they have a natural right to defend themselves as best they may. A perfectly safe animal is one that has perfect confidence in his keeper. As bulls are usually treated with clubs or pitchforks, without any early and judicious training, they certainly have little cause to place confidence in their keepers, and it is not strange that they often show distrust, and put themselves on the defensive. Could all the bulls of the country be relieved of their horns in some practicable way, there would be fewer cases to report of gored keepers and attendants.

Every calf should be halter-broken before it gets too strong to be held easily, and it should be so kindly treated at all times that it will follow its keeper and allow of being handled with perfect confidence. It should be taught to obey, but not from excessive fear. We have no doubt that bulls would be less vicious if they were more generally tied up in their stable with other cattle and allowed society. A dark dungeon is no place to cultivate kindly feelings either in man or beast. [New England Farmer.]

**Bots in Horses.**

Considering the universal prevalence of bots in horses, and the very general absence of any symptoms which indicate their presence until they are actually discovered in the manure or in the animals' stomach, it may be safely inferred that they do not cause any harm in the majority of cases—in fact, that their presence will not be known except in the manner indicated. It may at the same time be admitted that in very large numbers they may now and then produce disorder, and there have been instances in which serious damage to the walls of the stomach has been occasioned by their ravages.

Our readers often inquire as to the effects which bots are likely to induce, and also as to the remedies which ought to be applied to expel them from their location. In reply to these questions, we may premise that not only horses, but also cattle and sheep, are liable to considerable annoyance in the summer from the attacks of various forms of gadfly (Estridae). These dipterous insects, which cause often a great commotion in a herd or flock, are intent apparently on finding a suitable position in which they may deposit their ova, and each variety of the fly has its special favorite among the classes of farm stock, and is known by a title by which this leaning is indicated. Thus we have the *Estrus equi*, *Estrus bovis*, and *Estrus ovis*.

All the gadflies emerge from the state of chrysalis late in the summer, and at once set about the great business of their short lives—that of arranging for the development and security of a new generation. Accordingly, with the above object in view, the flies select their victims from among the animals on the pastures, and deposit eggs in the best available position to suit the habits of the future larval forms. Some flies are content to leave the ova on the hairs of the legs of the animals which they attack, and from this position they are transferred by the destined host, who licks them off and swallows them. In this manner horses introduce into their stomachs the eggs of the gadflies, which in that favourable nidus quickly become developed into the different varieties of the bot.

Sheep, probably on account of their woolly covering, escape the infliction of a puncture from the depositor; but their particular fly is equal to the occasion, and selects a secluded spot in the neighborhood of the nose, where the egg is deposited, and from which the newly-hatched larva can crawl into the nasal sinuses, and take up its temporary abode in comfort, secure against any efforts which the animal can make for its removal until it is in a

proper state for a change of dwelling, when it passes out, and finding a safe retreat, becomes a chrysalis, or by chance is seized by the birds, which are certain to catch the larva if they can.

It will be observed that all the larval forms of the gadfly seek merely a temporary accommodation in the tissues of the higher animals, and, whatever disturbance that may occasion, it may be urged in their favor that it only lasts for a time, and that is seldom serious.

So far as bots in the horse are concerned, we can reassure those owners of horses who are apprehensive of injury from the presence of the larva by stating that, as a rule, they do no harm—none, at least, which can be appreciated; and, further, we may advise our readers to reject all quack nostrums which are offered as remedies, because investigation has shown that there is nothing which can be safely administered which will cause the larva to quit their hold in the membrane of the stomach until the time has come for them to leave their position, and take another step in their progress to a condition of maturity.—[Ex.]

#### Neglected Education of the Horse.

When we reflect that the very young colt has not learned to scare at objects and sounds that will frighten an old horse, we can only conclude that lessons upon the horse have a double action: First he learns to take fright at sights and sounds; then he is made, in a measure, to forget these lessons, by being convinced that certain things imagined by him to be dangerous are entirely harmless. If this version be correct, then how much easier to habituate the horse, from early colthood up, to such sounds and objects as are known to be common sources of fright to the horse.

The reason of the horse becoming startled at certain unusual things when he comes upon them suddenly, or if they come upon him without warning, is that they are unexpected; and the fault in his education lies in the fact that we fail to accustom him to sights and sounds which we know he will be accustomed to when driven upon the street or road. The very young colt accepts what he is ushered into the presence of, and has no idea of having enemies to guard against.

The grown up horses about him become afraid of the senseless groom, and spring forward in their stalls or boxes when he comes near with a whip or pitch fork in hand. The young colt partakes of the fear, and from that moment is on the lookout for danger. When he goes to the pasture with his dam, it is to be in company with the notable timid horse of the farm, the one that the mischievous boys always delight in starting on the run. The timid horse elevates his head and tail, gives his warning snort, and the whole herd, including the sucking colt, obey the signal—the relic of the wild state—and from that moment the young colt is taught to look out for danger.

The dam driven upon the road with the colt by her side, is given to shying. The colt having no suspicions before, now learns to look upon the bush-stump, flag, or whatever else its dam shows fear of, as a dangerous object, a thing to be avoided. Signals are peculiar to the domesticated state, as to the state of wildness, and when the dam circles away from the bush or stump, she gives the colt the signal of danger, and from that moment the colt learns to scare on the road.

If the whip is used, then the colt, through the sudden springs of its dam, is doubly impressed with the idea of danger. On returning, as remembering localities is one of the strongest traits of intelligence in the horse, both mare and colt, as they near the spot where the imaginary danger is, will prepare for the usual quick movement to one side, and will be in an expectant state for the whip. So, as the mare is taught, the colt also learns. Its education begins when its eyes first see the light, and its ears first hear a sound.

If the mare is made to stop quickly at the first intimation that she is about to shy, and induced quietly to approach the object, neither harsh word nor whip being used, she is not only disarmed of the fear of the object, but the colt is prevented from taking alarm, and the danger of falling into a very bad habit is avoided.

We all know that early impressions made upon the child, if at all startling, are rarely, if ever, entirely effaced. The sentiment of fear is more natural to the colt than to the child, and fear to the colt is blind and unreasoning; not necessarily so, but made so by neglect in his education; for all men know, or at any rate should know, that the horse of average intelligence is quite as capable of remembering lessons that are given him with

care as some men are. We often hear it said of children that they have been ruined in their education. We rarely hear this said of a horse; yet it is as of an true of the latter as of the former.

Intelligence and tractability should be as steadily required of a horse used as the sire, as size or good breeding; for a vicious stallion gives more or less of this damaging trait to all his get. Bad temper is sometimes so fixed in the animal as to be beyond the power of man to eradicate it, or even to keep it under fair control. But in the case of a colt of fair disposition and average intelligence, there is hardly any emergency liable to arise in ordinary driving, team, or farm work, that he will not face without fear, or danger of doing harm, if he has been properly handled from the start. A spirited horse, if he has been properly taught, will go down hill without holdbacks, allowing the cross-bar to press against his thighs; while without the training, he will run away if a single strap gets loose or disarranged. In the one case we educate the horse as we do the boy, that we may render him valuable through his understanding, and the knowledge of the duties we expect him to perform; while in the other we take the untrained horse, put him in places of trust, and then blame him because he does not perform duties which he can only fully understand through training, and cannot by any possibility know the first rudiments of through instinct.—[Live Stock Journal.]

#### \$100 Prize.

THE FARMER'S ADVOCATE prize of \$100, given by William Weld, of London, Ontario, "For the best herd of five Cows for general purposes and profit."

#### RULES FOR COMPETITION.

1. Pure-breds, or grades, may compete, and animals entered in other classes are eligible for this prize. A heifer in calf to be considered a cow, and may be one of herd.

2. Persons competing for this prize must furnish a statement showing the breeding of the animals, the product of milk, butter and cheese made from them during the past twelve months, together with a statement of the management, feed, &c., with cost, both in summer and winter, and an estimate of the yearly profit from them. The statements must be given to the judges before the prize is awarded, to be to their satisfaction, and will become the property of the FARMER'S ADVOCATE.

3. The herd to have been the property of the exhibitor for at least six months previous to exhibition.

4. Judges especially appointed by the Association will award this prize.

5. Entries can be made with the Secretary up to the 18th September, 1882.

6. The rules of the Association to govern all points except as above noted.

#### The Sheep in Summer.

The idea that a flock of sheep will "get along almost any way," so far as water enters into the consideration, has cost breeders more money than many of them are aware of. That numbers have passed through an entire summer without water is true; and that those accustomed to daily access to water can be deprived of it for several days without apparent serious inconvenience, is a fact that many have seen demonstrated; but aside from these facts, every man of experience knows that sheep not only relish water, but that a full and regular supply of it is necessary to that comfort and thrift from which alone is to be expected the maximum profit. The best source is a good running stream. The less this is affected by drouths and freshets the better. The stream is better than wells, from the fact that it is always accessible, of better temperature for drinking in hot weather, and seems in every respect more inviting. Where a running stream cannot be had, the best substitute is a good well. With this is associated the additional care and labor to keep within ready reach of the flock a constant and liberal supply of water. The troughs about it should be kept full, so as to avoid the extreme variation in the temperature of the water, where the pumping is done only at such times as the animals are allowed access to it. Wind pumps, with troughs so arranged that the surplus water is returned to the well, seem to about reach the limit of convenience and desirability in this direction. Ponds, both natural and artificial, though less desirable than either of the above mentioned sources, are a frequent dependence. Though a great convenience and furnish-

ing water in many instances better than none, these should be the last resort of the flock-master, as the stagnant water under the heated temperature of the summer solstice, becomes not only unfit for drinking, but at the same time a breeding place for myriads of animalcula, causing or aggravating disorders and diseases when taken into the stomachs of animals.

#### SALT.

Salt will be taken with avidity by sheep while on grass. Where arrangements can be so made, it will be found convenient to have salt in little troughs at different points about the sleeping grounds. These should be so sheltered as to be protected from rain, and elevated so that the sheep can get at them only with their heads. They will soon learn to visit these troughs when desiring salt, and if allowed constant access to them, are in no danger of taking too much. The more common custom is to distribute the salt at regular intervals over the ground, on or near the range, whence it will be taken up a few minutes after being found. Under these circumstances, it should be given often enough to avoid restlessness in the flock on the approach of the shepherd, and so scattered as to allow every animal ready access. Intervals of five days have been found quite satisfactory, though the shepherd should be guided in this as in other details by the apparent necessity of his surroundings. Some experienced shepherds mix sulphur in small quantities with the salt, though the majority do not use it.

#### INSECT TORMENTS.

The cares of summer management are further aggravated by the presence of the well-known list of insect pests. Flies swarm, ready to transform the slightest wound, from any cause, into a nest of maggots, bringing in their train living torment and certain death. A regular and frequent inspection of the flock, during the grazing season, with an eye especially to the presence of maggots, is part of the routine of every careful and experienced shepherd. When one is discovered, the infested animal should be at once caught and cared for. Usually a thorough cleansing of the affected part, and some application for destroying the maggots, and repelling further visits of the parent fly, will be sufficient.

#### Skim-milk and Flaxseed for Calves.

R. N. in the Live-stock Journal say:

"I am anxious to raise a fine lot of grade Jersey heifer calves, and cannot afford to feed any new milk after the calf is a week old. I want to know if cotton-seed oil meal will produce the best results with skim-milk."

REPLY.—Our correspondent need have no fear of the result in raising calves on skim-milk and oil meal, when properly and liberally fed. Skim-milk and grass alone will raise good calves, if the milk is abundant and not allowed to get too sour. When too sour it causes calves to scour, and thus counteracts its good effect. Skim-milk is well adapted for raising heifers for the dairy, and it is rich in albuminoids and phosphate of lime, to give a strong, muscular and bony development. A little more oil would improve it, and for this purpose flaxseed is a cheap addition, effectually replacing the cream skimmed off. The large percentage of oil it contains prevents constipation, as well as scouring. Flaxseed should be boiled in four times its bulk of water, and it then forms a gelatinous mass. A little of this—say, a tablespoonful of the jelly—mixed with warm skim-milk, is enough for a calf from one to three weeks old. As the calf grows older, this amount is increased. If oil meal is used, it should be linseed meal, and not cotton-seed meal, for calves. Cotton-seed meal is not so easy of digestion—is rather constipating—thus adds to this quality in skim-milk. With the skim-milk and flaxseed we raised grade Jersey heifer calves to five hundred pounds weight at six and seven months old, last season. It is doubtful if they would have been better fed on new milk. When the milk becomes short, linseed meal may very profitably be added.

Be careful about permitting cattle to drink from ditches or from pools in which they are accustomed to stand, or in which their droppings are deposited. Such impure water is not only liable to injure the health of the stock, but is also a fruitful cause of malarial and typhoid fever among those who use milk product from cows thus watered.

**Entomology.**

**The Clover Seed Midge.**

This insect passes the winter in the pupa or chrysalis state either on or under the surface of the ground, and early in spring the fly escapes, when the sexes pair and the female soon becomes ready to deposit her eggs.

**THE EGG.**

The female, by means of a long ovipositor (see fig 13, c), pushes the egg down the hairy tubes of the undeveloped flowers in the young clover heads almost as soon as the flowers begin to form, which in Ontario would be during the early part of May. The eggs are so small that it is almost impossible to discover them with the naked eye, their length not exceeding the hundredth part of an inch. They are of a long, oval form, three times as long as broad, with one end slightly larger than the other. They are of a pale yellow color when first laid, but become tinted with orange as the larva within matures; they are usually deposited singly, but sometimes in clusters of from two to five—as many as fifty eggs have been counted in a single flower head. No estimate has yet been made of the number of eggs which a single individual is capable of producing, but doubtless this insect is very prolific. In about ten days the eggs hatch, when the young larva works its way down the tube of the flower to the seed, upon which it feeds.

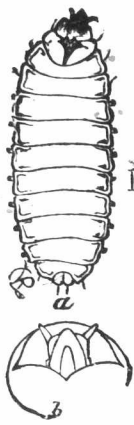


Fig. 12.

The larva when full grown are about one-twelfth of an inch long, usually of a bright orange-red color, occasionally paler and sometimes almost white. They are footless, and have a wriggling, worm-like motion; they affect the clover heads in the same manner that the Wheat Midge affects the wheat, and when mature they leave the clover heads, drop to the ground, and either work themselves a short distance under the ground or hide amongst dead leaves or other rubbish on the surface, and there enter upon the pupal stage of their existence. Figure 12 represents the larva highly magnified, the hair line at the side showing the natural size; at b the head is shown retracted, and more highly magnified.

Each larva having fixed on a suitable location, spins for itself an oval, compressed, rather tough cocoon of fine silk, with particles of earth or other material adhering to the outside, which makes it extremely difficult to discover them. Within this enclosure the larva changes to a chrysalis, which is of a pale orange color with brown eyes; on the front of the head are two short conical tubercles, and behind these two long bristles. The sheaths in which the antennae are concealed are curved outward, much like the handles of an urn. The duration of the pupa state of the early brood is about ten days. When the fly is about to emerge, the chrysalis works its way out of the cocoon to the surface, and then opening, the fly escapes.

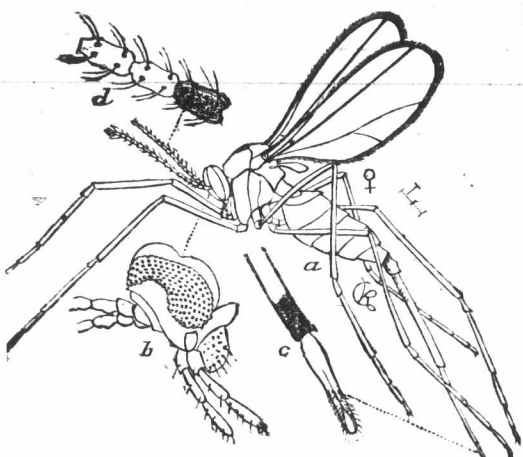


Fig. 13.

The perfect insect is a minute two-winged fly, about the size and general appearance of the common Wheat Midge. The head is black; the antennae long, yellowish-red, with sixteen or seventeen joints in the female and fifteen in the male. Wings nearly transparent, clothed with many

short curved blackish hairs, which give them a dusky appearance; each wing has three longitudinal veins, the third either forming a fork, or else becoming more or less obsolete towards the tip. Hairy fringe of wings, paler and composed of longer hairs than those on surface of wings. Abdomen fuscous, with black hairs above on each segment; thorax black, and clothed with rather long hairs. The male has an extended pair of clasping organs on the hinder extremity; the female a long pointed ovipositor, about twice the length of the abdomen.

Figure 13 represents the female fly with her four-pointed ovipositor extended; at c we have a more highly magnified view of the tip of the ovipositor, clothed at its extremity with short hairs. At b we have the head highly magnified, to show the structure of the eye, the four jointed palpi and the basal joints of the antennae; at d we have a portion of one of the antennae much enlarged. The small lines at the right g. the natural size of the midge.

Figure 14 shows the male fly similarly enlarged, with highly magnified representations of the head at b, the peculiar clasping organs at c; the pedunculated joints of the antennae at e, which are more rounded and hairy than those of the female. At e the claws at the tops of the legs are shown; and at f, forms of the scales which are distributed over the wings and body.

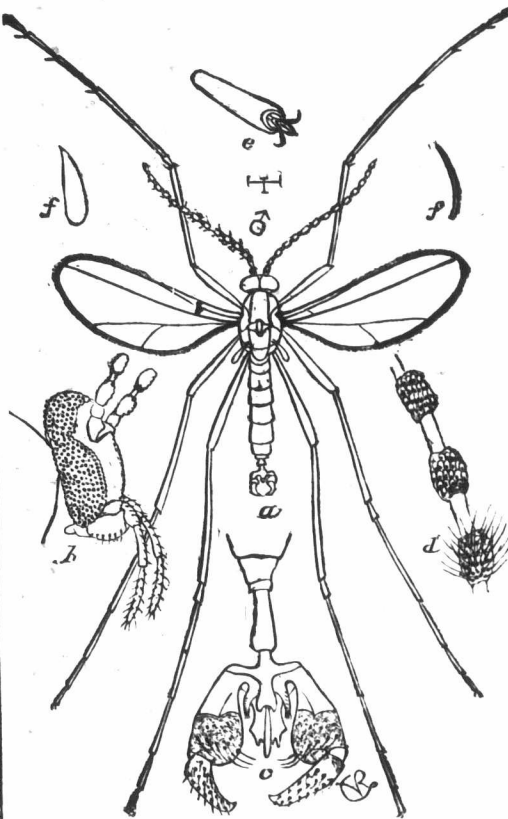


Fig. 14.

There are certainly two and probably three broods in a season; flies of the first brood make their appearance in the latter part of May, and larva may be found full-grown in the clover heads early in July; during August the flies are again on the wing, and the next crop of larva are full grown in September. From earth taken from the surface of an infested clover field, and kept in a warm room, the flies have been found to escape throughout the winter.

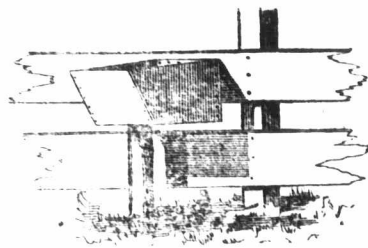
In Ontario it has been found along the line of the Canada Southern Railway, also in the neighborhood of Hamilton. At the annual meeting of the Entomological Society, held in London in September last Mr. William Weld, editor of this journal, stated that he had recently received clover heads from several correspondents infested with an insect which he believed to be this Clover Midge.

Living specimens of this larva have been found abundantly in clover seed off-red for sale. It is of the utmost importance that farmers exercise the greatest caution in the purchase of clover seed, else, while sowing their seed, they may at the same time be sowing an enemy that will to a greater or less extent destroy the crop.

The lightning-rod man, like the electric fluid, never strikes twice in the same place.

**Hints and Helps.**

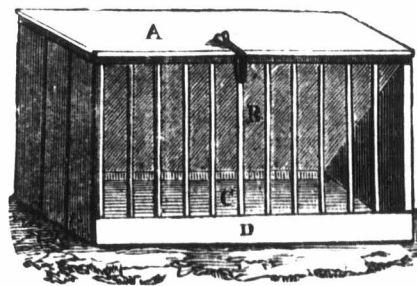
**Feed Box.**



Take an ordinary box, slant it as in figure, drive a stake in ground near a fence, to which attach box.

**Cheap Feeding Hopper.**

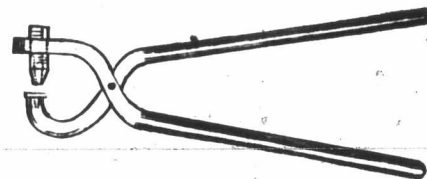
Take an old candle box, take off the lid and one of the sides; let the ends, bottom and one side remain; cut a small strip off one end of the lid, so that it will slip in between the ends of the box, placing the lower edge one and a half inches from the side, and an inch from the bottom; the other edge of the lid is to reach the top and outside corners of the ends, thus forming a deep angular box, with a long aperture at the bottom. As shown in



the cut, the lid forms the slanting side B. C forms the trough, where the corn will descend down to it when put into the angular box; then put hinges on the lid A; the open part of the hopper has a row D of slats 2 inches apart. This slat should be brought to the edge of the box, so that the fowls can just reach the bottom of the angle; the corn falls down as fast as the fowls pick it away.

**How to Ring Bulls.**

Herewith I give you a drawing and description of punch such as I use. Would not be without one, if I only had use for it once a year. The cost is as follows: Belt punch, 40 cents; blacksmith's work and iron, 60 cents—total, \$1. Take a common belt punch three-eighths of an inch in the clear, which may be bought at any hardware store. A blacksmith can cut a thread upon it, as shown



in the diagram, and insert it in a frame made as shown. On the reverse arm of the frame insert the copper belt stud for the punch to cut on. The short arms of the lever, in one of which the punch is inserted, should stand three inches apart, when the punch is shut tight against the copper belt stud. For convenience the long arm of the lever should be about 16 inches in length.

F. A. B., St. Clair.

"Beware of dogs" and tree pedlers.

"I see the collars of your new harness are too large for your team." "Yes, but I have eight horses of different sizes, and when I buy a harness I must get collars that can be used on the entire herd of eight." As I observed the scars on the shoulders of his team I wondered how his family of boys would like to wear the same size of boots, from Johnny, six years old, up to William, age thirty-five.—[Charles A. Green in N. Y. Tribune.

## The Farm.

### The Grain Harvest.

As to the time of cutting grain, especially wheat, so as to secure the greatest amount of nutrition from the grain, there has been a change of opinion among practical farmers similar to the change that has occurred as to the time of cutting meadows, though the object to be gained is different. In the harvesting of cereals the great object is to obtain the greatest quantity as well as the best quality of grain. There is a great loss from allowing grain to become fully ripe before it is cut, both in its intrinsic value and often in shedding the seeds. That the practice of harvesting grain ten days or a fortnight before it is perfectly ripe, is now more general than was customary, though some even now delay the cutting too long.

Nor is the gain in cutting early confined to wheat alone. After the stems of grass and grain and the stalks have become yellow and dry near the surface of the ground, there is little, if any, circulation of sap from the roots, the perfection of the grain from this time being accomplished by the juices already in the plant. If, therefore, the grain be cut at this stage of its growth and stacked so that the sun and wind will not dry up all the juices, enough of these will be slowly concentrated in the seed to accomplish their maturity in the greatest perfection. If the grain is left standing till it is fully ripe the maturity of the seeds may be hastened, but their perfect development is not so well effected as by the slower process of ripening in sheaf and stock. By rapid ripening in the hot sun the kernels are shrivelled, and more bran is formed in proportion to the flour.

The surest mode of ascertaining the precise time for cutting wheat and other small grains, is to open heads in different parts of the field and examine the kernels carefully. If they are generally past the milk stage, as it is called, and have become thick and doughy, it is time to cut. If cut in the milk the grain will shrink; if cutting is delayed till the grain has hardened, the flour will be less and of inferior quality, as much of the gluten goes to the shell. There will also be quite a loss from the shelling in the field. In these days of reapers there is no excuse for not securing in season the bounteous grain harvest which Providence furnishes this country. That the straw of grain cut before it is fully ripe is better both for fodder and as a fertilizer is too manifest to need proof. Cut while it is still succulent and cured in the shock, straw is not so bad a cattle food as some would like to make it.

Cutting it early and leaving it in the swath, exposed to the sun, wind, and dew, is but little improvement on leaving it uncut till dead-ripe. The sheaves should be put in shocks before any rain or dew falls upon them. In no case should grain be allowed to lie long in swath. If the sheaves are large—as economy of time demands they should be—they will suffer but little if exposed to a day's sunning, but it is safer to put them into shocks before night-fall.

English farmers have been experimenting on the time for cutting grain for years, and now the wheat harvest of England is secured a fortnight earlier than it was in the first half of this century, though, owing to the peculiarity of the climate—abundance of moisture and want of sunshine—the grains, fruits, and vegetables of England mature much more slowly than in this country. An English farmer made some interesting experiments on the results of cutting wheat at different times, and as his conclusions have been confirmed by subsequent experiments, we will briefly note them. On the 4th of August he cut a sheaf from a field of wheat when the straw was just commencing to turn yellow, and the grain was so full of milk that the slightest pressure reduced it to pulp. August 18, or a fortnight later, he cut another sheaf when the straw for a foot from the roots was decidedly yellow and the chaff well tinged, but the grain, though plump, was still soft. A fortnight later, when the farmers were generally commencing the harvest, the straw and the chaff being uniformly yellow, he cut another sheaf. From each of these sheaves he selected 100 heads on the 1st of November, which were carefully threshed and weighed with the following result:

- No. 1 (green) weighed 1,820 grains Troy.
- No. 2 (immature) weighed 2,453 grains Troy.
- No. 3 (ripe) weighed 2,166 grains Troy.

The gain in weight, therefore, from cutting wheat before it is perfectly ripe is over thirteen per cent.

The next thing he desired to ascertain was the quality of his produce harvested at different times. He took his three samples to market, and asked a large wheat-grower what he ought to charge for his different crops. The expert prized No. 1 at 61 shillings per quarter, No. 2 at 64 shillings, and No. 3 at 62 shillings. Further to test the value, he put the same samples into the hands of an experienced miller, and asked how much he would give, who, after careful examination, replied 61 shillings for Nos. 1 and 3, and 63 shillings for No. 2. The gain in quantity from harvesting wheat before it is fully ripe being 13 per cent., and the gain in quality from the same cause being about 3 per cent., it is certainly an object for farmers to start the reaper as well as the mower early.

### The Treatment of Meadows After Haying.

The general dry weather of last year has seriously injured old meadows. This can be only repaired slowly, but yet it can be repaired, and it is not advisable that old meadows or even pastures should be plowed up and destroyed for a few years, but rather to endeavor to renovate them by the proper treatment. Again, the use of the mowing machine and the gradual reduction of the surface of meadows, by the use of the machine, to a perfect level, upon which the cutting bar can slide closely over the ground and cause the knives to shear it bare, have tended in this same direction and have injured hay meadows by the close cutting that is practised. This close cutting exposes the roots, which are always near the surface, to the hot sun and the drying winds, and kills a large portion of them.

As soon as the hay is removed the surface should be dressed with fine manure or some good compost, which should be spread as evenly as possible by means of thorough harrowing, by which it is worked down among the roots, where it will do the most good in the least time. A harrow made with teeth sloping backward at an angle of 45 degrees is the best for this purpose, as it will not tear the roots out of the ground but will loosen the earth sufficiently, to work in the manure about the roots and draw the soil over them. The harrowing should be given in both directions across the field, so that no part of the surface will be missed. After the soil has been thus loosened up, some fresh seed should be given; a liberal dressing of gypsum and salt will be of great use at this time, and lastly the roller should be used to pack the roots down again, to cover the seed and to smooth the surface.

This should be done before the first week in August has passed. If left later there is danger that the young growth may be winter killed, being too young and tender to resist the repeated freezeings and thawing of the cold season. July and August seedings usually succeed better than any others, as the young plants get the benefit of the cool weather and the showers of the early autumn and make a vigorous growth before the winter. Spring seeding on the other hand brings the young plants into the dry hot days of June and July, and they have not sufficient strength to stand this hardship. The seed should be liberally applied. As a large portion of it may fail to grow it is best to be liberal with it. Six pounds of timothy and four pounds of clover will not be too much for a meadow that is moderately thin. The thinnest spots will require thicker seeding than the other parts of the field, and wherever the soil appears to need it, an extra quantity of the manure should be given. When the manure is not at hand and there are no materials for making compost, an artificial fertilizer or a mixture of these should be substituted. The special fertilizers prepared for grass are generally the most useful. Peruvian guano is a standard but costly fertilizer, and is especially valuable for meadows, being active and quick in its action, because it is soluble. A mixture of different fertilizers is often very useful; wood ashes alone, liberally applied, is very effective, but in general other elements besides potash are required. A mixture of 20 bushels of wood ashes, 1 barrel of fine ground plaster and 200 lbs. of fine ground bone, with 300 lbs. of salt, may be given to the acre with great benefit. It depends very much, of course, upon the actual condition of the soil what amount of fertilizer or manure should be used. Manure never comes amiss upon grass lands. If it is given in excess, it cannot be wasted because what is not used now by the grass will be stored in the soil and used in the future. The danger, however, is not that too much may be used, but rather that there will not be sufficient. Nevertheless in

this case it will be better to spread the supply judiciously over the whole ground than to squander it upon a portion and neglect the remainder. A very small quantity of good manure used as above stated will do a very great amount of good.

### Providing for Drouth or Short Pasture.

Perhaps the farmer, remembering the extraordinary drouth of last year, will be led to make ample provision for the possibilities of the coming season. Such precautions should be taken every season, as it is quite impossible to predict what the necessities may be. Let provision be made for the worst that may occur. Stock is only profitable when well kept, and great losses must come to those who are unprovided with extra resources in such a drouth as spread over the country last year. Let us note a few of the patent facts that show the losses of last season. Butter advanced fully 35 per cent., notwithstanding the increased manufacture of oleomargarine. Beef advanced quite as much, taking all the qualities into account. Perhaps it may be thought that the advanced price made the dairyman and beef producer even; but this advanced price only really benefited the class who were prepared for the crisis. Their production kept up, and the advanced price came with decided advantage to them. This class was very complacent, and quietly remarked that "the drouth wasn't so bad after all." Not so, however, with those who had no extra resources—the drouth extinguished their productions. Cows dried up in milk, grew thin in flesh, and did not pay expenses after the first September. Thin cattle had to be sold at a low price to those who could fatten them; but even with these the cost of fattening has been doubled, because the price of grain has risen even more than beef. They could only come out even by making a good bargain in the purchase.

The consolation to those who discount in advance all the chances of the future in this respect is, that the food provided against a contingency is active capital on hand, even if the contingency does not arise. There is no loss in making this needed provision for a drouth or other unfavorable circumstances, as it is always worth what it costs.

It is not too late yet to put in many of the crops which will feed growing cattle or milch cows in case of necessity. Sweet corn, planted on rich land, will be in condition for feeding in 70 days, although it will grow better for the 20 days following. Sweet varieties are better for milk, or even for beef, than the common field corn. The stalks are not quite so large, and the flavor is very agreeable. Pigs will fatten upon sweet corn stalks when the ears are very small. In case the crop is not needed for August or fall feeding, it can be cut and put in small shocks, where it will cure nicely for winter use. It is very much relished by cattle and horses in winter.

Golden millet may be sown any time this month, although it usually produces a better crop sown as early as the 20th of June. On a fine loam this will produce eight to twelve tons of green fodder per acre, of most excellent quality. It should be cut while in blossom when fed green. Hungarian grass is a smaller variety of millet, and is equally valuable, per weight, for feeding. Suppose the cattle feeder or dairyman to have both the sweet corn and millet, he may produce a good yield of milk or increase in weight without regard to the condition of his pasture. Both fed together are better than either fed alone. Feeders can never err by giving too great a variety of food to their animals.

Another resource which should always be remembered is, the clover crop. All well-regulated farms have this, and it is only necessary to cut it at the right time, and properly cure it, to come into the possession of one of the best foods to make up for short pasture, either for milk or beef production. Clover is a pretty well balanced food alone. We have known steers to put on two pounds per day on this early-cut and nicely-cured clover hay, the latter half of August and through September, when the pasture was hardly sufficient to keep them alive; and under the same circumstances, milch cows will give a full flow of milk for the season on this clover. The clover should be cut just as it begins to blossom. Its nutriment is then in the most digestible condition. Clover used in this manner will pay its best profit.

Let every one now look about him, and provide for any contingency that may arise.—[Live Stock Journal.

## Poultry.

### Poultry Keeping for Women.

A lady correspondent asks us if, in our opinion, poultry keeping can be managed with profit by women. Of this we are certain, that if many poor, struggling women, instead of working themselves almost to death at sewing and similar occupations, were to devote the same amount of energy to poultry keeping, they would find it at least as profitable, and certainly a more healthy and pleasant occupation. A few months ago there went the round of the various journals, a description of a widow who had been left to fight the battle of life with a family of little children, and who, to the consternation of her friends, rented a small house together with a few acres of land, and invested her all (some \$200 and \$300) in poultry. The first year she not only was able to maintain herself and children, but was able to greatly increase her stock. In the course of a few years she was able to purchase the house and land, and this all from chicken raising. Many instances could be cited of the profits to be derived from poultry raising, and one case in particular that is actually known to the writer, of an elderly widow who is able to provide herself with all the necessaries of life by keeping a few chickens. If a woman intends making a living by poultry keeping and either owns or can rent a cottage and small lot of ground for the purpose, she must make up her mind that it is business, not play, and she must devote her time to it same as any other occupation. If there is a barn or other building, so much the better; this can be easily cleaned and fitted up in a suitable and simple manner to receive her stock, otherwise she would have to build a hen house. As her trade increases, so can she increase her buildings; it is of no use overcrowding herself until she gains experience. Suppose she buys 200 young chickens and 20 roosters for a start, she will find that number plenty; these she ought to be able to purchase for 25 cents each for the hens; the roosters may cost a little more, but by all means get good, large, young roosters, because, even if the hens are common, the roosters will improve the breed. By going to some breeder of fancy poultry she will be able to obtain the cullings from his roosters at a reasonable price, and although they may not be up to exhibition mark, are still good enough to improve the breed of the common hens. Of course, if able to get a few well-bred hens by the same means, decidedly do so, and the eggs from these birds can be used for breeding. With reasonable luck 200 hens should lay about 10 dozen eggs per day; these, at the very low figure of 10 cents per dozen, will be \$7 per week; but eggs are not always so very low in price as 10 cents, and when they are they should be stored in the cellar or some cool place for a few days till the market goes up. With the increasing demand in our cities, eggs will now almost sure to bring a fair price, 15 cents at least, that can be taken as the average price all the year round. For feed, taken all through, corn is the best; this can be purchased from the farmer in the cob for about 60 cents per bushel, and, after shelling, if the cobs are taken care of and put in a heap in some dry place, make excellent fuel for summer. Half a bushel of corn a day, with what they can pick up in the field, will be sufficient for that number of fowls; it should be judiciously fed so that all shall get their share. It is too much the rule to over feed poultry; the consequence is that they get lazy and hang around the building all day long; they should be made to work for their living, and by not feeding them early in the day—making them find their own breakfast, feeding them a little before noon and

again shortly before roosting time, the birds will not only be healthier, but will lay much better. Give them plenty of water to drink. Never feed them round the house door, else they will be always skulking round the door looking for tit-bits; save the scraps and feed them to the young chickens. Some of the hens soon will want to set. One part of the building (the darkest) should be specially set apart for this purpose, and the nests so arranged that the birds will not disturb each other; don't set more eggs under each hen than they can properly cover, and, as the different clutches come out, put the hen and chicks in a coop in some retired part of the run, where they are not likely to be interfered with by the roosters or spiteful hens. If a part of the run can be set apart for this purpose, so much the better. Feed the chicks upon crumbled bread, just sufficiently damped to make it crumble nicely; see that they can have a constant supply of clean water placed in such a manner that they can only drink and not wet themselves. Fasten the coops up till after the dew is off the grass in the mornings. After they are a month or six weeks old they will thrive better if allowed to roam with the old hen. These chickens will be ready to fatten in 10 to 12 weeks time. Eight to ten days is plenty long enough time in which to fatten chickens. Fasten them up in long, narrow boxes with lath fronts, and a shallow trough running along outside the front. For fattening feed oatmeal is the best, should be damped and given to them four times a day, just sufficient for them to clean up their trough. If fed for more than the time mentioned, they will go back in condition. So profitable is fattening chickens that we know of one establishment where many hundreds are fattened each week. The person whose business it is purchases lean birds and fattens them up for market, keeping half a dozen women to attend to the affair. It is scarcely necessary to tell a woman that in this, as well as any other business, cleanliness is indispensable. Don't spare the lime wash. Dry ashes or earth should be put under the perches, &c., which will make it easier to clean out the house, and the manure thus made will be very valuable, and will sell for a high figure. If more hens want to sit than is wanted for that purpose, kill and market them directly they cease laying; don't bother feeding them till they lay again. If a woman goes into poultry raising, it is like any other business, the more it is pushed the better it will pay. The egg merchant in the city should be communicated with and arrangement made for his teams to call regularly for the eggs, and suitable packages left to pack the eggs away in, or, if too far distant, look out for the egg pedler calling at the store and trade with him; this will save the middle man's profit and give it to you. And if in the vicinity of a market, go regularly to market with the dead chickens, and establish a run of customers for yourself. If nothing but good poultry is sold, there will always be plenty of customers who will purchase at your own price. In winter, if the hen-house is kept warm, and the birds fed on warm food mixed with a little red pepper, and occasionally a feed of bullock's liver chopped small, a constant supply of eggs can be kept up, which, if not as numerous as in summer, the better price will equalize the profit. Never keep a hen longer than two and a rooster longer than three years. Keep improving your breed, but don't be tempted into fancy breeding; leave that to persons who can better afford it.

A great deal can be written on this matter, much more than we can devote space to, but we shall perhaps return to it in another number.

### Uses of Late Chickens.

There is a prejudice in the minds of many persons against chickens reared late; and, even though perhaps they have been hitherto unsuccessful in rearing, owing to the scarcity of broody hens and the coldness of the early part of the season, they hesitate to set additional, thinking that the result will be unsatisfactory.

A well known authority on poultry rearing and breeding, believes this to be a delusion, and strongly recommends all poultry keepers who have not abundance of chickens to set as many hens as they may think necessary. If I wanted any further argument than the result of my own experience, I would say, take a lesson from nature. If you set your hens at once, the chickens will be out with

the bulk of the young pheasants that are hatched in the coverts; and if, instead of cooping the hens, they are allowed to ramble at their own free will, a full amount of success may be depended on, provided the chickens are well and properly fed several times a day. I hardly know what it is to lose a chicken except by accident. I have not a coop on my premises, and the hens are not shut up at all—they go under what shelter they choose to select, and are out about scratching for their progeny as early as they feel inclined.

It is true the young birds will not realize high prices as early chickens. They will not lay next November or December; but if allowed to live they will attain the full size of the breed, be most valuable as a supply for the table during the winter and early spring months, and come on as good layers when the very early hatched pullets have become broody.

Reared in the natural manner I recommend, chickens are literally no trouble; they become much stronger, hardier, and more vigorous than those under coops, that get no worms, insects, or the thousand little delicacies that the old hen is always finding.

## The Apiary.

### Different Varieties and Crosses.

Italian bees are considered to be superior in the following respects: They possess longer tongues, and thus can gather from flowers that are useless to black bees; this superiority is not so noticeable in the height of a good honey harvest as it is in poor seasons, or in times of scarcity, when the Italians will often be storing surplus from red clover, or from some other source not available to the blacks. They are less disposed to rob, or to be robbed, than are the black bees. They are almost proof against the ravages of the bee moth's larva. They are disposed to remain quietly upon the combs while being handled, which saves the operator much annoyance, and enables him to find the queen with little trouble. They are more amiable in their dispositions, as well as more active, energetic and enterprising.

The German or black bees excel in the following particulars: They are more ready than the Italians to work in honey boxes not closely connected with the brood nest. Comb honey made by the blacks is usually more attractive, that is, has a whiter appearance. This is because they leave a longer air-space between the capping and honey than do the Italians. As comb-builders, the blacks have no superiors. One of the most disagreeable features connected with the handling of black bees, is that they will run hither and thither, gather in bunches and festoons at the bottom of the combs, and the clusters often become so heavy that a slight jar will cause them to drop off upon the ground. This restlessness makes it very difficult to discover the queen. The blacks are also more easily provoked to anger.

A cross between the Italian and German bee usually exhibits some of the traits of both varieties. As honey gatherers this class of hybrids is seldom excelled; and were it not for their irascible disposition, probably no better could be found. But I have often noticed that the progeny of a black queen that has mated with an Italian drone usually combine the good qualities of both varieties. A very successful apiarist says: "I claim, however, that by judicious crossing, as near as I could direct, I now have hybrid stocks that are as amiable as any bees I have ever seen in my apiary, or any one else's, and that these bees are superior to any as honey gatherers, both in quality of combs and quantity of honey. I have, during the thirteen years I have kept bees, carefully tested the merits of those bright golden Italians, and also the dark ones, and the crosses I have made, and I speak from my experience, observation, and the interchange of ideas with others."

In crossing the Cyprians and Syrians with the Italians, the best results seem to be obtained when Cyprian or Syrian queens are mated with Italian drones. If the mating of queens could be as easily controlled as the mating of our domestic animals, a superior race of bees would probably soon be developed. Mr. D. A. Jones is trying to do something in this line by establishing apiaries upon isolated islands in the Georgian Bay, where the mating of queens can be controlled with absolute certainty. It is possible that a mixture of these different varieties of bees may result in a bee that will be far superior to all others.—[Ex.



**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 ¼ ounce. We do not hold ourselves responsible for the views of correspondents.

#### COLLIE DOGS.

SIR,—I have a young Scotch Collie dog and wish to know how to train him for sheep. Would you please inform me through the *ADVOCATE* if I can get any book with hints on training dogs; also if there could be procured in your Province, a good Scotch Shepherd, and the pay which they receive? By answering the above you will oblige.

J. D. R.

[It is better to have the young dog go out at first with a well trained steady one; he is then quickly and easily taught from the example of his associate. But I have seen dogs that inherited so remarkable an intelligence as to break in themselves well without such an instruction. In training a shepherd dog you should begin when it is six months old, or as soon after as possible. If left too old, he becomes stubborn and is not near so teachable as when taken younger. The first thing to be done is to take him among and around the sheep, till they become so familiar as to welcome him as a friend, and above all to never start at his presence or be afraid of him. Then take a single sheep, or perhaps two or three, in an ample yard or pasture, and assist him in driving. After this take a great number, and if when driving any one of the flock rushes off by itself, teach him to instantly bring it back. Always speak kindly to the dog, and be particular to pat and encourage him when he does well. Never strike or punish him in any way; if you do it is likely to cow and make him afraid of you. After following up these lessons for awhile, stand a short distance from the flock and send the dog to drive by himself. In doing this you need not use the shepherd's technical terms, but if you do not know them because being untrained, you can accustom your dog to any words of command you please; and also to the waving of your hand to the right or left or forward as you wish the flock to move. After a time the dog can take the flock out to the pasture by himself, and go for them when to be brought back, and this he will do from a mere word of command or the waving of the hand. When taking the flock to distant pastures on the English Downs, there being no fences on these, the shepherd usually goes forward slowly, the dog trudging alongside, and the sheep following them, which they will do without stopping or swerving to the right or left. But when on a public road this is reversed, so that the shepherd and dog can have the flock in full sight before them, to see that nothing obstructs or turns it out of its course.]

SIR,—Having just returned from a visit to the great North-west, and not having "an axe to grind," perhaps a plain, unvarnished statement of facts would prove of interest to the readers of the *FARMER'S ADVOCATE*. The railway fare to Brandon is \$27.50, but the return is \$35. Why this is no person can understand. On the 25th May there was ice 2½ inches thick. The country from Brandon to the Bend (so called because of the large bend in the Little Saskatchewan River) is rolling and interspersed with numerous lakes varying in size from 50 to 500 acres. A great portion of the land is alkaline, parched, and is full of cracks; the rains cannot penetrate these lands except through the cracks, and to bring it into cultivation it will have to be thoroughly drained and manured. Here and there are to be found small tracts of good land, but the majority is alkaline land. The lakes west and north of Winnipeg contain no fish, and all that is stated in the various pamphlets, &c., published by interested parties, of the lakes abounding with fish, is simply untrue. Fish could not possibly live in them, as the majority of them are nothing but stagnant water, the stench from which

is often almost unbearable; and you can always tell that you are approaching water by the offensive smell. While on the water subject, I may as well state that the water for drinking and domestic purposes is the reverse of good, its astringent properties being very great.

The Syndicate lands, and lands reserved for educational purposes, have been gobbled up by speculators, who are holding them. Government lands are not for sale except to actual settlers, who have to reside at least six months out of each year for three successive years. Disposing of the school lands in this manner is not likely to benefit the schools; as the settlers take up land in the vicinity and land becomes more valuable, the speculators will reap the benefit. I do not think it will ever be a dairying or stock-raising country, the winters being too long. June and July are actually the only months in which grass will grow, after which there is no growth for grass till November; then the winter rapidly follows. There are not many varieties of grass grown, nearly all depending on the natural grass. This cannot be cut or heavily grazed for more than three years in succession, without killing off. There is no doubt but wheat will have to be the crop of the country, and it will not do to change the ground to other grains, as the winters are so dry that other grain that had been shed upon the land remains uninjured by the winter and springs up with the coming crop. I frequently saw fields of mixed grain that had resulted in this manner. The only way that a change can be made is after a summer fallow, there being no fall rains to make the dropped ears germinate and get killed by the winter. The summer is subject to heavy frosts, which, if they happen in June or July, when the grain is soft, severely injure the crop; but if they do not occur till August, when the grain is more matured, they are not so injurious. Although flour made from wheat thus frozen is not very good, I have seen as good flour sold at \$3.00 per bag in Winnipeg as ever I saw in all my life. Wheat, 60 cents; oats, \$1.00; potatoes, \$1.00 per bushel. Turnips do not grow well, the fall being too dry. Straw in Ontario is better feed than their hay.

The land west of Winnipeg is good, and about 40 miles around Portage-la-Prairie the soil is good, but light. That about Turtle Mountain is also good. The land at Riding Mountains is good and well timbered with poplar, but that portion of the country is subject to the terrible June frosts. The settlers' houses are mostly built of logs 6 inches thick and plastered between the joints with mud; they vary in size from 12 x 12 to 14 x 18.

I conversed with about 150 settlers that had been in the country from two to five years, and with the exception of two young men, they would all prefer living in Ontario, and are waiting a favorable opportunity to dispose of their land to enable them to do so. Many doubtless were homesick, and that will in many cases wear out, but in my opinion I would prefer 100 acres in Ontario to 300 in Manitoba. The settlers are very hospitable, and as there is not much travelling done, strangers are made welcome. In many cases they refuse to take pay for the accommodation. Not so with the teamsters, who seem to think each traveller legitimate prey, and their charges are simply exorbitant. One fellow demanded three dollars for giving myself and companion a lift of only 6 miles. Travelling on the trails is very wearisome. The trails have been traversed for generations by oxen drawing carts, the wheels of which in time have cut ruts to the depth of about 12 inches. As these ruts get too deep, a fresh track is made alongside, and as the carts are narrower than other vehicles, it makes travelling with horses very slow and wearisome, and any ordinary man can get along faster on foot. Horses are not numerous; they cannot stand the ill-usage, and feeding them on grass without grain soon finishes them off. The numerous sloughs are hard on horses as well as upon men; oxen don't seem to mind them so much. When you come to one of them there is nothing for it but to take off your boots, roll up pants and go through the best way you can, either by springing from one tuft of grass to another, or plod through; frequently the vehicles have to be unloaded and the goods shouldered across the sloughs and rivers that the trails cross. I saw few sheep or hogs around Brandon. Cattle and cows are scarce, and cost from 60 to 90 dollars each; they are principally from Minnesota. The prevailing opinion in Manitoba is that Hudson's Bay will be the outlet for the country.

In summer the climate is healthy, but people are apt to catch cold in June, the days being very warm and the nights so cold that people have to

be well blanketed to keep at all comfortable. It is not safe or prudent to cast off flannel undergarments even in summer. The air being very pure and dry, is very healthy, and considered good for consumptive persons.

A man cannot undergo nearly as much work as in Ontario without being fatigued. A feeling of lassitude soon overtakes him, although at first feeling like doing any amount of work. A peculiarity of the climate is that you cannot run any distance, and indeed, as you rise the Rocky Mountains, the air becomes so thin that it is impossible to run a few rods without being thoroughly pumped out. Machinery can remain out of doors for years without taking as much harm as it would do if out for only a few days in Ontario. Sound does not travel far; bells are almost useless, cow bells especially, for you are upon the animals almost before hearing the tingle. And the large town bell in Winnipeg can only be heard a very short distance.

In my opinion, only the very hardy varieties of apples, such as the Russian or Siberian Crabs, will grow there. Small fruits, such as currants and gooseberries, etc., thrive. Wild ducks and geese are abundant, and I was informed that there are plenty of wolves and foxes in the vicinity of the Hudson's Bay post at Riding Mountains.

After leaving St. Paul, railway travelling is not very pleasant, owing to the spongy, springy nature of the soil; the jolting is dreadful. The same may be said of riding in any vehicle, and it will take years for the tracks and roads to settle. My return journey was done in very good time, leaving Winnipeg at 2.50 a.m. on Monday, and arriving in London at 11.50 p.m., Wednesday.

To be candid, I consider the country very much over-rated and lauded by interested parties; in fact, a great many lies have been told to get people into the country.

R. A., Warwick P. O.

#### HEREFORD CATTLE.

SIR,—This breed of cattle were first brought to this continent about the year 1820, and the experiments with them were so encouraging that the importations soon became many and large, and at the present time are pouring into Canada and the United States by large numbers. The Herefords are being sought after, especially for grazing purposes, by the ranchmen of the Western States and Manitoba. They are not only the best grazers known, but are equally as profitable for stall feeding, as they will thrive well and even get fat on feed that the Shorthorn cattle won't smell. In England Hereford beef commands a cent more per pound than the Shorthorn, owing to the meat being better marbled and more juicy; and there is also less shrinkage in killing, for example—in 1880 a Hereford cow, slaughtered at Detroit, dressed just 70 pounds out of every 100. In the same year in England there was a Hereford steer exhibited that weighed 4,480 pounds (live weight), so we can easily see they are capable of carrying an enormous weight along with the extra quality. Another point in favor of the Herefords is that their flesh is laid on the most valuable parts, viz.: hams and loins. It is not an uncommon thing to hear breeders of other breeds of cattle, in speaking of the good points of their own cattle, say, "they have a Hereford ham, or a Hereford loin." The milk of the Herefords is rich and equal in quantity to the Shorthorns. They are the most reliable breeders, hardiest, and the least liable to take disease of any breed known; all these good points are the outcome of a clear and distinct pedigree, without ever having anything to do with other breed or breeds. Last, but not least, they are second to none for the purpose of improving our native stock, as they leave a double impression, an excellent frame for the laying on of beef, and the exact Hereford color, along with all the other good points that have already been mentioned.

AN OBSERVER, Scotland, Ont.

#### RUSSIAN MULBERRY.

SIR,—Can you tell me whether the Russian Mulberry is hardy, and where it can be procured? A. W., Barrie, Ont.

[The Russian Mulberry is quite hardy in Ontario, and it is a pretty tree, of compact growth and dense foliage. The tree makes an excellent hedge when kept sheared. The Russian Mulberry will be given this fall as a prize for new subscribers; for a large quantity you had better write to some of the nurseries, whose adverts. constantly appear in our columns.]

Sussex, England, 29th May, 1882.

MY DEAR SIR,—I am writing to ask for your advice, as my youngest son is thinking of going to Canada. I have received your address from a friend, who informed me that you would be both able and willing to give me the information I require, and forwarded it to him with a particular request that he would immediately write and ask for instruction regarding the step he is about to take. I understand that 150 acres are given on application to all over 18 years of age, and another 150 to be had adjoining at the end of 7 years, on easy terms. The railway takes the emigrants as far as Winnipeg. I dare say you will understand to what part of the Dominion I allude, and can at once say whether desirable or otherwise. He has not much capital to take for the cultivation of the land. It must be managed as moderately as possible. He has five boys to take with him, the eldest one 17 yrs. old, the next 16, then 14, and two little boys.

You will, I dare say, be able to tell us the nature of the soil and probable results; also tillage and some particulars as to the duration of the snow in winter and when the spring commences; what cattle, implements, etc., etc., will be required. I conclude a house must be had, but whether obtained here or in America? Wooden houses are prepared and easily set up, but if purchased here I fear the cost of conveyance would be considerable.

Any hints that you can give will be very gratefully received, for I fear that he is not aware of the difficulties and self-denial required to carry on his work. If I am not imposing on your kindness, may I ask for an early reply, as he is impatient to be off; but I am by no means satisfied that it is a prudent course for him to take. I should prefer New Zealand or Queensland, where I think his knowledge of sheep might get him the situation of manager to a sheep run. May I write quite plainly, to let them know all the perseverance, self-denial and hard work that will be required. With very kind regards, believe me, yours sincerely.

P. S.—Excuse my troubling you, but I feel sure you will kindly give me your opinion, which I shall greatly value from your long experience in America.

[I forward you the Government advertising pamphlets and other circulars. I place much more credence on it than on those who publish works solely for the purpose of inducing immigration. I have been as far as Portage-La-Pravie myself, and have now a son in the North-West Territory. I failed to see the country in the light that many picture it, and my son's reports, when I hear from him, will tend more to confirm my opinions in regard to the North-West Territory than all the accounts that I have read. From my own observation I could not advise your son to take his wife and family to Winnipeg. Canadians know as yet comparatively little of that country, and I fear your son knows less. He had far better go alone if he has made up his mind to go, and leave his wife and family until he has prepared a place to receive them. If the education of his children is provided for, by no means think of taking them to settle on land in the North-West until they are 16 years old. Then their education for obtaining a living will commence. It is my opinion that your son would do better, be much more comfortable, and his wife would be happier in Ontario; and here the children have as good an opportunity to receive a good education as in England. It is my opinion that he could purchase a farm here, with house, orchard, barn, stock, etc., for a less sum than it would cost him to get a lot in order and keep his family until he could make an existence of it, in the North-West Territory. Many speculators have done well in Winnipeg, and the world has heard about them. Quite as large a number have lost heavily; "dead men tell no tales." I am not prepared to give an opinion in regard to Queensland or New Zealand in comparison with Canada, but with industry, economy and common sense, a good, comfortable living is obtainable in Ontario, and you would think so if you were in any one of our western cities, and saw the thousands of comfortable carriages and well-dressed farmers, farmers' wives and daughters that are to be seen on any holiday. The majority of these comforts have been earned, the farms paid for, and brick houses erected by the owners in a few years. I doubt if New Zealand or Queensland can show such a number of really comfortable, well-to-do farmers as Ontario can; neither do I

think any part of the United States can exhibit such independent, well-to-do farmers in 100 miles square as can be found in this locality where I am now writing. We give this letter as a sample of the correspondence we are frequently receiving from Europe, as well as different parts of this Dominion, regarding advice as to settlement, etc. We deem it but proper to publish this, as it will save us much letter writing, and many of our friends can refer to this.]

SIR,—Will it pay me to print a shingle roof? Please answer in next. A. F.

[Perhaps some of our readers will give their experience.]

SIR,—I keep a few bees and am frequently losing swarms by their going off. I read a description of the manner of hiving them before they swarmed. Can you describe the method and oblige? S., Orwell, Ont.

[First, see that your bees are strong in numbers and show signs of having the swarming fever. This can be easily understood by the presence of drones or drone-brood in the combs, and after we can see them fly out of an afternoon; they being the male bee, they do not labor, and are only useful during the swarming season. If all the above signs are as indicated, you can now use some smoke to quiet, or rather compel them, to fill themselves with honey, which they will do, if you give them a good treat of smoke (always use a first-class bee-smoker with cotton rags, or rotten wood is good), and now turn your hives of bees upside down and sprinkle them with a little clean water; now have a box of gum as you desire, to keep them in, and set it over the bees and drum on the hive pretty hard for a few minutes, when all the older bees and queen, with quite a share of the young bees under fourteen days' old, will also go up into your new hive, which you can now take off gently and set it at the old stand; place and give the old hive with the brood and combs a new location, say six or eight feet off from the new hive; now watch carefully for the action of the bees, as they will soon leave if the mother queen is not with them, but if she is in the new gum all is right, and your work is done.]

FENCES.

To an enquirer from Huntsville, Muskoka, Ont.: An excellent method of setting fence posts both for solidity and durability is to pack around the posts in the holes with stone tightly rammed down. This holds the posts firmly and admits air about the posts below ground, which tends to keep them dry, and prevents rotting. The spaces may also be run full of thin cement, and so a solid hard packing be made about the posts. For the cement either water-lime and sand may be used, or one part of common lime, with a third part of water lime and five parts of sharp sand, with water enough to make a mortar thin enough to run. The same quantity of posts and pickets, or posts and rails, will be required to set a fence on a slope, or over a hill, as on level ground; if the rails are kept level, or the bars for the pickets are level, or if the pickets are put the same distance apart, the following diagram will show it:



When the rails are laid on the same slope as the ground the posts will necessarily be somewhat nearer together than if they were laid level.—[Ex.]

PRICKLEY COMFREY.

SIR,—Perhaps our experience may be of interest to some of your readers. We brought out some roots with us from England and planted them on sand soil, in which they grew very well. It costs considerable to start a field, but a small patch could be planted at a trifling cost, and the following year one would have sufficient for setting out a considerable piece of ground. To teach stock to eat it, it should be given to them before they get a bite of fresh grass, and they will soon get accustomed to it and like it; pigs are also very fond of it. Much of it should not be given to milking cows where butter is made for sale, as it makes the butter rather a pink color, but we have not found it give any taste to the butter.

G. BROS., Oakville, Ont.

SIR,—I am now desirous to get your opinion with regard to the color of Southdown sheep, or more particularly Southdown lambs. When young should the body be spotted or dark, as well as the head and legs? Some tell me that grey brown is the fancy color at present, others say that very dark brown or black for head and legs are preferable, and the body also when young may be quite dark, almost black or sooty colored. As I am only a young beginner with Southdowns I hope you will answer in the June number of ADVOCATE, and oblige, yours respectfully,

A. K., Winfield P. O., Ont.

[When young the body of all the different breeds of Down lambs is generally more or less spotted or clouded, occasionally one may have its body light colored while another may have a dark colored body. Color makes little difference, as if purely bred they will all have white wool when four months old. The color of the face and legs of Southdown sheep over four months old vary from light ash color to greyish brown. Dark brown or black faces are rarely found in highly bred flocks.]

SIR,—I see in your ADVOCATE an insertion of patent medicines prepared by W. Lumbers. When I forwarded you an advertisement of patent medicines you declined it. Would you please explain. Yours respectfully,

AGENT, New York.

[The advertisement that you tendered was such that I deemed it would be of much more injury to my journal and my subscribers than benefit. Mr. Lumbers' medicine I have used myself and found great benefit from it, also we know of highly honorable persons in this city that have used Lumbers' preparation, even when doctors' medicines have failed. We do not object to reasonable and beneficial advertisements, but there are many fraudulent or injurious ones. Such we reject, if we know them.]

SIR,—Can you, in next month's issue, give us a concise description of cheese-making on small scale. D. S.

[If you are a novice in cheese-making and can obtain rennet extract, that will be best, because it is always sweet and uniform in strength, and is accompanied with directions for using. But if this cannot be had steep a good sweet rennet in weak brine for at least two days in advance of the time it is required, and give it several good rubbings, so as to extract the strength. Strain the night's milk, and set it where it will keep cool and sweet. If the cream is required for butter, it can be removed in the morning, and the milk placed in the cheese-tub, in which also must be placed the morning's milk. Heat the morning's milk sufficiently to raise the temperature of the whole to 62 or 94 degrees. Next add rennet enough to cause coagulation to begin in about 15 minutes. The exact quantity of rennet can only be determined by experiments. When the curd is hard enough to split with a clean fracture before the finger as it is passed along, it should be cut into blocks, say two inches square, and allowed to settle for 10 or 12 minutes. During this time the whey will form. Then gently break the curd with the hands and let it remain another 15 minutes. At the expiration of this time dip off a portion of the whey and heat it, being careful not to scorch it. Gently lift the curd again and break into several pieces; do not miss any part. Add warm whey until the mass reaches a temperature of 98 degrees. The curd should be broken and stirred while the whey is being added. The mass remains some little time, when it must be stirred up again. This process to be continued until the curd is firm, so that it will readily fall to pieces after being pressed in the hand. The draining process next begins. A cloth strainer is laid over the top and the whey dipped off down to the curd. Next the curd is dipped into a strainer prepared for the purpose (usually a slit-bottomed basket with a cloth strainer inside) to drain. The curd is broken up with the hands, and when nearly dry salt is added at the rate of about 4 ounces to 10 pounds of curd, the whole mixed thoroughly, and then put to press. In 2 or 3 hours it is turned and replaced in the press. Next morning the cheese is taken out and rubbed with a little melted butter. It should be turned and rubbed every day until it is cured.—Irish Farmer.]

SIR,—I think it is not generally known that the Burdock or wild Rhubarb can be easily eradicated by cutting it off with a sharp spade just below the collar or ring. A few moments at odd times spent in this way would much improve the appearance of many of our homesteads, and soon make an end of what is a great nuisance in many a fence corner.

W. S. S., Mitchell, Ont.

SIR,—Could you give through the ADVOCATE a receipt for destroying bark lice on fruit trees? I have tried sulphur and lime mixed, but to no effect.

G. W. B., Petitediac.

[To exterminate bark lice wash the part infested with strong lye, or a solution of good soft soap.]

#### LAMENESS OR WEAKNESS IN LEGS OF YOUNG PIGS.

SIR,—We have found that putting a small quantity of fine ground bones, which can be obtained of most seedsmen, in a little shorts or bran, and mixing it up so that they will adhere well together, is a very successful remedy for lameness or weakness of the legs in young pigs, which diseases we have often seen attributed to rheumatism, when it has been occasioned by a want of sufficient bone material to enable their legs to support their bodies. Young pigs that are kept on a board floor and highly fed, we find very subject to it, but the above remedy invariably cured them.

G. BROS., Oakville, Ont.

### Farming for Boys.

BY THE AUTHOR OF "TEN ACRES ENOUGH."

#### CHAPTER IV.—Continued.

The fact was that Uncle Benny, discovering how tractable these boys were, and how much they needed the right kind of instruction, had subscribed for two or three papers which he knew contained such reading as would be useful to them. After examining them himself, he would select some subject discussed or explained in them, which he thought would be important for the boys to understand, and then, putting the paper into his pocket, would give them, on the first suitable occasion, a verbal account of the matter, or start a discussion about it. After it had been pretty thoroughly debated and turned over, he would produce the paper and read the article aloud. Of course it confirmed all that he had been saying, and as it was in print—for they saw it there—it clinched the argument beyond dispute, and must be so.

But this little stroke of ingenuity was not adopted by Uncle Benny for the purpose of impressing his audience with an exalted idea of his superior knowledge or wisdom, but merely as an attractive mode of interesting their minds in subjects with which it was important that they should become well acquainted. It was surprising how much his method of proceeding interested them. There has been a great deal said of the usefulness of farmers' clubs, and of the addresses delivered before them. No one will doubt their having done good service to the farming community, or that the more of them we have the better it will be for us; but, considering the size of Uncle Benny's audiences, and the general lack of knowledge pervading them, it may be doubted whether his lectures, delivered sometimes in the barn, sometimes in the rider of a worm-fence, sometimes even when hoeing up weeds, were not quite as productive of good as many others having not only larger audiences, but greater pretensions.

His system had another advantage. The boys always wanted to see the newspaper for themselves, to have it in their own hands. This was exactly one of the results the old man was desirous of bringing about, as they were sure to read over the articles he had himself read aloud, besides studying the remaining contents. As he had great faith in the value of agricultural papers among farmers' boys, as well as among farmers too, he kept the boys supplied with all the reading of this kind they desired.

Now it happened, oddly enough, when Tony King said he wanted to give up farming and go to the city, that Uncle Benny had that very week been reading an article in a city newspaper which spoke about farmers' boys rushing into it. The old man, being equally opposed to their making such a change, laid it down to Tony very plainly indeed. He told him the idea was absurd; that he didn't know what was best for him; that his great want was to learn to be contented where he was, and to wait until he was at least five years older and wiser before he thought any more of changing. Then, by way of settling the matter, he drew the

paper from his pocket and read as follows:—

"The very worst thing a country boy can do is to leave the farm and come to the city, in hopes of doing better. Yet they come here every week by dozens, giving up good places where they are well taken care of, and pitch in among a crowd of strangers who take no notice of them, or give short answers when applied to for a situation, or even a small job. They take it for granted that there is always plenty to do here, and that it is an easy thing to get a situation in a store or counting-house, where there is little to do and good pay for doing it. They see that the clerks and shop boys who sometimes come among them in the country are all well-dressed and smart-looking fellows, with plenty of money in their pockets, which they spend as freely as if there was no end to it,—gunning, boating, hiring carriages to drive the girls about, &c. They think that these smart clerks must have a capital time of it in the city. They also now and then hear of a poor country boy who went into a city store and made a fortune in a very short time. Thus they get to envying the life of the town boys, and are uneasy and restless until they make the trial of finding out how difficult and dangerous such a life is. They see only the bright side of the picture.

"But all these boys are greatly mistaken. It may look very genteel and easy to stand behind a counter and do nothing but measure out goods, but it is close and confining labor nevertheless. If it is cleaner work than scraping up a barn-yard or currying down a horse, it is not half so wholesome. Besides, it is not an easy matter to get a situation in a store. Our city is full of boys born among us, whose parents find great difficulty in obtaining places for them. Many of these boys go into stores and offices without getting a dollar of pay. The privilege of being taught how to do business is considered compensation enough,—they actually work for nothing and find themselves. Our store-boys have no time for play. They have no green fields to look at or ramble over, nothing but dust, and mud, and hot bricks, with quite as much real hard work as the country boys, only it is of a different kind. What boy of the right spirit would desire to come here and merely run shop errands all day, learning nothing but how to go about town, when he could stay in the country, sure to learn how to get a living? Besides, a boy here is surrounded by temptations to ruin, and the poorer he is the more certain are they to lead him astray. Where one such does well, there are two who turn out thieves or vagabonds. We say to you, boys, stay on the farm where you are. If you are determined to come, don't come without you have some friend here who will receive you into his house, provide you with employment, and take care of you. But anyhow, wait until you are older, say twenty-one at least. Then, if you don't think better of it, you will be somewhat able to fight your way, for here it is nothing but fighting."

As the old man read this very deliberately, the boys listened with the utmost attention. "There!" said he, when he had finished, "that man knows what he says. He lives in the city, and understands about it. You see that he advises you exactly the same as I do."

This unexpected confirmation had a powerful effect on the minds of all the boys. It applied so directly to Tony's case, as to make him think differently of the chances of city life. As usual, he wanted to see the article for himself, and, beginning to read it aloud to the other boys, the old man left the barn, thinking that a little free conversation on the subject among themselves would do no harm.

#### CHAPTER V.

##### SOMETHING TO DO—THE VALUE OF PIGEONS—BUYING PIGS AND PIGEONS—THE OLD BATTLE GROUND AT TRENTON—HOW TO KEEP PIGEONS.

Activity, mental as well as bodily, is a necessity of boyhood. Nothing is more irksome for a lad than to be required to sit still for an hour, because that implies the doing of nothing. This longing after action, innocent in its direction, is to be encouraged, not repressed. The rollicking fellow who runs and leaps, and halloos, is as worthy of having his taste for amusement cultivated, as the quieter student whose minds is in his books, or the more calculating youth whose mind begins thus early to run on the profits of trade. And in all it should be promoted and encouraged. If checked by violence, or deadened by neglect or want of opportunity for indulgence, discontent succeeds. An urgent necessity of the boyish nature thus remaining ungratified, relief is sought in distant scenes or objects which promise to afford it.

These boys on Spangler's farm were therefore all anxious to be doing something for themselves. It was not mere work they were coveting, as of that they had sufficient, but some little venture that they would prize as being exclusively their own. Uncle Benny comprehended the case so fully, that he took the first opportunity to lay the matter before Mr. Spangler, and to urge upon him the necessity of giving the boys a chance. He said it would be a very small thing to let Tony keep a pig, while Joe could have a flock of pigeons, and Bill might have a brood of chickens. Spangler couldn't see the necessity for it, didn't know what the boys wanted with all these, said that every one of them would eat corn, and inquired where that was to come from; besides, where were they to get pigs, and pigeons, and chickens to begin with? The idea of cheering them on by a little aid did not enter his mind. He had never yet put himself out of the way to gratify his boys.

As to the corn which the new pets were to eat, the old man said, if he would permit them, they could raise it for themselves. They could easily plant and cultivate a couple of acres at odd times,—before breakfast or after quitting farm work; and if they used any of his while theirs was growing, they would replace it when their crop came in. Uncle Benny pledged himself that he would see to all this, that he would make the boys keep accounts of what they used, and indeed of all their other expenses, and that Mr. Spangler should lose nothing by it. As to the land they were to have, he told Spangler that he could spare it well enough; that he had now at least three times as much as he knew how to farm properly; that he had good boys about him who deserved to have some favors shown them; and wound up by warning him that there was great danger of all three becoming discontented, and disposed to leave him as soon as they could, unless their wishes were in some way gratified.

It was a very great struggle for Spangler to yield to proposals of a kind so new to him. But even his wife had less influence over him than Uncle Benny. If any other person had made a similar proposition, he would have silenced him by a flat refusal. Even as it was, it went very hard with him to consent to any part of it. He clung to the two acres the boys wanted, as if it was all the land he had; as, like many other men with large farms, he had never imagined that he had too much. But he objected strenuously to the boys being permitted to keep pigeons, as he said they would attack his wheat-fields, and eat more grain than their heads were worth. Besides, they would fly away for miles around, and the neighbors would complain of the damage they would be sure to do, the blame of which would all rest on him.

But the old man reminded him that, as to his wheat crop, he starved it so effectually that no flock of pigeons could make it much poorer. Besides, he said, it was a great mistake to suppose that pigeons on a farm, even when kept in large numbers, were in the habit of injuring the grain crops. He knew that farmers generally considered them as thieves and depredators, and so shot them when they came upon their grounds; but they condemned them ignorantly, and shot them unwisely, just as they did king-birds because they were believed to eat up their bees, or crows for pulling up their corn. The king-birds, that are frequently seen darting at the bees about a hive, eat up the drones only, as anybody could ascertain who would kill one and open his crop. So, where the crows pulled up one hill of corn, they devoured a hundred grubs. In short, he made use of the occasion to give Spangler a lesson on the history and habits of our common pigeons, that enlarged his knowledge of the subject very considerably. He told him that in England pigeons were protected by the law from being killed, by a penalty of ten dollars in our money, and that in foreign countries they had been raised for centuries as a source of profit. They are all fond of the seeds of weeds and of many wild plants, they are most industrious workers in devouring them. It is in search of such seeds that they are seen alighting in the fields at all seasons of the year, as well when no winter grain is ripening as when it is. They thus do the farmer a great service in keeping his fields clean, by preventing an increase of weeds.

The defence of this beautiful domestic bird which Uncle Benny thus made in reply to Mr. Spangler's objections quite disarmed him; he consented to all that was required,—the boys should have pigs, fowls, and pigeons, and two acres of ground on which to raise their food. This extraordinary concession was made just before Christmas. It took the boys so by surprise, and they



were so excited by the prospects before them, that, after going to bed, they talked it over during half the night. They had not been much used to receiving Christmas presents, but if they had, and had now being overlooked, they would not have missed them. Tony's gratification was so lively that it gave a different turn to his thoughts. He forgot all about wanting to try his luck in the city, and a new ambition sprang up to remain on the farm. A motive had been created, a stimulant had been set before him; there was a prospect of his doing something he had long desired,—make a beginning.

As Christ mas is everywhere a holiday, so it was on the Spangler farm. The boys, exuberant and gleeful, were in ecstasies when Uncle Benny told them that he intended they should go with him to the city, see the sights, and look after pigs and pigeons. The city was but a few miles away. They put the horse to the wagon, and drove off over a frozen highway which much travel had beaten perfectly smooth. Of course their whole conversation was about what they were to see, of their prospective pets, what they would do, and how much money they would make another year. Uncle Benny underwent a crossfire of questions, and listened to hopes and fears, most incessant and diversified. But what else could such hopeful boys be expected to indulge in? It was the first real jubilee of their lives, and the ride was memorable for them all.

They wandered over the city and outskirts looking into the pig-pens that abound, in search of an eligible porker with which to make a beginning. They went about leisurely, and of course saw a great variety, some in nice clean pens, and some in pens so foul that it was evident the dirty pigs were not doing nearly so well as the clean ones. All this was carefully pointed out to the boys, and they did not fail to remark the difference. At last they came to a man who had a number of what he called the Chester County Whites,—fine round fellows with short legs, short ears, short faces, and long bodies.

This was the kind Uncle Benny had been seeking for. The boys themselves acknowledged that they looked nicer and fatter than any others they had seen. As all were now deeply interested in pork, the boys bristled up and entered into these matters with zeal; and their opinion being asked by the old man which pig, of all they had seen, they would prefer, they agreed upon the Chester Counties. So a young sow was purchased, which would drop a litter of the pure breed in about two months. For this purchase Uncle Benny advanced the sum of thirty dollars out of his own pocket, the money to be refunded to him by sale of the pigs that were to come, the seller agreeing to deliver the sow at Mr. Spangler's farm the following week, so as to allow time for putting up a suitable pen.

This purchase made, they set out to inspect the hen-roosts and pigeon-houses. It was concluded not to buy any chickens just then, as Mrs. Spangler had quite a number already on the farm, and Uncle Benny thought there would be danger of disputes arising with her about eggs and other matters, and he did not choose to run the risk of ruffling her feathers. But he advanced four dollars to pay for six pairs of pigeons, which he was to receive back from the increase of the flock. He thought it better to lend the money to the boys than to make them a present of it, as it would rest on their minds as a sort of weight or obligation, teaching them the necessity of care and economy to clear it off. The pigeon-dealer put the birds into a roomy box with a covering of slats, and the party started for home.

The boys were at work early next morning, under Uncle Benny's direction, fitting up a pigeon-house. There was a large loft over the wagon-shed, where they resolved it should be. It had a good, tight floor, to which they could ascend through a trap by means of a step-ladder. The front was open, but this they soon made all right by nailing up laths sufficiently close to keep the pigeons in, but so far apart that they could put out their heads and survey the premises, so as to become perfectly familiar with them before being allowed their liberty. Part of this lattice-work projected two or three feet beyond the front, thus affording to the birds a view, from two sides and the front, of all that was going on out of doors. They then provided nests by making rough boxes about fifteen inches square and four inches deep, which they pushed back under one of the eaves, giving the pigeons a chance at the seclusion which they invariably covet when ready to lay and hatch out their young. These fixtures were made of old stuff they found lying about. But the great help

toward doing even this was found in the old man's tool-chest. They could have done very little without him and his tools.

When these hasty but sufficient preparations had been made, he required them to put into the loft a low earthen pan, of large size, filled with water, for the pigeons to bathe in, as well as to drink from; for pigeons are thirsty beings, and delight in water. No creatures enjoy drinking more heartily. They plunge the head in nearly up to the eyes, and take a full draught at once, not slowly and deliberately, like chickens. He also fitted up for them a feeding-trough about two inches deep, which he covered with a wire network, so as to keep the pigeons from getting into it, but with the meshes large enough for them to put in their bills and take out the food. This would keep the latter free from dirt, as well as prevent waste. Then over one corner of the loft he caused to be spread at least a bushel of fine gravel, broken lime, and pounded bricks, to assist digestion and furnish material for the formation of egg-shells. Beside this there was a supply of common salt, an article that is indispensable to the health of pigeons.

The making of all these preparations was of course a great affair for the boys, but it was surprising how heartily they carried them through. The simple fact was, their sympathies had been enlisted in a cause exclusively their own. They therefore kept to their work as energetically as if sure to get rich by it. Indeed, while thus engaged, there were a great many conjectures indulged in as to when the pigeons would begin to lay, how many eggs would be hatched in the course of a year, and whether they should take the squabs to market and sell them, or whether it would not be better to let them grow up, and thus increase the flock to a large size, before they began to sell any. There was a general impatience among them to hurry up the laying, and have it begin immediately. If that important operation could have been performed by the boys themselves, there is no doubt but they would have cheerfully undertaken it. It is probable that, if it had been in their line to do the hatching, they would have undertaken that branch of the business also.

Everything being thus ready to receive the pigeons, they were let loose in their new quarters, there to become reconciled to the strange scenes around them. The food that had been taken from the corn-crib was carefully measured, and entered in an account-book that Uncle Benny had provided, so that all should know what was the cost of keeping pigeons, and that the boys should be taught account-keeping, as well as the importance of having a written record of their doings. Besides these advantages, it was necessary for the satisfaction of Mr. Spangler. He had thought pretty well of their keeping a pig, but he had a very poor opinion of the pigeons, notwithstanding the luminous disquisition of Uncle Benny as to their being an advantage on a farm. He said from the first that they would eat their heads off, and that he knew he should have to foot the bill. It was therefore highly desirable to know exactly the cost of feeding them, if it were only to satisfy him. As the responsibility of the whole enterprise rested on Uncle Benny, he was determined to see that no part of it was neglected.

The pigeons very soon became reconciled to their new lodgings, as pigeons always will be when they have roomy quarters, with plenty to eat and drink. The greater the number, the sooner they accept a new place as their home; and, as a general rule, the larger the flock the better it thrives, as pigeons are eminently social in their natures. A solitary pair, put into a new house, will be very likely to leave it and unite with a large flock established elsewhere. To do this they will travel many miles. But as in this case the boys had procured a dozen, there was sufficient companionship to make any home agreeable that was as well attended as this was. They were constantly seen in the projecting lattice-work in front of their quarters, enjoying the sun, stretching their wings, and looking all over the premises, as if wanting to make acquaintance with them.

(To be Continued.)

Farmers in Pike County, Ohio, are burning their oats to protect wheat from the army-worm. Near Circleville a large field of barley has been entirely destroyed.

SALT YOUR HAY.—You can store it in a green state. By so doing there is not so much danger from spontaneous combustion. The cattle eat it better, and it will weigh lighter.

#### Tarring Fences and Shingles.

We note that the old controversy about tarring or painting shingles and fences is being revived again, on the principle we suppose that as an old generation passes away the new one wants to learn wholly for itself what it wants to know, and that some people are still resorting to it. It ought, however, to be generally known by this time that not moisture only, but heat and moisture, either or both, are the agents in the decay of woody matter. Most persons seem to think it is moisture alone, and hence all that is required is to coat the wood with some substance that will keep the water out. To be sure, they know that heat, when it is up to what we know as the burning point, will destroy wood, but they seem to forget that even when not burning heat is destructive only in a less degree. Any black substance, therefore, which attracts heat, though it may keep out the other destructive element, water, adds to the destructive agencies at work on the wood, and should be avoided wherever duration is an object.

It needs no understanding of these laws, however, to know that tar or any black substance tends to rot wood away much faster than wood that has had nothing at all done to it. A fence tarred and exposed to the full sun, as any observer knows, soon crumbles away. In a few years the wood is like an over done pie-crust. And then all know how long a mere whitewashed fence lasts. Yet there is no preservative character of much account in lime. Every rain goes through it into the wood, but it is the white color, which rather turns away the heat than attracts it, which is in that case the great agent which preserves it so long.

In all discussions as to the preservation of wood by paints or coatings, therefore, we see that the color of the washes or paints is an important point in the argument. As for tar, it is the very worst thing that could be used where there is exposure to the sun. Under ground, or where there is no heat for it to attract of consequence, it is another matter, and does possess more or less preservative power.

Careful estimation has placed the probable product of the coming season at 4,000,000 cases of tomatoes, or two cans of tomatoes for every man, woman, and child in the United States.

STRAWBERRIES IN NORTHERN LATITUDES.—Curiously enough, strawberries and currants reach a perfection unknown in more hospitable latitudes, a Marquette strawberry resembling in size a Seckel pear, and in flavor a wild strawberry. This is owing, no doubt, to the fact that in northern latitudes—Marquette is about as far north as Quebec—the few summer days have from 18 to 20 hours of sunlight and afterglow, and vegetable growth is virtually uninterrupted by darkness.

The Condensing Company at Wassaic, N. Y., pay out about \$1,000 a day for milk. This, says "Oblong," of *Dutchess Farmer*, attracts to the business nearly all the farmers of the vicinity; good prices stimulate to heavy production; all oats and corn raised is consumed, and bran, meal and other feed purchased; this in its turn insures a great quantity of rich manure, which if saved and properly applied must improve the quality of the soil. Still there is a shortsighted disposition to overstock, which militates against the best success. Another indication for good times for all concerned is the prevalent liberal rate for hired labor—\$22 per month and board to first-class hands, a result partly of the great expanse of almost free fertile acres at the West. "Cheap land gives a high reward of labor. Land owners in the old States, if they wish to sell, are put to a disadvantage."

Grapes first coming in bearing should not be permitted to perfect large crops of fruit while young. It is excusable to fruit a bunch or so on a young vine, "just to test the kind," but no more should be permitted till the vine has age and strength. Vigorous growth, and great productiveness, are the antipodes of the vegetable world. Encourage as much foliage as possible on the vines, and aim to have as strong shoots at the base as at the top of the cane; this can be done by pinching out the points of the strong shoots after they have made a growth of five or six leaves. This will make the weak ones grow stronger. Young vines grow much faster over a twiggy branch, stuck in for support, than over a straight stick as a trellis, and generally do better every way. Where extra fine bunches of grapes are desired, pinch back the shoot bearing it to about four or five leaves above the bunch. This should not be done indiscriminately with all the bunches. Too much pinching and stopping injures the production of good wood for next season.



### The Family Circle.

"Home, Sweet Home."

#### A Fashionable Marriage.

When Miss Parkhurst, daintily attired in pale blue, enters the drawing-room, she finds the Countess in conversation with a tall, dark man whom she rightly guesses to be the Earl of Windholm. Lady Strathmere greets her affably and introduces her to Geraldine's fiancé. Strenuously as her ladyship opposed the coming of her daughter's friend, and much as she would have liked to prevent it, still, having invited her, she acts as a lady would, and treats her as an honored guest. Annie thinks Lord Windholm decidedly good-looking, though his expression is far from pleasant, and his eyes are cold and piercing. He makes a few commonplace remarks to her, in the middle of which Lord Strathmere enters, followed shortly by the butler, announcing dinner. The Earl of Strathmere is the very opposite of his stately wife, being a portly, good-tempered looking man, with honest blue eyes and a weak, irresolute mouth. "Where is Geraldine?" he says, after greeting his son-in-law elect; "another of those tiresome headaches, eh?"

"I think she is quite well," the Countess answers coolly. "Geraldine never hurries herself in warm weather."

Lord Windholm smiles disagreeably, and mutters something about teaching her punctuality. At that moment she enters with a few words of apology for being late, and they repair to the dining-room. Another of Geraldine's habits in warm weather is to eat about sufficient to feed a canary, so that it is with a little sigh of relief she rises from the desert-table to follow her mother to the drawing-room. The long, low windows are open to admit every breath of air, but the heat is still oppressive. "Annie," says Lady Geraldine, looking intently at the sky, "is not that a little cloud over there? Surely there is promise of rain at last?"

"Yes, it will rain soon," replies Miss Parkhurst. "See, the curtains are moving. It is the first sign of a breeze we have had to-day."

The girls stand perfectly still, watching the clouds gathering. The heat becomes intense, the sky is black; then a great drop of rain falls, followed quickly by another, and another. In less than a minute a deluge is coming down. Lady Geraldine stands perfectly still, heedless that the rain is splashing on her from the plants and ferns in the window. Annie has wisely retired.

"Are you taking a shower-bath under novel circumstances?" asks Lord Windholm, coming up to his lady-love unnoticed by her.

She starts slightly. "Is it not refreshing! But how wet I am! I was so absorbed in watching the welcome shower that I did not feel its effects upon myself."

"When you have finished rain-gazing perhaps you will kindly favor us with a little music," continues Lord Windholm.

"I shall be delighted, when I have had my dress changed." And she is turning away, when her hand is seized by her lover.

"What have you been doing during my absence, Geraldine?"

"About the same as usual. Driving, riding, walking, reading, and sleeping. Have you any particular reason for asking?"

"No, except that you are pale and preoccupied. It vexes me to see you looking white and thin."

"That is a pity, as I certainly have a predisposition that way. It is a comfort to think one can resort to art if nature proves fickle. By such assistance I may be able yet to maintain your dignity, Guy."

"Do not be sarcastic; I am quite satisfied with you," returned Lord Windholm. "There are only one or two little things I should like to alter."

Lady Geraldine makes a little mocking bow of pretended humility, and quits the room.

The church of St. Nicholas is thronged from the pulpit to the door as early as ten o'clock on the morning of the marriage of Lady Geraldine Treherne to the Earl of Windholm. The day was announced in most of the fashionable papers, and a vast number of persons are collected to see the wedding of the beauty of three seasons. Admission to the body of the church is granted only to the lucky possessors of tickets, but at last even these have to be turned away, as the church is full.

Gathered round the altar are the wedding guests, a goodly number of the highest members of the aristocracy, chatting and buzzing in undertones while they wait for the bride. The eight bridesmaids, in shimmering dresses of ruby and cream color—an elegant Parisian compound—hover near the door. Presently there is a little stir. A gentleman advances and makes a sign to Lord Strathmere, who hastens down the aisle to the church door, where a carriage has just stopped. Lady Geraldine, followed by the Countess, steps out, takes her father's arm and walks slowly up the aisle amid a hushed murmur of admiring excitement. She wears the regulation white satin and orange blossom, and the exquisite lace veil covering all is fastened with a large diamond star.

Very pale, very beautiful, perfectly collected, is the fair bride. She does not betray the least nervousness through the whole of the ceremony, and when it is ended, and she walks through the crowds of people, leaning on her husband's arm, with the strains of the "Wedding March" rolling through the church, she acknowledges the raised hats of the men by a slight bow and smile. Many a fair girl followed her with admiring, envious eyes. What more could earth hold for her? Young, rich, beautiful; married to a man of fashion, and an Earl; surely she had all that heart could desire. Who would not envy her bright fate? Ah, who indeed!

The breakfast is over; the last health has been drunk, and Lady Geraldine rises to go and change her dress. In half an hour she and her husband will leave the house. They are

going to spend the honeymoon in Yorkshire, where Lord Windholm has an estate. In her dressing-room Lady Geraldine finds her maid.

"Annette," she says, quietly, "go out and leave me quite alone for five minutes, then you may return. Do not allow any one to disturb me—not even the Countess."

"Very well, my lady," replies the well-trained servant. At the end of the five minutes she returns, and sees Lady Geraldine lying in a heap by her davenport, which is open. For a moment Annette is paralyzed with terror, but being a sensible girl, she does not rush out of the room and scream, but quietly raises the lifeless form. Her own face blanches when she sees a tiny stream of crimson on the rich satin dress. Has Lady Geraldine broken a blood-vessel? She chafes the cold hand, and applies strong scent to the marble forehead. With all her efforts it is quite five minutes before the eyes open and Lady Geraldine gives a shuddering sigh. "Thank Heaven!" ejaculates the girl devoutly. "Are you better, my lady?"

"Yes, what is it? Did I faint?" and the young lady tries to rise. Then, catching sight of the blood on her dress, she says: "Ah, I remember; I went to my desk for something, when I felt dizzy and fell."

"But the blood, my lady?"

"Yes. I ruptured a tiny vessel a few years ago, and if I am over excited or fatigued the blood comes from my mouth."

"You will not be able to go out," says the girl.

"Nonsense, Annette; you must dress me at once. But first I must have some wine; I feel so weak. Go and get some, and mind you tell no one of this."

"But, my lady—" the girl expostulates.

"Annette, I wish it I ask you as a particular favor not to mention my faintness; I don't wish to alarm them unnecessarily. Fetch the wine and then come and dress me quickly."

Annette obeys unwillingly. When she returns the davenport is closed and Lady Geraldine divested of her dress. The wine and the exertion of a hurried toilet bring back a little life into the bride's white face. As she makes her adieu with calm, smiling ease, no one guesses how the sight of a withered flower has well nigh robbed her of life.

"Good-bye, Annie," she says, trying not to see the tears in her friend's eyes. "I shall want you to come and stay with me by and by. Think of me sometimes, dear, and write to me when you have time."

#### III.

"Who dines with us this evening, Geraldine?" asks Lord Windholm, without raising his eyes from the paper he is reading. His wife is engaged with her letters, so the question has to be repeated.

"No one, for a wonder. Neither have I arranged to go anywhere. It is more than a month since we have had a thoroughly quiet evening I feel sure."

"And very proper too. You know I object to 'quiet' evenings, and thoroughly dislike a tete-a-tete dinner. It was inconsiderate of you to arrange so badly."

"I don't know that I arranged it at all; it is more an oversight than anything else. Personally I am rather glad, but I do not wish you to be victimized; you can dine at your club."

"Thank you, but I have no intention of doing so. I shall dine at home."

"Very well," answers Geraldine good-humoredly. "and if you will not be bored I will sing you some new songs I have."

To this Lord Windholm makes no reply, so Geraldine returns to her letters. These occupy her until breakfast is ended, and then she goes to prepare for her ride with Lord Windholm.

They ride together every day, and sometimes it is the only hour in the twenty-four Geraldine spends with her husband. He is very particular about this; whether from pride in his wife's horsemanship or because it gratifies him to see the universal admiration her beauty creates. Geraldine does not seek to analyse; she is quite indifferent upon the point.

It is a beautiful June morning, bright and sunny, but not overpoweringly hot. The park is crowded with equestrians and pedestrians, and also a good sprinkling of carriages. The fair young Countess of Windholm is queen of the present season as she was of the last. She is at her best on horseback. The exercise brings a wild-rose tint to her usually white face and a brighter light to her eyes.

The graceful curves of her slight figure bear well the severe outline of a habit, while the plain round hat, guileless of a veil, cannot in the least detract from the beauty of the high bred, patrician face. The young Countess is thought cold and haughty by many, especially her own sex. Yet none can deny that her manner is pleasant and agreeable, and her conversation kind and affable. But she has no dear "bosom-friend" in whom to confide all her secrets. Pleasant to all her numerous acquaintances, she makes a friend of none, for which she is censured. But few care to neglect the Countess of Windholm. Her high birth and connections, her wealth, position, and popularity, make her a person to be sought after.

Through bows and smiles the Earl and Countess return to Prince's Gate. Lady Windholm goes to her room and her husband to his club. Late in the afternoon the former drives alone, returning only in time for dinner.

Dinner is over, and Lady Windholm sits in the drawing-room alone. She holds a book in her lap, but presently it falls to the floor—she is asleep. The clear, soft light falls on her upturned face as her head reclines on the satin cushion. There is very little difference from the Geraldine of a year ago, except that she is sligher, and there are weary little lines round the lovely mouth. In her sleep the pretty red lips quiver slightly. She sleeps quietly on. The great house is perfectly quiet, and the air of the room sleep inducing with the redolence of japonica and white roses.

With a start Lady Windholm awakes presently, smiling to think in what an unusual way she has passed a couple of hours. She wonders where her husband is. Had he come in while she was asleep and left without disturbing her? "Scarcely," thinks Geraldine, as she seats herself at the piano.

After playing one or two things in a dreamy, sleepy way, she rises and goes to the dining-room. It is empty. She is about to return, feeling sure her husband has gone out, when she remembers he may be in the smoking-room. Thither she goes, her silk train making a slight rustle as it trails along the broad passages. Her hand is almost on the door, when it is opened from the inside, and her husband's valet appears, with a red, embarrassed face. He tries to ignore Lady Geraldine's intention of entering the room by attempting to close the door after coming out, but the lady's soft voice arrests him.

"Stay, Parsons. I am going in. Is Lord Windholm there?"

"Yes, my lady," answers the man with hesitation; "but—"

he—is not very well. I think, my lady, you might disturb him by going in."

"Allow me to pass," is all Lady Geraldine says, and Parsons draws back immediately.

The Earl of Windholm is lying full length on a lounge, his face pale and his eyes bloodshot. He mutters incoherently as his wife enters, and then closes his eyes and falls asleep immediately. No need to ask the nature of his lordship's illness. Geraldine has known all along of the unhappy vice to which her husband gives way, but it is the first time she has seen him under its influence. With a white, haggard face she quits the room, and the sight has done more than shock her.

(To be continued.)

#### Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES.—I have just gone through my great budget of letters from all my children for another month; but I have not heard from so many as usual, in consequence, I presume, of the puzzles being a little harder, for I am reminded in most of the letters "that the puzzles were awful hard." Now, you must not give up in that way, but persevere and you'll succeed. Some one asks for a story, so I will give you one. Many boys and girls may have heard these words: "Hay-foot, straw-foot," but very few young folks—or old ones either—know how the terms originated. During the war of 1812, there was a great deal of drilling and training among the militia-men all over the country, especially in the large cities and towns where the principal recruiting stations were situated. Many of these would-be soldiers were from the lower classes of the country, and these of course knew nothing at all about marching in military fashion. They could walk far enough, some of them, and work as hard and bear as much fatigue as any soldier in a regular army; but they walked as they pleased, and had no idea about such a thing as keeping step. It is even said that there were fellows among them who did not know their right foot from their left, and who were therefore continually getting themselves and their companions into disorder by mixing up their legs, that is, moving out their right leg when the officer who was drilling them called out "left," and the other leg when he called out "right." To make these men understand exactly which leg was meant when the officer gave his orders, a curious plan was devised. Around the right leg of every man, just below the knee, was tied a wisp of hay, while a wisp of straw was tied around his left leg. Now, these country fellows knew very well the difference between hay and straw, and so when ranged in line and the officer gave the word to march, and called out, "Hay-foot! Straw-foot! Hay-foot! Straw-foot!" each one of them knew exactly which foot he must put forward. The regular soldier who may have been drilling at the same time probably smiled, if they did not dare to laugh, at those queer-looking men with their hay and straw bound legs, but the fathers and sisters of the recruits, if any of them chanced to come to town to see their sons or brothers drill, doubtless thought the affair a fine military display, and that Jeremiah or Caleb would be a General yet, if the war lasted long enough. The prize for the illustrated rebus is given to Louie Meston, of Griffin's Corners P. O., Ont.

UNCLE TOM.

#### PUZZLES.

NO. 1.—CHARADE.

My first doth oft with marshal voice arouse the peaceful mind, and nights and warriors issue forth to follow his command; my second never cuts his teeth, yet they can out I know; a city on the continent my whole will to you show.

E. E. RYAN.

NO. 2.—RIDDLE.

My first and my last are the same, My second and my fourth are the same, My third is five times my second, My whole pertains to a city.

A. J. TAYLOR.

No. 3—DOUBLE ACROSTIC.

- 1—A pair.
- 2—To possess.
- 3—At a distance.
- 4—A planet.
- 5—A German river.
- 6—To swing to and fro.

My initials and finals read downwards will give the names of two Canadian rivers.

A. J. TAYLOR.

No. 4—ENIGMA.

I am composed of eight letters.  
My first is in pan but not in dish.  
My second is in money but not in fish.  
My third is in Clara but not in Maud.  
My fourth is in Ida but not in Claude.  
My fifth is in little but not in small.  
My sixth is in height but not in fall.  
My seventh is in Charles but not in Harry.  
My eighth is in Sarah but not in Carrie.  
My whole is what you hear talked about every day.

ELLA McNAUGHTON.

No. 5—HIDDEN COINS.

- 1—The arms of that doll are too long.
- 2—Frances, who don't you come to see me?
- 3—Well, I rarely go out now.
- 4—Have you heard from Arkansas lately?

C. M. FINCH.

No. 6—ENIGMA.

I'm smooth and clear and sometimes cut,  
And often on the table put;  
Take off a letter and you'll find,  
What to love I'm much inclined;  
Take off another and you'll see,  
A name for neither you nor me.

LOUIE.

No. 7.—ANAGRAM.

Ti meese nyfun et aeho a rade cenul one owm  
ew cervn yeah nese tesimosem I kithn ti si teru ubt  
tofne ti losko kiel a redma.

Answers to June Puzzles.

- 1—There is no flock however watched and tended,  
But one dead lamb is there;  
There is no fireside howsoever defended,  
But has one vacant chair.  
2—I B I S  
B O O T  
I O T A  
S T A R
- 3—Thames, Severn.
- 4—OTTAWA  
T H O S E  
T O O K  
A S K  
W E  
A
- 5—Vassal.  
Idaho.  
Elgin.  
Newfoundland.  
Navarino.  
Aberdeen.
- 6—Spawn, pawn, awn, wan, an.  
7—C  
R A T  
W I T T Y  
R A T A F I A  
C A T A M O U N T  
R E M O V E D  
S P U R N  
A N T  
T
- 8—(1)—Severe, ever.  
(2)—Wheels, heel.  
(3)—Lapel, ape.  
(4)—Heart, ear.  
(5)—Dairy, air.
- 9—Plenty.
- 10—Plate, late, ate, eat, tea.

Illustrated Rebus.—Liars are not to be believed out of respect to their affirmations.

Names of Those who have Sent Correct Answers to June Puzzles.

Charles Finch, Morley S. Pettit, C. Gertie Heck, H. B. Herrington, W. H. Bateman, Minnie Legart, Charlie S. Husband, Maggie Miller, C. G. Keys,

A. J. Taylor, Esther Louisa Ryan, Richard Kingstont, H. W. Mackenzie, Ella McNaughton, Samuel Albright, Minnie G. Gibson, Carrie Van Norman, A. Philips, Charlie Johnston, Carrie Cowper, Willie Morgan, Jas. F. Lee, Tom McGurdy, Minnie McCready, Annie Cousins, B. G. Haycroft, Elinor Simpson, Claude Shore, Gertie Hammond.

Minnie May's Department.

MY DEAR NIECES.—Having lately read an article on "maidenhood," I give you a few extracts, varied somewhat from the original, which I hope will interest some, if not all of our young readers.

We feel as if we were entering a sanctuary when we approach the subject of Christian Maidenhood, yet it is a subject on which the broad daylight of every day life must be permitted to shine freely if we would consider it aright. We want our maidens to be pure as the early dew, bright as the morning and fresh as the mountain breeze, and yet to be useful and helpful members of society, not creatures of dreamland.

Natural modesty of thought and feeling is a most indispensable quality; a modesty that shines forth from her eyes, tinges her cheeks, and is seen in every fold of her dress, which becomes woven into her character, forming a shield, thus guarding her, unconsciously to herself, perhaps, from all companionship, books or places that might lead her into danger.

Mothers and teachers should endeavor to instill this quality into their girls from their earliest years. This modesty does not lower a girl either in her own eyes or those of others, but leads her on to a gentle, graceful pride, without which she is incomplete.

How greatly the tone of feeling and thought is elevated in young men, especially brothers, when brought in contact with her who possesses the true qualities of maidenhood. A girl must not fail to exact a certain amount of reverence in word and outward behaviour, from every man with whom she is in daily intercourse, even from a brother.

Graciousness is another essential attribute of Christian maidenhood; a sulky girl, altogether unlovely and out of place, or one with short, haughty words always on her lips; instead she should be sweet tempered, and ready as far as lay in her power to oblige in small matters as well as great, and to minister to the comforts of others. Her bright looks should be the very sunshine of her home, without which father, mother and brothers feel cold and lost; so, dear girls, remember, with thoughtful happiness that one of our chief missions is to bring joy and comfort wherever we go, and that this can never be done so well as by attending to the small wants, wishes, worries and troubles of those with whom we live. These may seem, at first sight, trivial, prosaic things, but out of such things, cared for in a tender, lofty, spirit, is made life's fullest music.

Do not lower your maidenhood by adopting the habits, manners and talk of men. The slang expressions, or attire which has any approach toward "manishness," should be quietly and decisively avoided by all girls in their walk through life. It is wonderful the influence a girl has among her companions if she sets her face firmly against those things; her example would help to put away such things and practices among us, for they are not admired by men as many suppose, but instead, are ridiculed and pitied by all who are endowed with a grain of sense.

Never be hasty to leave your maidenhood for the married state; it is lowering and shows lack of female delicacy to make marriage the one object of your life, asserting it, as some do, with cool and unblushing boldness; such conduct is utterly beneath the dignity of maidenhood. There are many

beautiful, useful and ennobling works which may be undertaken by our girls in their maiden years, therefore they cannot say that marriage is their only alternative. Marriage is one of God's highest and holiest institutions, therefore what can be more contrary to His will than marrying for money; let no christian give away her hand, and no girl who has been brought up to serve her Master will give herself away to one with whom she cannot pray and speak of high and sacred things.

Let your maiden days be filled with active employment; do not allow your life to be one round of amusement; now is the time for laying up stores of knowledge for future use; spend a portion of each day in useful reading, and above all, prayer and Bible reading should never be neglected.

Let our girls strive to make the world purer by their influence, endeavoring daily to draw closer and closer to Him in thought, word and deed, that their earthly maidenhood shall add a radiant jewel to their heavenly coronet.

Thus, dear nieces, may you all endeavor to be; even the honest trial will be blessed, and be assured that if your early years are spent in endeavours to lead a good, pure life, that you will never regret it, and will be happier and more prosperous in the years to come.

MINNIE MAY.

Answers to Inquirers.

HE CRDE MALIS.—You do not state whether you live in the country or town, but if in or near a town where such things are in demand, could you not make a market garden profitable, for in such work your boys could be of great assistance, and you might also keep fowls; both of these are carried on quite extensively by females. Perhaps you could make a little by needlework, either plain or fancy, if you are handy in that way. We can hardly advise as we do not know the particulars of your circumstances.

HELEN.—The safest way to remove black-heads is by rubbing the face at least two or three times a day with a flesh brush. This impurity is caused by the pores of the skin being closed so that the blood cannot circulate freely next the skin; thus the rubbing will open the pores. We do not know that in using this remedy there is any dent left in the skin; if so we know of no way to remove them. We cannot recommend any particular diet, only advise you to avoid pastry, hot bread and all rich food; eat plenty of lean juicy meat, no fat or butter. Do not be afraid to eat plenty of nice, ripe fruit during the season.

H. B. HERRINGTON.—In sending an illustrated rebus must it be in characters? ANS.—Yes.

LUCY E.—1. Please give me a recipe for pickling red cabbage? 2. A recipe for preserving rhubarb for winter use? 3. A simple recipe for making grape wine for family use? ANS.—1. Cut the cabbage in three slices crosswise, spread in layers in a stone jar with salt over each layer, let stand two or three days, then put two spoonfuls each of whole black pepper, allspice, cloves and cinnamon in a bag, and scald them in enough vinegar to cover the cabbage, pour these over it and cover tight for a few days before bottling. 2. Peel one pound of rhubarb and cut it into pieces of two inches in length, add three-quarters of a pound of white sugar, and the rind and juice of one lemon, the rind to be cut into narrow strips. Put all into a preserving kettle and simmer gently down until the rhubarb is quite soft, take it out carefully with a silver spoon and put it into jar, then boil the syrup a sufficient time to make it keep well—say, one hour—and pour it over the fruit when cold, put a paper soaked in brandy over it, and make the jars perfectly air tight. 3. Take 20 pounds ripe, freshly picked and selected tame grapes, put them into a stone jar and pour over them six quarts of boiling, soft water, when sufficiently cool to allow it, squeeze them thoroughly with the hand, after which allow them to stand three days with a cloth thrown over the jar, then squeeze out the juice and add 10 pounds of crushed sugar, and let it remain a week longer in the jar, then take off the scum and leave until done fermenting, then strain and bottle tight, and lay the bottle on the side in a cool place.

### Cats as Pointers of Poisonous Odors.

An experiment tried recently by a woman in Hoboken to detect the presence of sewer gas in her rooms was a topic of conversation among the Sanitary Inspectors at the rooms of the Board of Health yesterday. The woman had noticed an offensive odor in her parlor, and she went to the agent of the house to request that a plumber be sent to examine the drainage pipes. The agent told her the plumbing in the house was perfect. She went home and called in some neighbors, who thought sewer gas was escaping from the waste pipes. Acting on the suggestion of a friend, she sent out for some oil of peppermint and poured it into a stationary wash-basin on the third floor. From the basin, the oil passed down through a waste pipe behind a closet off the parlor. Very soon, the odor of peppermint prevailed in the parlor. The woman then went to the agent again, and told him she was convinced that there was a break in the waste pipe on the first floor of the house, at the same time telling him of her experiment with oil of peppermint. The agent refused to send a plumber, declaring that the odor of peppermint was so penetrating that it would soon fill a building. After studying over the situation for a time, the woman purchased some oil of valerian and poured it into the wash-basin up-stairs. She then borrowed from her neighbors two able-bodied cats and placed them in the parlor. The cats sniffed the air in the room as if it were agreeable to them, and they both went toward the door of the closet. When the closet door was opened for them, they went in immediately and sprang upon a shelf, where they remained, purring and manifesting unmistakable delight. The woman then went to the agent's office and related what she had done. Although incredulous still, the agent sent a plumber with directions to tear away the lath and plaster in the closet at the point where the cats had rested in their hunt for the valerian. The plumber found behind the shelf the waste pipe completely disjointed. The break in the pipe was large enough to allow an unwholesome amount of sewer gas to escape into the house. Some of the Sanitary Inspectors said yesterday that the experiment was new and decidedly ingenious. They thought that cats might be used in a similar manner in this city to more advantage than in Hoboken. By employing their household pets as pointers, it was said, residents of the city might save themselves from illness from poisonous gases, and also save the cost of employing sanitary engineers to examine the drainage in their houses. — [Tribune.]

### A Talent for Conversation.

A talent for conversation has an extraordinary value for common, every-day life. Let any one who has this gift enter into a social circle anywhere. How every one's face brightens at his entrance! How soon he sets all the little wheels in motion, encouraging the timid, calling out unostentatiously the resources of the reserved and shy, subsidizing the facile, and making everybody glad and happy!

To converse well is not to engross the conversation. It is not to do all the talking. It is not to do all the talking. It is not necessary to talk with very great brilliancy. A man may talk with such surpassing power and splendor as to awe the rest of the company into silence, or excite their envy, and so produce a chill where his aim would be to produce heat and sunshine. He should seek the art of making others feel quite at home with him, so that no matter how great may be his attainments or reputation, or how small may be theirs, they find it insensibly just as natural and pleasant talking to him as hearing him talk.

The talent for conversation, indeed more than anything else in life, requires tact and discretion. It requires one to have more varied knowledge, and to have it at instant and absolute disposal, so that he can just use as much or just as little as the occasion demands.

### Fashions.



Fig. 1 shows a very pretty style of walking dress, the waist being box-pleated and trimmed with a fancy braid about quarter inch wide. The overskirt has pointed front and frill back. The skirt trimmed with a double box-pleat, headed with a braided fold.



Fig. 2 is a pretty dress for little child from 2 to 6 years of age. The collar and sleeves are trimmed with lace, and the skirt is finished by a sash to match material, or any contrasting color; 3/4 yards of material will make a medium size.

### Wit and Humor.

A small boy who was playing truant the other day, when asked if he wouldn't get a whipping when he got home, replied, "What is five minutes' licking to five hours of fun?"

Not long since a family moved into a village out West. After a week or so a friend of the family called on them and asked how they liked the locality. "Pretty well," "Have you called on any of the neighbors yet?" "No; but I'm going to, if there's any more of my firewood missing."

An absent-minded New Yorker has been so much in the habit of sending his children to their mother when they preferred any request, that the children after a time took to going directly to her, as to headquarters. One day the elder son, aged six, wanted to look at a "picture book" belonging to his father, and asked permission of his mother. She replied, "Go and ask your father." "Why," said the boy, in astonishment, "is he boss now?"

One afternoon, a stranger, observing a stream of people entering a church, approached a man of gloomy aspect, who was standing near the entrance, and asked, "Is this a funeral?" "Funeral, no;" was the sepulchral answer; "it's a wedding." "Excuse me," added the stranger, "but I thought from your serious looks that you might be a hired mourner." "No," returned the man with a weary, far-off look in his eyes, "I'm the son-in-law of the bride's mother."

"That man is a phrenologist, Pat." "A phat?" asked Pat, puzzled. "A phrenologist." "Phat's that?" "Why, a man that can tell, by feeling of the bumps on your head, what kind of a man you are." "Bumps on me head, is it?" exclaimed Pat. "Bagorra, then, I should think it would give him more of an oidea phat kind of a woman me wife is!"

In the whiskey ring investigation at Washington, Thursday, the Editor of *The Critic*, in reply to a question as to why he had mentioned the names of several prominent journalists as having been bribed by the whiskey men, stated that "it was a joke." There could be nothing more side-splitting than this, except the sight of somebody hitting the Editor of *The Critic* with a club. — [Chicago Tribune.]

SIR,—Would you please inform me through your valuable paper where I can procure a fruit evaporator, and what is the cost?  
W. G. O., Huntley.

[Consult our advertisement columns.]

### Magical Music.

This is a game in which music is made to take a prominent part. On one of the company volunteering to leave the room, some particular article agreed upon is hidden. On being recalled, the person, ignorant of the hiding-place, must commence a diligent search, taking the piano as his guide. The loud tones will mean that he is very near the object of his search, and the soft tones that he is far from it. Another method of playing the same game is for the person who has been out of the room to try to discover on his return what the remainder of the company desire him to do. It may be to pick up something from the floor, to take off his coat, to look at himself in the glass, or anything else as absurd. The only clew afforded him of solving the riddle must be the loud or soft tones of the music.

Charles French asks: I have two valuable, pure white fantail pigeons which will not lay eggs. The hen builds a nest and sets two weeks, then stops setting for a time and then builds another nest and sets the same period of time. Nothing could possibly take the eggs, because I have them in a secure place.

[You had better separate your fantails and after a few days pair them with fresh birds.]

**Deacon Day and the Highway Cow.**

BY EUGENE J. HALL.

The best o' bein's will hev their cares—  
There's alwus sumpthin' to cross our way,  
To worry an' fret us in our affairs—  
An' sech wus the lot o' old Deacon Day;  
He hed his trials—I'll tell you how  
He wus tempted an' tried by a highway cow.

The hue o' her hide was a dusky brown;  
Her body wus lean, an' her neck wus slim;  
One horn turned up, an' the other down;  
She wus sharp o' sight, an' wus long o' limb,  
With a peaked nose, a short stump-tail,  
An' ribs like the hoo on a home-made pail.

Many a day hed she sed in pound  
Fur meanly helpin' herself to corn,  
Many a cowardly cur an' hound  
Hed been transfixed by her crumpled horn,  
Many a tea-pot an' old tin-pail  
Hed the farm boys tied on her stumpy tail.

Old Deacon Day was a pious man,  
A frugal farmer, upright an' plain;  
Ah, many a weary mile he ran  
To drive her out o' his growin' grain.  
Sharp wus the pranks that she used to play  
To git her fill and to git away.

He used to sit on the Sabbath-day  
With his open Bible upon his knee,  
Thinkin' o' loved ones far away,  
In the Better Land that he longed to see—  
When a distant beller, borne thro' the air,  
Would bring him back to this world o' care.

When the Deacon went to his church in town,  
She watched an' waited till he went by;  
He never passed her without a frown,  
And an' e' gleam in each angry eye.  
He would crack his whip, an' holler, "Whay!"  
Ez he drove along in his "one-horse shay."

Then at his homestead she loved to call,  
Liftin' his bars with her crumpled horn,  
Nimbly scalin' his garden wall,  
Helpin' herself to his standin' corn,  
Eatin' his cabbages one by one—  
Scamperin' home when her meal wus done.

Off'en the Deacon homeward came,  
Hummin' a hymn, from the house o' prayer,  
His kindly heart in a tranquil frame,  
His soul ez calm ez the evenin' air,  
His forehead smooth ez a well-worn plow—  
To find in his garden that highway cow.

His human passions wus quick to rise,  
An' stridin' forth with a savage cry,  
With fury blazin' from both his eyes,  
Ez lightnin's flash in a summer sky,  
Redder an' redder his face would grow,  
An' after the critter he would go—

Over his garden, round and round,  
Breakin' his pear an' apple trees,  
Trampin' his melons into the ground,  
Tippin' ever his hives o' bees,  
Leavin' him angry an' badly stung,  
Wishin' the old cow's neck wus wrung.

The mosses grew on the garden wall;  
The years went by, with their work an' play;  
The boys o' the village grew strong and tall,  
An' the gray-haired farmers dropped away,  
One by one, ez the red leaves fall—  
But the highway cow outlived 'em all.

The things we hate are the last to fade;  
Some cares are lengthened thro' many years;  
The death o' the wicked seems long delayed,  
But there is a climax to all careers,  
An' the highway cow at last wus slain  
In runnin' a race with a railway train.

All into pieces at once she went,  
Jest like savin's banks when they fail;  
Out o' the world she wus swiftly sent;  
Lettie wus left but her own stump-tail.  
The farmers' gardens an' corn-fields now  
Are haunted no more by the highway cow.

**RECIPES.**

**CANNED STRAWBERRIES.**—Hull and weigh the berries, and to each pound put a third of a pound of sugar, place fruit and sugar together in a kettle with enough water to keep them from burning, cook as for stewing. Have your glass jars warming, and when the fruit is ready fill the jars and seal immediately, when cold tighten the rings or the fruit may ferment. Raspberries are done in the same way, only allowed  $\frac{1}{2}$  pound of sugar to each pound of fruit.

**COTTAGE PUDDING.**—1 cup of sugar, butter the size of an egg, 2 eggs, 1 cup of sweet milk, a large cup and a half of flour with three teaspoonfuls of baking powder or 1 teaspoonful of soda and two of cream of tartar, a little salt; bake in a loaf in a moderately hot oven, eat hot with sweet sauce. The same rule, only not as stiff, makes a very nice tea cake baked in a sheet.

**A SURE WAY TO REMOVE TEA STAINS.**—Mix thoroughly soft soap and salt—say a tablespoonful to a tea-out of soap—rub on the spots and spread the cloth on the grass where the sun will shine on it. Let it lay two or three days, then wash. If the stain is not all out it will disappear in the second washing. If the spots are wet occasionally while lying on the grass, it will hasten the bleaching.

**Exhibitions for 1882.**

- The Provincial, Kingston, Ont., 18 Sept.
- Western, London, Sept, 25, 26 and 27.
- Great Central, Hamilton, 26 Sept.
- Industrial, Toronto, Sept. 4th to 16th.
- Permanent, Montreal, P. Q., 14 Sept.

We have received from the Secretary of the Agricultural and Arts Association a copy of the 5th volume of the Canada Shorthorn Herd Book, under the new standard. It is well bound and got up in a superior manner, and ought to be in the hands of every breeder of Shorthorns in the country.

Draining and cultivating furnishes food for clover, and the clover takes it up and prepares it in the best shape for other crops. The clover does not create plant food, but merely saves it.

**Stock Notes.**

Mr. W. M. Miller, of Claremont, has just received a large importation of sheep from some of the best flocks in England; they comprise Cotswold and Oxford and Shropshire Downs. We believe that they have arrived in very good condition.

The average price of polled cattle sold at auction in Scotland during the past three years was, in round numbers: \$120, \$141 and \$160, an annual increase showing the growing favor accorded to hornless stock.

The *Breeders' Gazette* offers at the Chicago fair, in September next, a prize of a silver cup to the owner of the horse that shall make the fastest walking record for a full mile at any fair during the season of 1882.

"A Lover of Good Horses," in a letter to the *Clinton, Ont. New Era*, makes the following suggestions:—I think there are sufficient high-bred mares in Huron Co. to pay the investment of three or four thousand dollars in one of Scotland or England's very best stallions, but this is too much for one farmer to have in a horse, I think. Now, I have been thinking, could not some of our influential horse-breeders—say one hundred—join together and put in \$30 apiece, and send a good judge over and get them a really grand animal for their own use; they could keep him three years and then sell him; they need not feed him high to hurt. There would be the use of a \$3,000 horse for \$10 a year, with the exception of what it would cost to keep him. Or could it not be arranged in some way like this: Say one hundred leading farmers, each having a good breeding mare, give to one of our horse importers \$20 apiece, and let the importer invest another thousand in him, thus making three thousand dollars; let the farmers have the use of the horse for one season, and the importer own the horse and divide the risk. (This suggestion is deserving of consideration in many other counties in our Dominion besides Huron.)

Wm. E. Urwick, of Birmingham, Eng., writes that he could guarantee a sale of at least 100 head of cattle per fortnight from now till September, at paying rates, if the right sort is sent, viz., good bred Hereford, Shorthorn, or cross-bred heifers or bullocks not over 3 years. Interested parties would do well to note this advertisement in our Breeders' Directory.

Mr. John Grant, Bogga of Advie, Strathspey, Scotland, has purchased a select lot of Polled cattle, including several prize-winners, at very high prices, for exportation to Mr. George Whitfield, Rougemont, Canada. The selection includes a cow (Corriemulzie 2nd) and a two-year-old heifer from Gavenwood, a pair of handsome three-year-old cows and a bull calf from Ballindalloch (including a Victoria and a Rose), a pair of nice two-year-old heifers from Advie, and two bulls from Ballintomb.

The meeting of the Shorthorn breeders of America, at Chicago, Ill., on the 8th inst., was well attended, over 200 members present, representing all the cattle growing States west of the Alleghenies, and also New York and Virginia. They resolved to have one Herd Book for American Shorthorns, and passed strong resolutions regarding the urgent necessity for a strict and economical quarantine for importations of cattle; at the same time they expressed their high opinion of the efficient and well regulated quarantine station at Quebec. The officers elected were: Hon. Emory Cobb, President; B. F. Vanmeter, Vice-President; F. S. Lockridge, of Greencastle, Ind., Secretary; and T. W. Harvey, Treasurer.

**Commercial.**

THE FARMER'S ADVOCATE OFFICE,  
London, Ont., July 1, 1882.

The weather the past month on the whole has been very favorable for the growing crops.

**WHEAT**

Has been very quiet with a downward tendency. Crop prospects appear very favorable. The weather in England and on the continent being fine, has made the English dealer very indifferent to anything but his immediate wants. Farmers' deliveries are almost nil, and will continue so till after harvest, and till the new crop is well secured. Millers are, consequently, supplying their wants from the country dealers' stocks, many of whom have wheat for sale to-day that if asked a month ago would have said they had none to offer, and yet they have taken none in since that time. Notwithstanding the short crop of wheat in the United States last year, which, according to some western writers, was going to produce famine prices in England, there is now afloat in Great Britain 200,000 quarters of wheat more than at this date last year. This ought to convince our American friends that England is less dependent upon this continent for her wheat supplies than has been generally supposed. The wheat fields of India, combined with those of Russia, will no doubt be equal to the task of supplying any deficiency that may occur in the American wheat crops of the future. Crop accounts continue favorable. Tennessee is now harvesting one of the best crops of wheat that State has had for 10 years.

**OATS**

Are being pretty well picked up, and we shall not be surprised to see them scarce before the new crop is fit for feeding horses.

**WOOL**

Is moving very slowly, and farmers seem disposed to keep their wool at home for a time at least. Whether this will better the situation will be known later on. Good fleece is selling at 18 to 20 cents.

**CHEESE**

The turn of the market for this now important branch of farm products has been the cause of some surprise and no little satisfaction to factory-men. The very dull, dragging trade of last win-

ter, together with the heavy stocks of old cheese this spring, gave nearly all the impression that we might look for pretty low prices this summer. Instead of declining, prices have steadily advanced until 11 cents last week has been paid by one shipper for last half of June make. The make, so far, has been very much below that of this time last year, and it is the opinion of a good many that it will continue below the average throughout the season. How near they are correct, time will tell.

**BUTTER**

Has been following in the upward movement till it is as high as it is likely to be for some time at least.

**CATTLE FROM THE NORTHWEST.**

A gentleman just from Montana, who is largely interested in live stock in that territory, says that the cattle and sheep there never were in better condition than at present. Shipping will begin about the middle of June, and at least 150,000 cattle will come over the road from Montana this season, and nearly as many more from Washington Territory and Oregon. Shipments of sheep will be equally heavy. He estimates the wool clip of Montana at 5,000,000 pounds. He says also that the crops from the Otter Tail River, in Minnesota, to the Missouri River, a distance of 250 miles, look splendid. From Brainard south to the southern Minnesota line the outlook is less favorable, the season having been more backward than in extreme northern Minnesota and Dakota.

**THE FRUIT CROP.**

The fruit crop all over the Dominion is likely to be very heavy. Apples, especially, promise to be very abundant.

**THE PEACH CROP.**

An immense fruit crop is promised in Maryland and Delaware peninsulas; it is estimated that the outlook is so good that the crop promises to exceed the superabundant one of 1875, when thousands of baskets of peaches had to rot upon the ground. This year it is expected that the numerous factories which have sprung up will use all the peaches that cannot be marketed in a fresh state.

**FARMERS' MARKETS.**

LONDON, ONT., 1st July, 1882.

Wheat, Deihl... \$2 00 to \$2 16	Lard, per lb... 15 to 16
Red... 2 00 to 2 13	Flax Meal... 3 50 to 3 75
Spring... 2 00 to 2 10	Rye... 1 20 to 1 25
Treadwell... 2 00 to 2 10	Barley... 1 40 to 1 50
Clawson... 2 00 to 2 05	Timothy seed... 2 50 to 3 75
Oats... 1 30 to 1 35	Butter, per lb... 15 to 18
Peas... 1 40 to 1 45	" tub... 14 to 15
Corn... 1 50 to 1 70	" crock... 13 to 15
Hay, per ton... 12 00 to 14 00	Eggs... 18 to 15
Linseed Cake... 2 00 to 2 25	Hops, 100 lbs... 21 00 to 30 00
Potatoes, bag... 1 40 to 1 60	Wool... 18 to 20
Honey, per lb... 10 to 14	Apples... 1 00 to 1 25
Cheese... 4 60 to 5 00	Onions... 75 to 1 00
Cordwood... 50 to 60	Turkeys, each... 1 00 to 1 50
Geese, each... 63 to 60	Ducks, pair... 50 to 75
Chickens, pair... 8 00 to 9 00	Lamb lb... 10 to 11
Beef... 8 25 to 8 50	Mutton lb... 9 to 10
Hogs dressed, per 100 lbs... 30 to 40	Veal... 5 to 9
Turnips... 7 to 7	Carrots... 15 to 25
Tallow, rend... 0 to 0	Clover seed bu... 4 75 to 5 00
" rough... 0 to 0	Beans white bu... 1 06 to 0 00
Maple Syrup... \$1 30 to \$1 50 per gallon.	

**GRAIN AND PROVISIONS**

MONTREAL, P. Q., 1st July.

Wheat—	Can. spring... \$1 35 to \$1 43	Butter—	East'n Tp's... 19 to 21
Red winter... 1 35 to 1 39	White winter... 1 30 to 1 32	Brockville... 19 to 21	Morrisburg... 19 to 21
Barley... 70 to 75	Oats, per bush... 44 to 45	Western... 17 to 19	Creamery... 23 to 23
Peas, per bush... 1 00 to 0 00	Flour, per 100 lb... 2 80 to 0 00	Lard... 15 to 16	Hams... 15 to 16
Superior ex... 6 20 to 0 00	Superfine... 6 00 to 6 10	Bacon... 12 to 13	Cheese... 10 to 11
Rye... 85 to 87	Oatmeal per 100 lb... 2 65 to 2 75	Potatoes, bag... 1 60 to 1 75	Apples, brl... 3 00 to 5 00
		Butter, lb. rolls... 14 to 22	" dairy... 15 to 19
		Hogs, 100 lbs... 9 50 to 9 75	Eggs, fresh... 16 to 17
		Peas... 80 to 85	Wool, per lb... 18 to 20
		Hay... 11 00 to 16 00	Barley... 62 to 65
		Rye... 70 to 75	Clover Seed bush... 4 90 to 5 10

**TORONTO, ONT., 1st July**

Wheat fall... \$1 21 to \$1 23	Spring... 1 30 to 1 33	Oats... 42 to 45	Hogs, 100 lbs... 9 50 to 9 75	Peas... 80 to 85	Hay... 11 00 to 16 00	Rye... 70 to 75
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LIVERPOOL, ENG., July 1.

Flour, per c... 10 00 to 12 06	Spring wheat... 9 06 to 10 00	Red Winter... 9 09 to 10 03	White... 9 03 to 09 10	Club... 9 10 to 10 03	Corn... 6 03 to 6 06	Oats, per c... 6 06 to
Barley, per c... 5 02 to	Peas, per c... 5 02 to 6 03	Pork... 57 06 to 57 09	Lard... 57 09 to 60 09	Bacon... 55 06 to 58 00	Beef, new... 00 00 to	Tallow... 42 06 to

New York, July 1.

New Butter—	State half ferkins and pails... 22 to 23	State creamery... 23 to 24	Western dairy... 19 to 20	Western factory... 16 to 17	creamery... 22 to 23
Eggs—	New Jersey, doz... 22 to	State per doz... 21 to	Western, per doz... 20 to	Canada per doz... 20 to	Potatoes—
	New York State, per bbl... \$3.50	to \$1.00	to \$1.50		

BOSTON, MASS., 1st July.

Flour—	Choice winter... \$7 50 to \$8 00	Choice spring... 7 50 to 8 75	Corn meal bbl... 3 50 to 3 65	Oatmeal, bbl... 6 50 to 7 50	Oats... 62 to 64	Wool—	Western fine... 41 1/2 to 43	Pulled extra... 43 to 50	Canada pulled... 35 to 37	Combing... 44 to 46	Hay—	Coarse, ton... 16 00 to 19 00	Fine... 20 00 to 21 00	Oat straw... 10 00 to 11 00	Apples—	Baldwins... 4 50 to 5 00	Russats... 5 00 to 5 50	Onions, per bbl... 2 50 to 3 00	Hops... 10 to 20
Butter—	Creamery... \$ 27 to \$ 27	Western... 24 to 25	Dairy... 24 to 25	Cheese—	Fall cream, new... 11 to 11 1/2	" old... 13 to 13 1/2	Beans, pr bu.—	Hand picked... 3 80 to 3 85	Mediums... 3 50 to 3 50	Red Kidney... 2 75 to 2 75	Potatoes—	Northern Rose... 150 to 0 00	Burbank... 125 to 0 00	Eggs—	Seedlings... 125 to 0 00	Eastern... 21 to	Canada... 21 to	Western... 19 to	

**CHEESE MARKETS.**

London, Eng., June 24th.—There is abundance of milk here this season. The crops of grass will be very heavy, and the make of cheese large. This accounts for the dullness of the foreign trade this season; there being a larger make of cheese than usual, abroad. Dealers operate with extreme caution. There is likely to be a great influx of cheese into the market; this will naturally cause a heavy decline in price. Per cable, 68s.

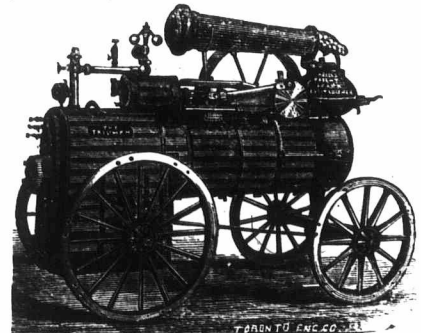
Utica, N. Y.—Sales, 6,969 boxes at 10 1/2c.  
Little Falls N. Y.—Trade light. Sides, 7,000 boxes at 8 1/2c to 10 1/2c.  
Ingersoll, Ont.—Market dull, holders asking 10 1/2c or over.

**NEW ADVERTISEMENTS.**

**STRAWBERRIES**  
Newest and Best Varieties

Grown in pots and ready for shipment after July 25th. If planted early will give a good crop next season. New descriptive priced catalogue containing full cultural directions mailed free. Address **ELLWANGER & BARRY**, 199-b ROCHESTER, N. Y.

**THE ONLY BEST!**  
(Licensed by leading Fire Insurance Companies.)



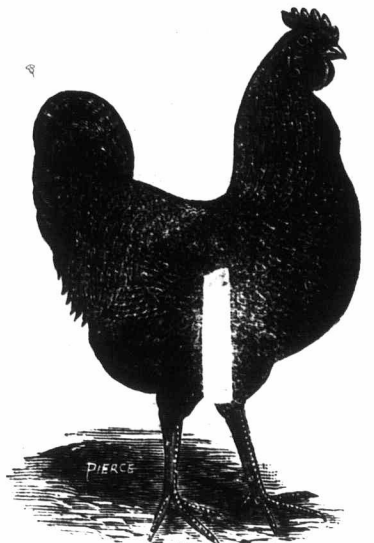
**THE "TRIUMPH" ENGINE.**

THE LEADING SEPARATORS  
**Abell's "Perfect Paragon"**  
(with additional improvements for 1882.)  
**Abell's "Vanquishing Vibrator,"**  
and the famous  
**"Woodbridge Champion."**

**TREAD-POWER THRESHING MACHINES**  
One and two horses.

9 Nine Gold Medals won and in my possession. Send for catalogue and Pamphlet. In writing name this paper.  
**JOHN ABELL**,  
Woodbridge Machine Works,  
199-c WOODBRIDGE, ONTARIO, CANADA.

**EAST HAMILTON POULTRY YARDS**



**I have bred this year over 300 of the finest PLYMOUTH ROCKS & WHITE LEGHORNS**

to be found in Canada. I will not have time to exhibit at the fall shows, but will have birds of 1882 for sale, mated for exhibition or breeding. Prices from \$1.50 to \$3.00 each according to markings of birds you want. First come first served. Early orders have the pick of the best flock in Canada.

**THOS. GAIN**,  
78 King Street E. St. HAMILTON.  
Thorough bred pedigree Ayshire Cow for sale or exchange for a horse, (in calf to Jardine's Mars).

**FERTILIZERS.**

**The Brockville Chemical and Superphosphate Co'y (Ld.)**  
**BROCKVILLE, ONT.**

Manufacturers of SULPHURIC, NITRIC and MURIATIC ACIDS, and of **Superphosphate of Lime.**

—PRIZE MEDAL, CENTENNIAL, 1876.—

This Superphosphate is manufactured from best Canadian Rock Phosphate, thoroughly dissolved and ammoniated, and is guaranteed of superior quality. Put up in barrels, 250 lbs. each nett (8 to the ton). Price \$32 per ton, f.o.b. rail or boat. Send for circular. 190-L

**Windsor Hotel**

PRINCESS STREET,  
**KINGSTON, ONTARIO.**

Centrally Located.  
First-class Billiard Parlor.  
Modern Improvements.  
Good Sample Rooms.

TERMS MODERATE. **MARTIN O'BRIEN, Proprietor**  
197-a

**IMPORTANT SALE**

—OF—  
**PURE-BRED Polled Angus or Aberdeen Cattle**

A large draft of over **SIXTY HEAD** from the herd of the

**RIGHT HON. the EARL of AIRLIE,**

will be sold by PUBLIC ROUP at

**CARTACHY CASTLE**

KIRRIEMUIR, SCOTLAND.

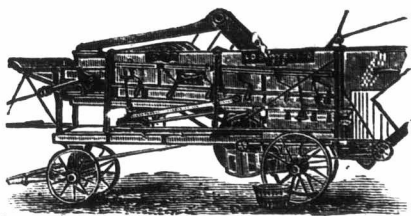
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**THURSDAY, 5th OCTOBER NEXT**

Catalogues will be issued about the end of August.

Airlie Estates Office, May, 1882.

# SAWYER'S Grain Saver THRESHER



### READ WHAT THE FARMERS SAY OF IT:

John Burkell, Rosemeath, Ont.—"Runs easy, light and very steady."  
 John Beemer, St. George, Ont.—"No time lost, runs all day without stops."  
 Pulfer & Charters, Brampton P. O., Ont.—"Works well in all kinds of grain, wet or dry."  
 C. Nelson, Burn-Brae.—"Second to none; stands at the top over all threshers."  
 Jesse E. Furry, Lowbanks, Ont.—"No dust; no breaks; no stoppages."  
 John Sigworth, Harrowsmith.—"Threshes clean without wasting grain."  
 Alcock & Fleming, Ravenna.—"Beards barley, wet or dry, perfectly."  
 C. B. Taylor, Trenton.—"Works splendid; gives universal satisfaction."  
 Anglin Bros., Brewers' Mills.—"Runs and feeds easy; is superior to all others."

Address us for Illustrated Catalogue of Threshers, Clover Mills, Horse Powers, Reapers and Mowers.  
**L. D. SAWYER & CO.,**  
 HAMILTON, ONT., CANADA.

173-1p

## LUMBERS' BOTANICAL REMEDIES



### LUMBERS' AGUE CURE

A never-failing cure for Intermittent Fever, or Fever and Ague in all its stages. And it will also be found invaluable in all nervous and bilious diseases.

### LUMBERS' LIVER PILLS

These remove obstructions of the Liver and act SPECIFICALLY UPON THIS ORGAN, changing its secretions. They are excellent in all affections of the Liver, generally removing the pain in the side and shoulder in a short time.

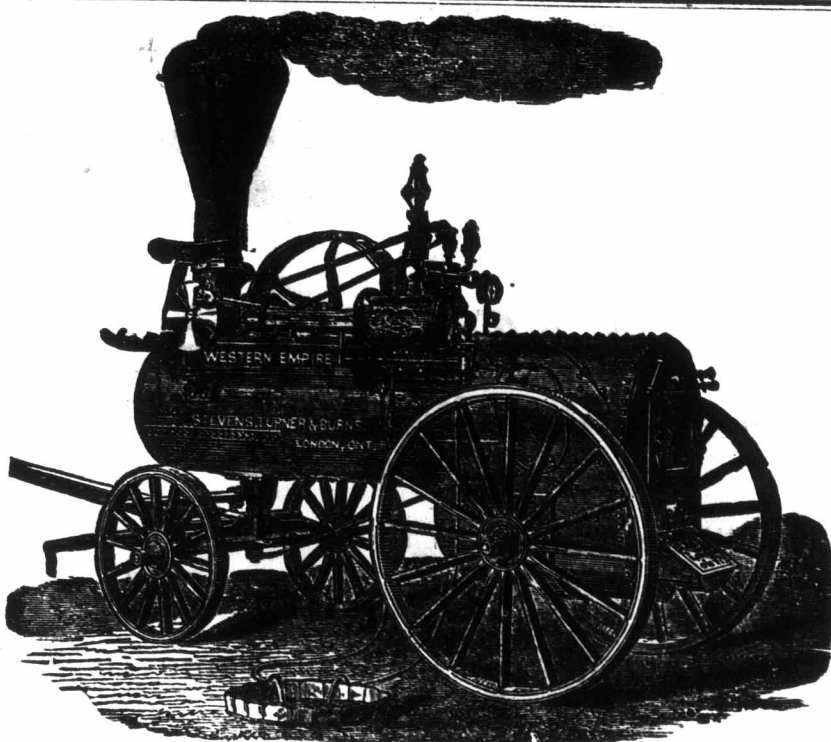
### LUMBERS' SURE CURE FOR PILES

A Speedy and Permanent Cure for this Painful Malady.

These Pills have the very highest reputation with those that have used them.

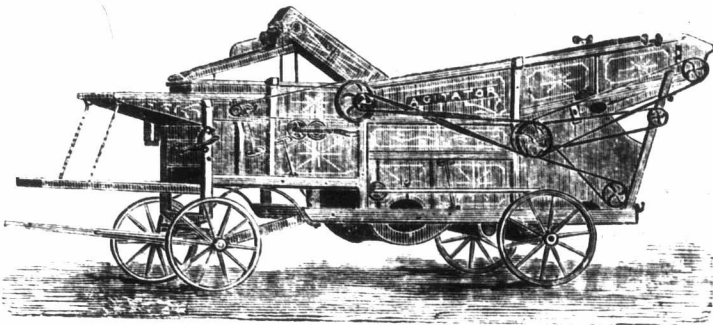
For Sale by all Principal Druggists

ADDRESS—  
**WM. LUMBERS, Sr.,**  
 SOLE PROPRIETOR,  
 288 Carlton St., Toronto, Ont.



## "Western Empire" Threshing Engine and Boiler.

The Most Reliable, Effective, Powerful and Economical Engine in the Market.



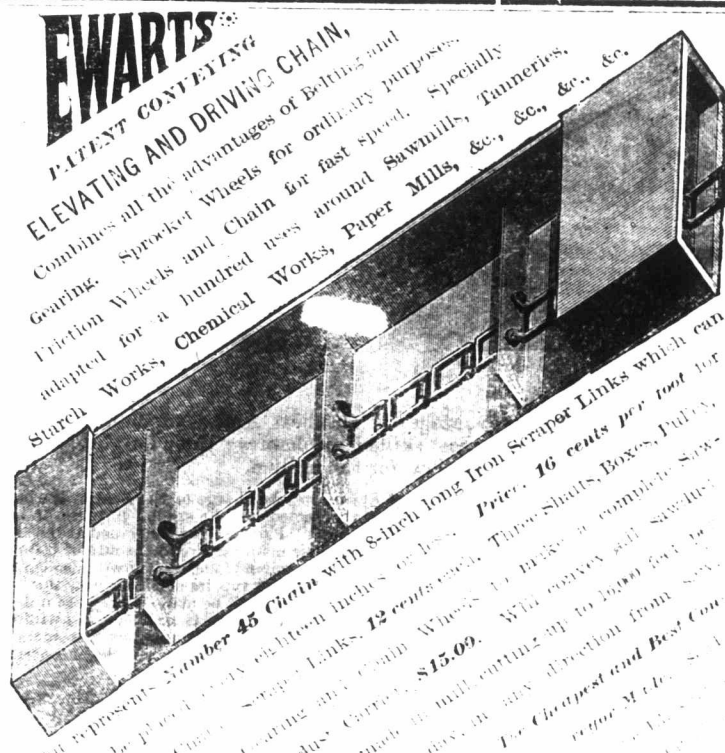
## "Western Empire" Agitator and Genuine Pitts' Canvas Machine, Separator

Our Agitator is considered the Most Successful now in the Market by all who have seen it work.

Our Genuine Pitts' Separator has no Equal as a Canvas Machine.

An inspection from intending purchasers is invited.

**THE STEVENS, TURNER & BURNS FOUNDRY AND GENERAL MANUFACTURING CO.—(Limited)**  
 Cor. Richmond and Bathurst Sts., LONDON, ONTARIO.



**THE WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA,**  
 Sole Manufacturers and Proprietors of Canadian Patent

## Grand Trunk Railway OF CANADA.

TRANS-CONTINENTAL ROUTE:

OVER 1300 MILES UNDER ONE MANAGEMENT

# MANITOBA

AND THE NORTH-WEST TERRITORIES!

PASSENGERS to the rich wheat-producing lands of Manitoba, and the Agricultural and Mining Districts of British Columbia, will find the cheapest and best route via the Grand Trunk Railway of Canada.

THIS IS THE LEGITIMATE ROUTE TO THE

## NORTH - WEST!

affording a continuous trip and making direct connections with the steamer lines from Sarina and Collingwood, and by rail through to Winnipeg, and all points in the North-West Territories.

The Grand Trunk Railway, with its powerful and direct connections, and extensive and continuous through line, is the favorite route, and can be relied upon. The very best rates will be quoted for freight, passage, live stock, effects and extra baggage, for emigrant parties; also for individual emigrants. It has deservedly gained the reputation of being an exceptionally desirable route for bodies of emigrant settlers. Special attention has been paid to this business, both as regards cars, train service, accommodations en route, and instructions to employes to treat parties and holders of our tickets with courtesy and attention.

### To Sportsmen and Excursionists

Tickets will be issued by all rail, or by rail and the Lakes, to the various points in the North-West during the sporting season.

Apply for full information to agents at the Office of the Grand Trunk Railway.

JAS. STEPHENSON, JOS. HICKSON,  
 199-1 Gen'l Pass'r Agent. Gen'l Manager.

## MANITOBA vs. MANITOULIN ISLAND (LAKE HURON.)

We cannot offer you a balmy day of 40 degrees below zero, or a summer frost, or a blizzard, or a flood, or a grass-hopper plague every few years, or the potato bug, or alkaline water to drink, like Manitoba; but we can offer you unequalled farm land, magnificent natural pastures, cash markets, good schools, good water, good fishing and no potato bugs.

NEARLY 100 IMPROVED FARMS FOR SALE AT REASONABLE PRICES.

Send 6 Cents for Descriptive Catalogue.

**M NITOU LIN LAND AGENCY**  
 199-c BOX 9, MANITOWANING.

### FOR SALE.

## NEW PORTABLE AGRICULTURAL ENGINE & BOILER

(Haggart make.) NEVER USED. PRICES LOW.

Address **JAMES ROBERTSON & Co.,** Metal Merchants, Toronto, or Box 223 London. 197-a

### FARMS FOR SALE

In Western Ontario a number of choice Farms. Full descriptive list sent on application. Correspondence invited, full information given, and on personal application at my office plans of the townships shown, enabling strangers to see the position of properties and their proximity to towns, railway stations, &c. Farms with acreage to suit every one. Send to

**CHARLES E. BRYDGES,** Real Estate Agent.

Land Office, 98 Dundas street west, London, opposite to the City Hotel, for list of farms for sale.

176-1f

— P U R E —

**PARIS GREEN!**

MANUFACTURED BY

**WILLIAM JOHNSON,**

572 William Street, Montreal, P. O. Box 926.

This GREEN will be offered to the public during the season in  
**1, 2, 3, 4, 5, 7, 10 and 25 pound TINS**  
 having a thin cover, which can be easily removed with a penknife.

**THE ADVANTAGES**

of procuring PARIS GREEN in these tins will be apparent to all, as thereby very much of the annoyance and danger attending the weighing of this article out of large packages will be obviated.

**TO FARMERS**

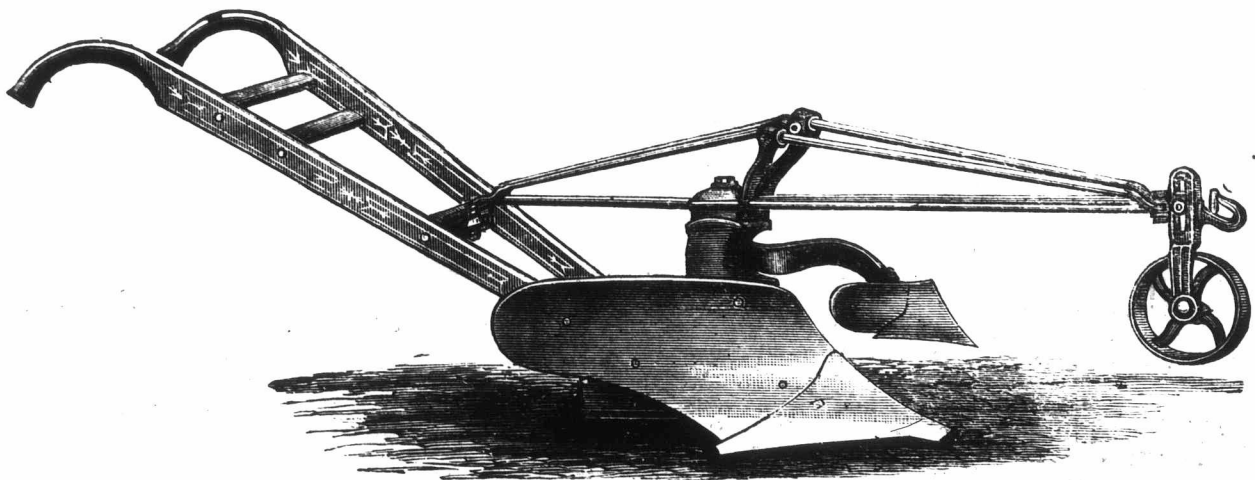
and all requiring to use it as a bug poison these tins are **ESPECIALLY ADAPTED.**

198-c

☞ To be had from all Dealers. ☞

**THE "SEEGMILLER" TRUSS BEAM PLOW!**

Flexible Wheel, Universal Standard Jointer Attachment.



This Celebrated Plow is made in Canada. It combines all the advantages of the best American chilled plows, with additional improvements. The material used in their construction is the best made; they are constructed by the most skilled mechanics; their durability and efficiency are unsurpassed. The thousands of testimonials from those using them are such as to satisfy all that this is the plow for the million.

I desire to inform the farmers of Canada that, although I am about to remove to the United States, to take charge of the Benton Harbor Plow Works, Benton Harbor, Michigan, I shall still retain an interest in the Seegmiller Plow Works, at Goderich, Ont. The Benton Harbor Plow Works have been erected for the special purpose of manufacturing the "Seegmiller" Plow to supply the demand which has arisen from its introduction among the farmers of the West. The manufacture of the "Seegmiller" Plow will be continued at the Goderich Factory by the firm under the style of Seegmiller & Co. They have already at this factory manufactured 2,500 plows for this season's trade, and are continuing their manufacture at the rate of 600 per month. However, the demand is increasing, and to meet this increasing demand they are enlarging their premises and hope shortly to be in a position to supply the Canadian trade. They will also continue to manufacture shares of the best charcoal iron for the "No. 40" and "E 2 Oliver" Plows, unequalled for wearing qualities. Farmers desiring the "Seegmiller" Plow, or repairs of either it or the "Oliver No. 40" or "E 2," and who are not near an agency, can be supplied by addressing Seegmiller & Co., Goderich, Ont. To such persons a reduction in the price of shares will be made if they are ordered by the dozen. Where Seegmiller & Co. have no agents, for \$16 they will send a Seegmiller Plow to any farmer in Ontario, Quebec, New Brunswick, Nova Scotia or Prince Edward Island. Parties willing to act as agents will do well to correspond with Seegmiller & Co. These plows sell very readily wherever introduced, and the discounts to agents are liberal. I desire to thank my numerous customers for their patronage, and also the many intelligent farmers and agents who have assisted me in bringing the "Seegmiller" Plow before the public, and who, by making manifest its merits, have contributed to gain for it the favor with which it is so universally regarded. SAMUEL SEEGMILLER.

Plows sent, freight prepaid, to any firm in Ontario, Quebec, the Maritime Provinces and Manitoba. Address—

**SEEGMILLER & Co., Agricultural Foundry, GODERICH, ONT.**