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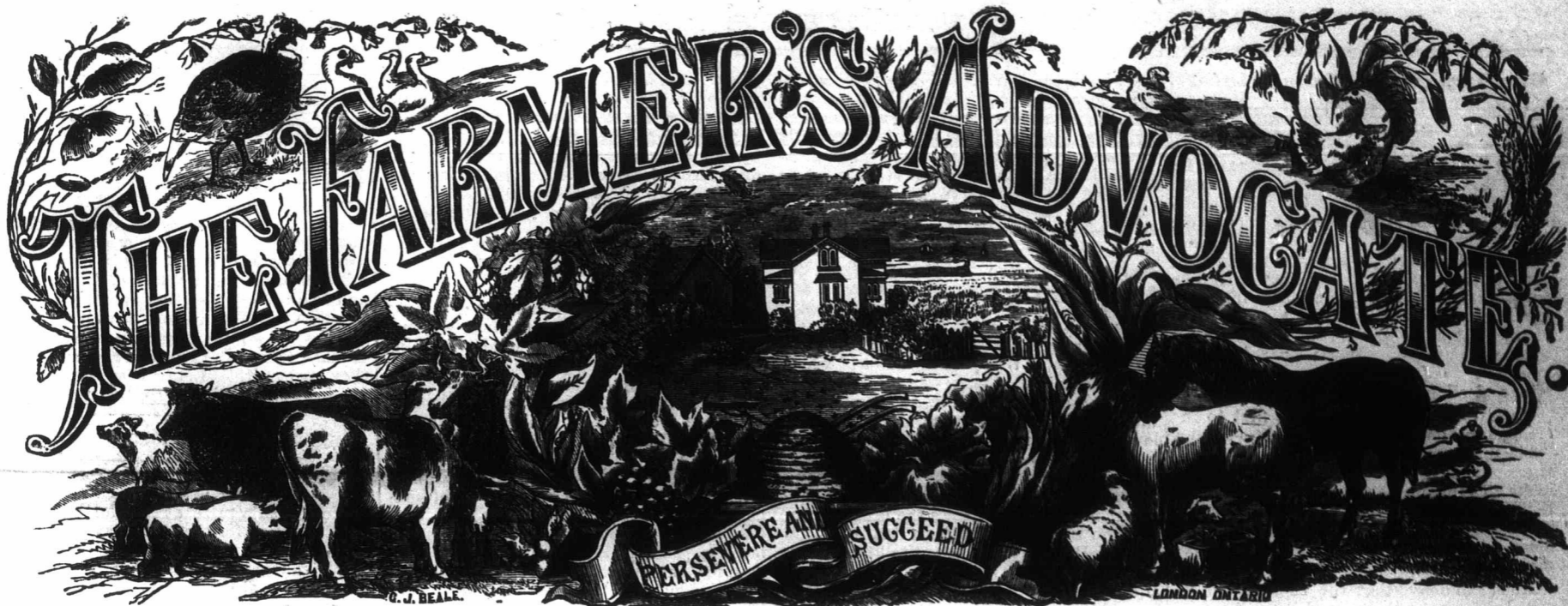
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VOL. X. { WILLIAM WELD,  
Editor & Proprietor. }

LONDON, ONT., DECEMBER, 1874.

{ \$1 Per Annum, Postage Prepaid. } NO. 12  
{ Office—Dundas-St., Opp. City Hotel. }

### New Seed—Spring Wheat.

In this Western peninsula of Canada, spring wheat has not been as profitable to farmers for a number of years as the winter varieties. In the northern and eastern parts of Ontario it has been raised with more profit. We have procured and tried every variety we could hear of, and sometimes even tried fall wheats that have been introduced as spring wheat. The results in the last named trials have always been failures. The old China wheat, although tough to thresh, used to yield us remunerative returns, but for many years has been discarded, as it only proved a dead loss to those that persistently attempted to grow it. The time may again arrive when that wheat, with its short thick-set bearded head, may come into profitable cultivation. The Siberian superseded it; it lasted but a few years. The Rio-Grand or McCasling or Red River wheats, as they were called, succeeded also for a time; the Club, Morden and Baltic wheats also have nearly run their course; the Scotch Fife or Glasgow wheat, which has had a general cultivation, has shown strong symptoms of degenerating. The mind's eye of the progressive farmer is looking forth for a variety that may again prove profitable. We do not pretend to say but many of the above named varieties are doing a good service in some places particularly in localities where wheat has not been much cultivated. In many old sections, where wheat has been continually cultivated, each of the above varieties is being abandoned, and so much has been lost by some of them already that many good farmers would not sow either of them if one would give the seed and guarantee \$4 per bushel for the crop. The spring wheat that appears to have given most general satisfaction this year, has been the Farrow wheat, a bald, red-chaffed, red wheat.

This wheat is now sown to a considerable extent in some parts of Canada, and can be procured at reasonable rates; we have tried this wheat and seen some very good fields of it raised. For general cultivation, where it is known and can be procured, we believe, it will be preferred to any of the other above named varieties.

There will be two new varieties introduced this spring; or at least new to us, and most probably to all our readers; one of these, the Egyptian wheat, a peculiar variety, having very small heads growing from the main head; the wheat is white. We understand its greatest fault is its liability to rust; this is the report we hear of the grain from as reliable a source as we could wish. The head is long heavy, and bearded; the grains are short and thick, and rather wide set on the head. This variety was found growing by a person whose name it bears, seven years ago. He carefully sowed the head. He has continued raising it, finding it answered better than any other variety. It has in some instances yielded double the crop the Fife did in the same field; the quality of the flour is unsurpassed. It has been grown on stiff clay and on loamy and black soil; in the last mentioned instance it grew 4½ feet high, and

stood well up without lodging or rusting. The great desideratum in this wheat is claimed, that it is less liable to rust or lodge than any other variety, and in yield of grain and quality of flour is unsurpassed. These are the accounts we have of it; there is, as yet, but a limited quantity in the country.

### Clawson Wheat.

In some of the United States there has been considerable excitement raised in regard to the Clawson Wheat. The engraving alongside represents one of the heads. It is a white winter wheat; it takes its name from the person who first disseminated it. In some places it is called the Seneca Wheat.

Some of the writers in the American papers claim that it yields 25 per cent. more profit than any other winter variety. It is our opinion that it will not be found as profitable as the Scott Wheat. To give our subscribers an opportunity of trying it, we sent out a lot of 4 oz. packages to various parts of the Dominion. Should it prove more productive than other varieties, we shall be able to import with confidence for next fall's supply.

Our artist is now engraving a head of the Egyptian Spring wheat, which will appear in the next issue. The wheat has a most peculiar head, having several small heads growing from it. Its appearance is most remarkable; very few have ever seen anything like it.

### To Our Subscribers.

The present number closes the volume of the ADVOCATE for 1874. We return each one of you our thanks for your aid in enabling us to make greater preparations for improvement for the incoming year.

We believe we have filled our engagements with you in the past. In regard to next year's paper, we feel confident that you will be better pleased with its appearance. A handsome cover will be placed on each paper, and we trust better matter will fill its pages.

The circulation has increased during the past year from 6,800 to 9,975, and is in-

creasing at the present time faster than ever before. The increase of circulation enables us to improve. We hope to have such an agricultural paper in Canada that will be at least equal, if not superior to any agricultural paper printed on the Globe. We now ask your aid to accomplish the undertaking. We have brought before your notice such things and plans as we have thought advantageous to you; we have exposed and condemned such things and acts as we have deemed of injury to you. We purpose keeping true to our standard—the Farmers' Advocate—and ask your aid in upholding it.

### Our Chromo—The Little Wanderer.

When we were in England, we examined a great many pictures, with a view of making a present to such of our subscribers as aided in extending our circulation. We selected a fine steel engraving, but on our re-



turn we found on this continent a chromo lithograph of a portion of the same subject, but over twice its size, and so beautifully finished, that, notwithstanding its price, we determined that each one of our subscribers should have a chance to obtain it. The accompanying engraving gives but a very faint idea of the chromo. It merely shows what figures are in it, but, of course, we cannot attempt, with an engraving, to give any idea of the beautiful coloring and finish. The subject is a good one, pleasing to old and young, and can offend no one. We give the chromo to each one of you that will send in one new subscriber, accompanied with the \$1.00. The size of frame that should be used for it is 20x16 inches, to allow for a proper margin of white at the sides, which should in all cases be shown. We guarantee every one satisfaction that procures one of them. One of the best artists in Canada says the picture is worth \$2.00. See prospectus for 1875 on page 190.

### Agents Wanted.

We wish to procure a really good active agent in nearly every County in Canada, to obtain subscribers for the ADVOCATE. We want such agents as have the ability to lay the merits of the paper before the farmers, and show the advantages of taking it.

We will either pay a salary or allow a very large commission to those who show themselves capable. Good men may rely upon steady employment. To those farmers, or farmers' sons, who wish nice work for the winter, there is a good opportunity. Old subscribers or their sons will receive the first chance; send for specimen copies and terms to agents.

### Colorado Potatoes.

Although the Colorado potato bug has been so destructive to the crop with us, it has done but little damage in Colorado. It is generally admitted that the bugs were first discovered there in the low and flat lands, but the high lands are, and have been, entirely free from their ravages, and the potato is the leading crop raised there. One farmer near Denver, this year raised 30,000 bushels. We notice this in one of our exchanges.

### Prize Essay.

A prize will be given for the best essay on Selling Stock in Canada. Essay to be in this office by the 1st of January.

The Prize Essay—Fence or no Fence—will appear in next issue.

### Handling Butter in the Irish Fashion.

The following extract is from a letter received by Mr. Richards, of the firm of Richards & Cooch, Chicago, Ill., from his partner who is now in Europe, and gives an interesting account of the manner in which butter is handled in Ireland:

I visited Cork and saw the most systematic method of handling butter I have ever seen. They handled from 1,500 to 3,000 firkin per day. All butter is taken to the butter market for inspection, before going to the party's store to whom it is consigned. This market is a large stone building—large as our Board of Trade—but only one story high. It is divided off in five sections, A, B, C, D, and E. These sections are filled with butter as it comes from the depots. There are five inspectors, sworn by the company to perform their work faithfully. They ballot every morning to see which section they are to inspect, so they never know which butter is to be looked at by them. I inquired of several merchants whether they ever had any difficulties with inspecting butter in this way, and they informed me they did not. I think it is the best system in the world. The market is cleared up every day. I find our medium grade of Western sound butter would inspect about fourths.

One of the Russian papers has a correspondence descriptive of a queer element of our Western population. They are Russians who were sent to Siberia as convicts, but who, having made their way to the eastern coast of Asia, have got over Behring Straits on American whalers and are now employed as herdsmen on the plains.



### Our Implement Manufacturers.

Canada has been a good field for the enterprising manufacturer to develop his abilities in. The great demand for labor-saving implements has made it necessary for every farmer worthy of the name to expend many hundreds of dollars in good implements. Numbers have spent thousands; thus immense sums are annually expended. Our manufacturers are keen, shrewd men; some of them go to the continent of Europe to examine and find out any new improvement that can be made on any new implement. Others go to the States annually for the same purpose. If the least improvement can be found, it is eagerly sought after and adopted here.

Each one strives to be the first to introduce any improvement, as it gives them a decided advantage in effecting sales. Sometimes old plans are adopted, on purpose to make a change to talk about, or to create a little excitement. In attending exhibitions, we have observed that nearly every implement exhibited has some special improvement or alteration to draw attention.

None can deny that the construction of our implements is as good as can be procured in any part of the world, and far better adapted to our use than most of the implements made in Europe. In fact, the Dominion implements have now obtained such a name that instead of the necessity of our importing from Europe, our machinery is finding a market there, and some has also been sent to Australia.

It is to be regretted that one manufacturer in particular, who, having gained some Provincial prizes on an important implement, manufactured a large number. Aided by the first prize ticket, he disposed of his wares, but either from desisting in putting in a proper metal, or employing efficient workmanship, many farmers found they had a useless implement in the time of need.—We ought, perhaps, to mention the name, but the law is such that if we were to do so, we might be dragged into a lawsuit for libel.

A great desideratum in some of our machinery is greater durability. Our best manufacturers are turning their attention to this to a greater extent every year. The latest improvement we have heard of in this particular has been a novel process of mixing metals. An American discovered a way of melting steel, wrought iron and pig iron together, a process that was not known. Of course he patents his knowledge. He was likely in Canada, and we hear that one of our leading manufacturers has, at a great expense, purchased this right, and is now beginning to use this amalgam metal, which is claimed to be superior to steel, wrought iron, or the best cast iron, for many purposes. If this metal proves half as good as represented, it will give to the manufacturers a decided advantage. We have not yet seen it, nor have we seen the inventor.

This patent business tends to make the large shops more numerous, and the small ones fewer, as a small manufacturer cannot cope with the larger ones in paying great prices for testing new implements or new inventions.

### The Cockle Burr.

Of large weeds, this is one of the most generally met with in the neighborhood. Like others, the old proverb is to it very applicable: "One year seeding, ten years weeding." Along fences and by the road side we meet it every day, and its means for scattering its seed abroad are continually extending the evil. The ripe burs adhere to whatever they touch with their prickles, cattle bringing them clinging to their hair; but the wool of sheep is still more liable to be the means of disseminating them than any thing else. We often bring them adhering to our trousers, after a walk by the wayside or in neglected fields, and brushing them off, we leave the seed to grow where it is left, making more work in hoeing up weeds the following season. Professor Bissey writes of them as follows in the *Western Farm Journal*, in reply to a correspondent sending him some of the seed with other seed for identification:

Of the first one, the sender says "it is a new comer, is very troublesome in corn fields and gardens, does not trouble small grain, and is a great nuisance with sheep raisers." The specimen, upon its arrival, proved to be the cockle-burr, (*Xanthium strumarium*, var. *coquinatum*.) It grows usually in most rich

soil, has broad leaves, and produces an oblong "fruit," or burr, (an inch or more in length), which is covered with stout hooked prickles. Inside of each burr are generally two seeds lying side by side and running its whole length. As this plant is quite apt to be found in the waste places of the farm, and by the road-side, it is almost useless to fight only in the cultivated fields. It must be attacked everywhere. The "boy" must be sent with hoe not only in the corn field, but also into the road bordering the farm, and into the timber lot where the miserable things grow. Too often our farmers and gardeners make the great mistake of thinking that clean culture of that part of the farm which is in corn, wheat, oats, or other like crop, is all that is necessary, while the timber lot, the fence rows, and the road side are all allowed to grow up with the vilest of weeds. Let it be remembered that the seeds of plants have locomotive powers, which in many cases have carried the species from one continent to the other, across the broad ocean, through a space of perhaps ten thousand miles. It is folly to attempt to keep the inside of a garden or field clean if weeds are allowed to grow up all around the borders.

### Increased Value of Land in England.

The *Mark Lane Express*, in a late number, refers to the general complaint of the value of land continually increasing, while the quality of its cereal produce is, by the repeal of the duties, below its just proportion.—The causes to which this is assigned are: the increase of population; the increase of capital; the improvement in agriculture, and the employment of machinery. The improvement in agriculture only can account for the fact that English farmers can pay high rents and taxes, and spend such large amounts in farm improvements, while the price of grain is so much lower than it was some years since. The superior quality of stock on the farms of Britain and the cost of high farming prove that high farming is profitable. The judicious investment of capital in farming is almost certain to bring in large profits. So well is this understood that a good farm can hardly be got to rent or purchase, in consequence of the great competition, and the sons of farmers are in many instances forced to pursue some other occupation than that of their fathers. It is said that it requires as much interest to get a farm as a Government appointment.

Of the consequence of the increase of population and the improved farming, the *Express* says:

"It is evident, too, that this increase in population and in the value of land is accompanied with an increase in the value of the produce, especially animal food, which is not so readily obtainable from abroad as cereals. In 1821 good rounds of beef could be purchased in Whitechapel Market at 4d. per lb., which could not now be had for less than double the money. And this enhanced value of the product is, of course, another consequence of the increased value of the land, and a powerful stimulant in the advancement of rent; so that everything connected with landed property tends to increase its value, and that value gives no sign of diminution, but rather the contrary.

"Then, the increased and increasing wealth of the United Kingdom is patent to everyone who knows anything of commercial affairs; and this is not confined to trade and commerce only. The agricultural classes have in many instances accumulated wealth by high farming, and having discovered the grand secret of farming—namely, that the more money expended judiciously upon the land, the larger will be the produce, and consequently the return. Thus, the limited quantity—in fact, scarcity—of land at all times in the market, whether to purchase or to hire, encourages competition, which is largely increased by the increase of wealth in the country. It is in the natural course of things that when a person—whether tradesman or otherwise—finds himself in the possession of a surplus of capital, which he does not wish to employ in trade or commerce, he looks out for land to be disposed of, which he purchases, less for the rent it will bring than as a safe investment, besides giving him a standing in society that no other kind or outlay can procure. The desire of possessing a portion of, or something connected with the land, is a principle inherent in mankind; and we see it displayed by all classes in society, from the poor

weaver who cherishes a few plants in his window to the owner of thousands of acres.

"Science has intervened to a great extent in the cultivation of the land, and indeed, by the increase of wealth, bids fair to produce a complete revolution in agriculture, with the help of machinery, which is already introduced upon the farm to an extent which supersedes manual labor to a large amount, and is still daily advancing. Those who can look back fifty or sixty years will be able to judge how far the capital acquired in agriculture has been accumulating during that period, when one of our best agriculturists had purchased and used a drilling machine, for which he paid 19l.; but he foresaw that the expense was too great to admit of its being generally purchased or adopted!

"Thus we see that while the influx of population has largely increased, if not doubled, the value of land has acquired a corresponding advance, as the same causes have produced appliances in the way of machinery and so forth to an extent little contemplated by any former generations of farmers. Despite, in fact, low prices for produce, an impetus has been given to agriculture which must still advance, until England becomes a vast garden conducted on scientific principles, and with improvements extending on every side."

### Remarkable Cases at the Last Assizes.

A farmer received serious injuries at a railroad accident near Komoka. The jury awarded him \$8,000 damages. Another person was awarded \$4,000. We are under the impression that jurors make the R. R. Co.'s pay too much when accidents occur to passengers; men are liable to accidents quite as much when travelling in their own conveyances.

The destruction of life or property at railway crossings, when men act with due care, should be smartly paid for by the company. But a mere accidental occurrence should be treated differently. We should ask for justice and should act justly towards the parties who invest their money in our country.

Another case was tried that from the novel mode of arriving at a decision, must be interesting. Plaintiff sued for recovery of a sum of between 400 and 500 dollars. The judge charging the jury instructed them to return answers to the certain questions. On their answering these questions, he declared the verdict for the defendant. The jurymen arose and said: "We agree that plaintiff should have the money sued for." But the judge ruled adversely, according to law, which empowers him to have certain questions answered by the jury, on which answers he was to decide the verdict. This is the first case we have noticed where the jury agrees on one point and the judge rules oppositely.

A person was placed in the Asylum in London to prevent him from interfering in an election. He escaped twice from the Asylum. He prosecuted the parties who caused his detention, and received one shilling damages.

### Blight in Fruit Trees.

The cause of the blight that has been so disastrous to many trees during the past season, we attribute to the lack of moisture. Pear trees blight more than apple trees because they emit more moisture from the leaves; some varieties blight worse than others from the above cause.

The best preventative is to plant such varieties as are least liable to blight; secondly, dig or plow the ground, and keep clean.—Underdrain the land. Excessive moisture prevents a proper growth of the roots.—Trees on clay soil are less liable to blight than trees planted on sandy soils.

### The Little Giant Threshing Machine.

We understand that great improvements have been made in the construction of this implement. We are pleased to hear it, as there is a growing necessity among many good farmers to have a threshing machine for their own work, as they would thus be enabled to keep their farms cleaner, and have fresh threshed straw for their stock, and could thresh just when they choose.

Mr. Sharman, the manufacturer, is sending them to all parts of Canada. For particulars we would refer you to his advertisement in the November number.

### Insurance on Sheep.

Farmers are continually losing sheep by dogs. They come to the township councils and claim damages for their loss. If they met with a loss from fire the Insurance Co. would not pay the claim if the farmer had neglected proper precautions.

It is our opinion that not one quarter of the sheep would be killed by dogs if proper precautions were taken, that is, of attaching a bell to one sheep in a flock of fifty or under, and two bells if over that number are kept in a flock. Would it not be well to compel farmers to take the necessary precaution, or to make them run their own risk and loss if they neglect it. Let us hear from some of you in regard to this suggestion.

### Prize Essay.

#### RAISING SHEEP

We offered a prize at the North Middlesex Exhibition for the best essay on agriculture. We give the present part of it, we may give more in a future number.

Although sheep can make a living on poorer pasture than other animals, yet they thrive better and are more profitable when kept on good rich pasture. A high and dry situation is more suitable for them than a low or damp one, let it be ever so rich. They should have access to water at all seasons of the year. In winter they should be provided with a comfortable shed, open to the South, and a yard or field to exercise themselves in, as they cannot bear confinement well.

Feeding racks and troughs should be provided, and the racks should be so arranged that the hay seed &c., will not fall upon their wool and injure it.

Their food should consist of good clover or timothy hay and pea straw, and they will thrive on the latter even though not very well threshed.

Oat and barley straw may be given occasionally for a change. A mixture of oats and peas should be given daily; from one half to a bushel per day for 40 sheep makes, a fair allowance. Roots should be given daily, especially towards spring, but should be fed sparingly to breeding ewes, unless they are well fed and sheltered, as weak lambs often follow heavy feeding of roots where insufficient shelter is provided; but after the lambs are dropped, they should be fed freely, as it induces an abundant flow of milk. Before going to grass in spring the tag locks should be carefully removed, it saves considerable work and often saves the animal a great deal of inconvenience.

Sheds should be provided with a number of box stalls, which can be used as hospitals to confine any weak or sickly one in. A ring in the ear, with the owner's name and the number of the sheep, should always be used, as they often prevent the sheep from being claimed by persons who are not the owners; and by the aid of the rings an account can easily be kept with each sheep, and if any one is found to produce weak lambs, poor fleece &c., it should at once be marked for sale; and those which are found to be most profitable can have their good qualities credited to them and treated accordingly.

By following out this method; by selling the inferior and keeping only the best, always using a good ram and feeding and caring for the flock properly, they may be wonderfully improved in a few years with but very little additional expense.

Shearing should be done as soon as the weather will admit, and should be well done; as it adds great to the appearance of the sheep. Each fleece should be carefully weighed and the proper weight credited to each sheep, and those which give the lightest weight should be fattened for the butcher as soon as possible. The weight of fleece can thus be increased in a short time, and the profit will increase in proportion; and the profit on a flock giving six pounds of wool may be double that of a flock giving only four, as in all animals it takes a certain return to pay expenses, and only what goes beyond that can be called clear gain.

About shearing time, lambs should be examined, and they will often be found covered with ticks; these should be destroyed at once. Miller's preparation will destroy them in a short time, and at but little expense.

Any animal suspected during the year should be examined, and means taken to effect a cure as soon as possible.

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ring the lambing season, should the weather be cold or wet, the flock should be carefully watched, and any weak lambs should be tended to at once. A small dose of key has a good effect in reviving their spirits. Another method is, to dip them in warm water all except the feet, until they get comfortably warm revived, and then rubbing them dry with a cloth. This method will seldom fail if they are taken while they show any signs of cold. They should be kept warm for a couple of days after this warm bath, as it is then they feel the cold very severely.

**Uses of the Garden and Farm.**

**AGRICULTURAL EXHIBITIONS—PRIZES.**

At the four great Agricultural Exhibitions in Ontario this autumn, there were awarded large sums as prizes for the encouragement of agriculturists. Similar prizes were awarded in the other provinces of the Dominion. The heads under which the prizes may be classified are Live Stock, Crops, Horticultural Products and Agricultural Implements—all, doubtless, conducive of good results, and promoting general agricultural wealth of the country. It may, however, be reasonably questioned whether a portion of the money so expended would not be more judiciously awarded in a view to the improvement of agriculture than in giving prizes for a bunch of calves or heifers, and a bushel of potatoes or corn. A liberal encouragement of the breeders of improved stock and the growers of crops of a superior quality. What is really needed is not the growing or selecting a dozen or so of roots, or the preparing an exhibition of a bushel or five bushels of grain, by picking out of it the inferior kernels and seeds of weeds, but it is the best culture of a crop or a farm, as a whole.

Such prizes as are annually given in Great Britain and Ireland for the good and successful culture of a field of turnips or grain, for the best cultivated farm within a prescribed district, do more for the encouragement of the improvement of agriculture than any number of prizes awarded for small quantities of farm or garden produce.

These farms so cultivated as to merit these prizes are examples of good farming throughout the whole district, and are incentive to improved agriculture to all who see them, and also to many who, from the published report of the judges, know the mode and successful application that have been deemed worthy of honorable record and prizes. The report of the judges and of others who examine the farms of the competitors are reprinted in the journals that are so early and so judiciously occupied with agriculture, and as may be seen in the ADVOCATE of November, are topics of no little interest in the agricultural papers of America.

In another column we give extracts from the official reports of the judges of the prize farms of members of the Banffshire Agricultural Society, Scotland, this autumn. We do not expect our Canadian farmers can follow in all respects the example of high farming of the agriculturists of Britain; but the success attained to these should stimulate us to incessant improvements, and let us bear in mind that it is only by gradual and slow advancement that Britain ascended to that pre-eminent position in agriculture that she now occupies.

**GOOD FARMING.**

Already have we spoken of, the lesson taught us by the season of drought through which we have just passed. If success in raising good crops is to be attained by good farming, to this the general superiority of the crops in England to those in America is mainly due. While 13 bushels of wheat to the acre is about the average, according to the U. S. Agricultural reports, the average yield in England this year is computed at 29 bushels at 61 lbs. per bushel. Mr. J. B. Lawes, in the *Times*, incidentally thus points out the advantage of farming well.—The English wheat crop of 1874.—Obviously the season has been adapted for the production of enormous crops under favorable conditions, whereas under unfavorable conditions the produce has been much reduced, or even below the average. It may be judged, that on the well-cultivated and heavier soils the yield will be generally very large; but that on a certain but unknown proportion of these it will be considerably reduced by "blight." On gravel and very light lands a deficient crop will be

the result of a deficiency of rain. And it may be concluded that even heavy soils, if badly farmed, will generally yield only, or under, an average.

The *Telegraph*, at St John's N. B., in an interesting description of that province, gives full details of the quarries and plaster mills in Hillsborough. In Nova Scotia and New Brunswick are the only known deposits of gypsum suitable for calcining on the Atlantic coast. In Virginia, and New York are found small formations of brown, earthy gypsum without marked value in itself, and so remote in the interior that even with an additional charge of two or three dollars per ton, provincial plaster would be the cheapest. These were shipped from Nova Scotia to the American Atlantic Seaboard, manufactured in 1870 about 148,000 tons of rock plaster, valued at \$148,000. This rock plaster when manufactured, possessed a value at least of \$900,000. The mills at Hillsborough are actually employed in its manufacture, but its financial prosperity is impoverished by the duty levied on it, when manufactured in the United States, where the principal market is.

**TWO CROPS OF POTATOES IN ONE YEAR.**

The *Orillia Packet* states, that A. McDonald, of that town, showed the first new potatoes later part of June, 45 days after planting. On the first of July he planted Early Rose potatoes in the place of those raised, and has had a second crop of good fine potatoes.

**LARGE BRAHMA COCK.**

An English poultry breeder is informed, that a Brahma cock is on Exhibition the present season in that country, which weighs over twenty pounds. One party claims for him the enormous weight of twenty-two pounds.

**SWINE STATISTICS.**

The following table shows the number of swine of all ages in the States named, as reported by the Department of Agriculture at Washington.

States.	1874.	1873.
Tennessee.....	1,420,900	1,596,600
West Virginia.....	334,000	351,600
Kentucky.....	2,008,000	2,173,700
Ohio.....	2,017,400	2,227,000
Michigan.....	510,800	513,500
Indiana.....	2,496,700	2,713,900
Illinois.....	3,409,700	3,706,300
Wisconsin.....	618,800	658,400
Minnesota.....	201,200	209,600
Iowa.....	3,693,700	3,847,700
Missouri.....	2,603,300	2,656,500
Kansas.....	484,600	457,200
Nebraska.....	128,500	121,300
California.....	448,600	427,300
Oregon.....	171,200	163,300
Total.....	20,547,400	21,783,760
Decrease.....	1,236,360	

The Texas cattle disease still exists at Stafford Springs, Conn. One yoke of oxen, belonging to the Westmore Lumber Company, have been slaughtered by Professor Cressy, of the Massachusetts Agricultural College, and ex-Governor Hyde who have gone to make an examination. The state commissioners have examined two of the suspected head of beef cattle belonging to the Dimock Brothers, and pronounced them healthy. The remainder of the herd will be butchered under the direct supervision of Commissioner Hyde. The ease with which the disease is communicated is illustrated by the fact that one herd was infected by a yoke of oxen used to switch off a car containing some diseased animals.—E.

**OUR EXPORTS OF ANIMALS.**

The drain of animals from Canada into the United States has been very large of late years. If fact, the Eastern States depend to a very considerable extent upon the Province of Ontario for their supply of animal food.

Since Confederation took place, the value of our exports coming under the head of "Animals and their Products" has more than doubled. This will be seen at a glance by reference to the returns, which are as follows:—

Year.	Value of exports.
1865.....	\$6,893,167
1869.....	8,769,407
1870.....	12,138,161
1871.....	12,581,925
1872.....	13,416,613
1873.....	14,243,017

This is rapid progression in this department of farming, and there is reason to believe that ere long the exports of this class will be

greater than those classed as agricultural products, such as wheat, barley, and other grains. There is very little difference now, and that is likely soon to disappear as our own new lands begin to deteriorate for grain-raising. The number of animals exported from all parts of the Dominion during 1873; was as follows:

	Number.	Value.
Horses.....	8,782	\$922,233
Cattle.....	25,638	655,594
Swine.....	5,355	84,531
Sheep.....	315,832	957,721
Poultry.....		88,942

These figures indicate quite an exodus of live stock, but there appears to be no scarcity, and if the proposed Reciprocity Treaty becomes law, the drain will doubtless become still greater. During 1873, we also purchased a considerable number of animals from the United States. The returns are as follows:

	Number.	Value.
Horses.....	1,359	\$92,808
Cattle.....	2,757	70,491
Swine.....	5,355	84,531
Sheep.....	5,770	16,134
Other Animals.....		3,753

These imports are not large, but they are larger than we supposed they would be.

**INCREASING TRADE IN FRUIT.**

On Saturday last some seven cars were loaded with apples at this station alone, and on Monday and Tuesday there must have been fully as many each day. The total export of apples from Galt this season will reach 2,500 barrels. Mr. Bourcher alone shipped 1,500 barrels. These figures show that the trade in this fruit is larger in this section of the country.

**P. E. ISLAND PROSPEROUS.**

According to our private advice from P. E. Island, the province never was in a more prosperous condition than it is at present. Though a wet spring made cropping late, the harvest is one of the best secured for many years, and the weather for saving it has been most propitious. Even ungrateful man could desire nothing better. The wheat crop is better than it has been for many years; it is believed that the yield will be double that of any season since the midge made its appearance. As a consequence, it is understood that the import of flour into the island next year will be reduced by at least twenty-five or thirty thousand barrels. Barley and oats are also an average, if no more. Turnips and potatoes, too, are excellent. The mackerel fishing is fully double that of any former year. To cure the enormous catch, barrels had to be imported from Nova Scotia and the United States. Ship-building has been prosecuted with vigor, and we trust will prove remunerative. Trade generally is not counted very brisk, and yet it may be good, if we judge from the large increase in the revenue. The Islanders have abundant cause to be thankful and we are sure they never were in a better position to face the coming winter.—*St John Telegraph.*

Mr. Henlock Young, of Guelph township, has given the Guelph *Mercury* two apples which are a curiosity. In one of them a blossom grew right from the hollow near the stalk, and was well formed when the apple was plucked. The other contains near the stalk an excrescence like a small apple, and from that also grew a blossom, which came out into full flower. Both apples were full formed. This freak of nature is, to say the least, curious.

"Sharp Practice."—Under this heading a correspondent of the *Country Gentleman* describes several tricks usual in buying hops. One of these is for a buyer to purchase the crop of an old grower, nominally at a price several cents under the real market price, but with a "gift" of money enough to make the full price—the bill of sale showing the low price. With this bill of sale the buyer induces other growers to sell at the price named in it. On learning of the trick from the first seller, one of the ones deceived by it says that "he would like to kick that agent." This is a very natural feeling, but we cannot see why it should be directed against the buyer alone. The party who sold the hops was equally guilty—the main difference being that the buyer was deceiving strangers, while the seller was deceiving and wronging his neighbors.—*Western Farmer.*

**Correspondence.**

**BROWNELL'S BEAUTY POTATO.**

SIR,—As you wished to know last spring, when advertising the above named potato, what the result would be from different sections of the country, I give you the following:—

I received from you half a pound; it had twenty eyes. I made twenty sets, put them in a moderately rich loamy soil. They had the appearance of the Early Rose for rapid growth and early maturity, but for length and strength of stocks they resembled the Garnet Chillis. When dug there were one hundred and sixty-eight; three or four of the largest weighed almost a pound each. The yield was decidedly beyond anything I have had in the past and anything heard of in this section. My wife cooked a few for the table, and we found them quite satisfactory. The Japan Peas you sent never came up.

J. ROADHOUSE.

Bear Brook, Oct. 31, 1874.

**From British Columbia.**

**NEW SEED WHEAT.**

SIR,—With this mail I send to you a small quantity of spring wheat, raised here this year; also, a small quantity of fall wheat.—The weather here is very cool in summer, compared with that of Canada, the hottest day this summer being 85 in the shade; the weather is very mild now. We have had one light frost, not hard enough to freeze balsam flowers.

THOS. HENDERSON.

New Westminster, B. C.

[Our British Columbia correspondent will accept our thanks for the information he sends, and also for the grain. The samples sent are much finer than the grain grown by us; the heads are large and well filled. In one of the heads we find the wheat is set four grains in a row, the majority being three; our grains generally go about two, and sometimes three. We have placed the wheat in the hands of the following gentlemen, who have kindly consented to test it for us and report concerning it:—Major Bruce, London Township; W. Blyn and G. Jarvis, Westminster. Thus it will be tried on different kinds of soils. We shall be pleased to hear more accounts from British Columbia correspondents in regard to that country.—Ed.]

**THE FARMER AND THE RAILWAY.**

SIR,—As Mr. Sutherland was driving a span of horses across the G. W. R. R. track on Saturday evening last, the engine struck the horses and wagon, killing the horses and smashing the wagon to atoms; the driver was thrown 65 feet from the spot, and most probably will die. Mr. S. was a steady, sober man, and took as much precaution as any other person would.

Now, sir, I wish you to publish this, as you claim to be the farmers' advocate, and I want to know if we are to be killed on our own grounds without any just reason.—I have met with many narrow escapes from crossing railroads, and still fear mishaps. I think I ought to have a right to travel the Queen's highway without being in danger of losing my life.

I hope you may bring this before the public in such a way as to give us greater safety.

C. R., Dorchester.

[We are well aware that farmers' lives are often endangered by the railroad, and believe that not one-tenth of the loss of life is made known beyond the locality where it occurs. The subject is of importance, and should be discussed at the farmers' meetings. Even the Patrons of Husbandry might properly debate on this subject. We presume the question would result in greater protection for farmers, at the expense of a higher charge for passengers, as it is the rapid passenger trains that send the farmers to their long home. We, as farmers, have a right to the highway. The railway is an intruder on our rights; it is their duty to give us safe crossings. Guards or gates should be kept at every dangerous place. In England the crossings are by means of bridges. In France the protection from danger is effected by guards at each crossing.—Ed.]



AGRICULTURAL EXHIBITIONS.

SIR,— feel a very great interest in the welfare of the ADVOCATE, and would like to send you a few lines from the eastern outskirts of our province; but I feel something like the old Scotch woman that went along with the regiment to fight, broom-stick in hand—"not that I can do any gude, but to let ye ken what side I'm on."

I want in the first place to corroborate the statement of J. W. Smith, regarding the crops around Ottawa. It is a very fair and correct account. Crops are by no means a failure, although the weather has been extremely dry.

I also want to say something about Township Societies, and I am pleased with the side you take in the matter. We have kept up a Society in this township for several years with spirit and success, although we get but little aid from Government, and I can safely say that our annual Exhibition would be no disgrace to any township in Ontario, and these, I think, do equally as much good, if not more, than the larger societies. There is one thing that I would like to get some information on—whether it would be best to give up judging field crops altogether, and have samples brought to the Exhibition instead? Some think it would, as there is so much expense and dissatisfaction in sending judges around. Perhaps you or some of your readers could give some information on this point.

We expect to have a great time down here next fall at the Provincial Exhibition. I hope you will pay us a visit, but I don't know how we will find you out in the crowd. Could you not wear some kind of a badge, and let us know through the ADVOCATE.

R. A. ROE, Clarence.

[In regard to the examination of growing crops, we hope some of our readers may take up the subject and send in an article against the practice. We wish to have such subjects discussed. The plan is not followed in this vicinity. Our opinion is that it is a good plan, but judges should be selected who would look on their task as an honor, and who would not require more than the expenses of a vehicle to take them to the different places, and their dinners. We hope and believe you will have a good Exhibition at Ottawa next year. If all is well we intend being there. Perhaps we may wear a fool's cap or some other conspicuous mark, such as having one leg of our pants or half of our coat of a different pattern than the other. Perhaps you may see us too soon, too often and too long.—Ed.]

INQUIRY.

SIR,—I have a valuable horse which has a lump growing on its side. I think it is a burst. If you or some of your correspondents would please give some remedy through the columns of your paper, I would be very much obliged. I suppose the sooner it is remedied the better.

A SUBSCRIBER, Lancaster, Ont.

[Cannot say without examination or fuller description what the lump may be. Most probably it is a rupture; in that case it should be operated on surgically, and a skilled person should be employed, otherwise you may lose the animal.—J. WILSON, Veterinary Surgeon, London.]

SIR,—Please inform me through your paper if a thorough-bred Berkshire pig is entirely black.

D. B., Richmond Hill.

[The old Berkshire hog was a mixed-colored animal. We have never yet seen an imported Berkshire without white hairs.—Ed.]

BEST AND CHEAPEST FENCE.

SIR,— The following plan in my view, is the best as well as the cheapest. Cedar posts eight feet long; should cedar not be convenient, take split oak about five inches in diameter, the part which goes into the ground should be either burned or dipped in coal tar, which can be had at the gas works for a trifle. Posts should be set six feet apart, and three feet deep. Then take the team and plow, and start with a light furrow eighteen inches from the post on each side, then a second furrow good and deep. Then with a shovel throw up to the posts, which when done, will form a nice round ridge; the posts will now be nearly three feet and a half in the ground, when ridged up in this manner its making it awkward for horses or cattle to jump over. Now the posts are in, we will take No. 9 wire fasten to

the post with small staples, and as a general thing almost every handy farmer has few blacksmith tools about him and can make the staples himself out of 3/4 rod. Put on four wires, the first about four inches from the ground, second six inches, third ten inches, fourth fifteen inches, the fifth to be a 2 by 4 scantling spiked on top of the posts. A set of spring wire to be put in about every 25 rods, to allow the wire to contract in winter and expand in summer. Now we have a fence that does not require to be repaired after every little breeze of wind; also one that harbors no snow drifts. Neither horses or cattle can throw it down. In the first place it costs less to build this kind of fence than any other; second place much less to keep in repair. We will now sum the cost of material required; say 25 rods will take 66 posts, at 9 cents a piece would be \$5.94; No. 9 wire \$5.00; 26 1/2 feet of 2 by 4 hemlock scantling at \$8.00 per thousand would be \$21.10 one set springs 40 cents; staples (if bought ready made) and spikes, \$3.00; coal tar, \$1.00. The cost of making holes setting in posts and putting on wire will be about \$5.00. The whole cost of 25 rods comes to \$22.45. We will sum up the cost of the same number of rods of rail fence, the timber it takes to make rails for 25 rods is worth about \$33.00 the splitting is worth \$3.00 more; if staked and capped there will be other \$3.00 in all, \$39.00; and say nothing about making blocks, hauling the rails and putting them up, a nice little sum of \$16.55 in favor of wire fence.

Fern Hill.

D. J. THOMAS,

What Shall be Our Grain Crop in the Coming Year?

Even now, in the early winter, it is well to look forward to the spring labor, and the crops of autumn. He who looks before him, is pretty sure to be forehanded with his labor. The provident farmer has mapped in his mind, every field in his grounds, with the quality of its soil, natural and improved, and has designed the crop for every part of his farm. He knows that there is a necessity for a variation of crops, and that the soil after a time becomes wheat-sick, or potato-sick or even clover-sick; we use the term sickness of the soil, as one not unfrequently used, and as expressing very plainly what those conversant with the soil know, sometimes too well. He learns that his turnips do not yield as heavy a crop as they did some years ago; and as a remedy for light yield of root crops he sows less turnips, and cultivates mangolds or beets instead. With his grain crops also he finds it profitable betimes to make a change.

There is, besides, something more than the knowledge of agriculture, necessary in order that the cultivation of the soil may be fairly remunerative. A judicious political economy of the Legislature is necessary to the prosperity of the nation, and in like manner must we farmers pursue a wise financial policy. Our fields may produce abundant crops, but if we cannot dispose of our surplus produce at a fair paying price, what will the fertility of our soil profit us? Of this the farmers in the Western States have had ample proof when corn only brought them in a return of twenty cents per bushel.

With us Canadian farmers, wheat has always been the staple product. We have had pretty fair produce, at least a better average than our neighbors, and we have had a good demand, and fair prices for all we could spare. Our wheat brought the English gold sovereigns, or their equivalent, to our cash-box. So far, well; but let us consider if wheat be the most profitable grain for us to grow, or if other grain may not be substituted, in part, for wheat, to our greater profit. First, let us enquire the yield of wheat and of barley. We take the report of the G. T. R. R., for the average yield throughout the country. We should have had reports from the Department of Agriculture—but great bodies move slow—of barley the average yield has been, as shown by us in last issue, from 25 to 40 bushels per acre,—say an average of about 32 1/2 bushels; of wheat the average is about 22 bushels—a difference in the yield of bushels of 10 in favor of barley. Were the same price paid for both, barley would, from the returns given, be the most profitable; but barley also commands the highest price. In this market the highest price for wheat is \$1.60 per 100 lbs., and for barley \$2.15. But as the yield of wheat and of barley has been given in bushels, and the bushel of wheat is the heavier, let us enquire the price of each per bushel. In Toronto, wheat is reported as sold from 93 cents to \$1.03; per bushel, barley from \$1.12 to \$1.13. In Chicago the *Prairie Farmer* says that wheat sold for cash from 77 1/2 to 86 1/2 cents per bushel, and barley from 90 cents to \$1.22. Not only

then is the average yield of barley much greater than that of wheat, but the price is also higher; and there is a good demand for barley not only in the home market, but in the United States as well, where Canadian barley is much sought after for malting.

We do not say to our readers, sow barley and not wheat, but we advise you to consider with us if it be not advisable to sow less wheat and more barley—to depend less on one variety of grain. Were the high price of barley merely adventitious, it would be unwise to change our crops in consequence, but the demand for barley has been increasing for some time; there has been an increasing consumption of malting barley in England, with an increasing advance in its price, compared with wheat. This is fully shown by the reports from the English markets. Malting barley formally was sold in England for about two-thirds the price of red wheat; but for the last two years it has been within a few shillings per quarter of as high a price.

December on the Farm.

In this month we have the shortest days of the year, and then the indications of a coming year in the lengthening days. In our Canadian climate there is not the same pressure of hurrying the work of the farm-labor that we experience at other times, and the shorter days are well designed for the relaxation in our labors. At other seasons the necessity of making the most of every hour is such that they who have been straining every nerve for months need for a little time the unstringing of the bow. But December, though a time of less labor, is not one of idleness for the farmer.

CARE OF STOCK.—No little of our labors during the spring and fall has been the preparation for the winter care of stock, and in proportion as we have been diligent in that preparation, will our labors now be the lighter. Cattle in the stalls and sheds require good feeding and careful attention.—Keep up their condition at all times with needed food and warmth. This, our advice in November, is our advice now, also. It is in season throughout the winter and the stock that has been properly cared for till the present, will be easier fed and kept in good condition than those that have been neglected. The stables should be warm and properly ventilated. An animal, though getting the best food, and in proper quantities, cannot thrive without the necessary warmth; and with that needed accompaniment a less quantity of food is necessary.—Food is needed not only to support the body, supplying the wants caused by the incessant wasting of its substance, and to add to its weight; it also is the source supplying the heat necessary for the continuance of animal life. Cattle not having sufficient warmth need the more a greater quantity of food to supply this want, and consequently much food is thereby wasted. In providing for the warmth of your stables, do not neglect their proper ventilation; without it they must be injurious to the health and well-doing of their occupants.

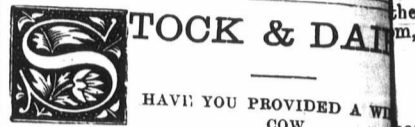
The cutting and hauling of wood, with the care of cattle, and any little carpenter work and repairing of harness are the work of December on the Farm. It should also be a season of real enjoyment. The social pleasures of the long winter evenings are relished by all.

This is the time to make up the farm accounts. Let not the new year come till you have known how far the farm has for the last one been profitable, and examine the expense of each crop and its value. Every farmer should be able to say what profits are to be realized from a field of wheat, or oats or barley; and how much a bushel of potatoes or turnips may cost him when all the expenses are deducted.

THE GARDEN.—Of the garden we may say it sleeps, but we hope for a bright and pleasant awakening. Securely covered with their protective mantle of snow, the flowers await the enlivening breath of spring. For the present we enjoy our window garden all the more that the winter is abroad. Light, moderate heat and watering are the requirements of the winter flowers in our window garden. The window for the flowers should, when possible, have a southern or an eastern aspect. Let them have all the light that the few hours of sunshine allow them. It is as necessary as heat. Let the heat be moderate, less during the night than the day. Let the plants have fresh air when-

ever it is practicable, taking care that be not too much exposed to a cold draught. Use lukewarm water in watering; cold water is injurious. To prevent the pores from being choked with dust, it is needful that we have frequent washing. Not only for the health's sake is this necessary. As we value them for their beauty, we should see that their beauty is not concealed by that of dust.

We would call attention to Mr. Heacock's sale of Short-Horns, which takes place this month. Mr. Heacock has devoted considerable time and money to build up a herd. He purchased several head of blood from Mr. E. Cornell, of Ithaca, N. Y. He has been using a fine Bates bull, bred by Mr. Alexander, of Kentucky. He has purchased animals from many other breeders. His sale ought to draw purchasers who want good animals.



Who is not fond of milk in some shape or form? It would be difficult to find the individual who is not fond of it, and yet, as a rule, milk is harder to get in the country than in the city, if a person is more fortunate as to have no cow. Instead of having the milk delivered us in the city, it must be brought by the individual who is obliged to pay higher prices for it, who is often obliged to pay higher prices for it than in the city, even if then the delivery of milk be not considered a favor. The reason is that farmers, who of themselves should have a bountiful supply, often restrict themselves in the winter to a small quantity of milk, obtained from the Summer months, that are roughing in the yards entirely out of the hands of the animals to be fed.

The horses are kept in comfortable stalls and carefully fed, bedded, curried and brushed. The fattening cattle, sheep and hogs are carefully cared for, but the cow which is expected to furnish an important nourishment, and the basis of many delicacies to the family, is too often left to shift as best she may. It is no wonder that she doles out grudgingly small and decreasing quantities of milk.

There is no animal kept in the winter on the farm that should receive, nor that will do better for extra care, than the too often neglected cow. She is a machine that responds to the demands upon it in exact proportion to the perfectness of construction and the care bestowed on its working parts. If warmly housed and fed liberally with plenty of rich food, including, if possible, succulent vegetables, this is done, there is no difficulty in always having an abundance of rich milk in winter. If roots cannot be obtained, bran should be provided, to be given in the form of a slop; so that the animal can drink it; for an abundance of water taken by the cow is largely, not only to the quantity of the milk, but also to the quality, since it enables the animal to assimilate the products of the food more fully than it otherwise could.

By this we do not mean that the cow should be supplied with diversified food and plenty of liquid, and giving ten to fifteen quarts per day of milk, will give milk as rich, quart for quart, as the animal fed on rich dry food, with only a sufficiency of water to enable it to pass through the animal. In this last case the small quantity obtained will be exceeding rich; but an animal properly kept, and in a flow of milk, will be found to furnish the elements of milk very much in excess of the poorly cared for, however richly fed. The lack of milk in winter among the average farmers of the country is one of the crying evils of the homestead. When once the farmers learn how easy it is to have an abundance, and that the daily care bestowed is not onerous, thereafter but little difficulty will be experienced by the housewife in inducing the purchase of a new cow when needed, if circumstances were such that the farm failed to provide one. Generally if no better plan can be realized, extra care and feeding to a couple of the later calving cows, will carry the household along till the new cows begin to come in during the latter part of winter. At all events, those farmers who have not already provided for an abundance of milk this winter, should immediately do so. Plenty of milk will save in so many ways ample pay all the cost, and still have a large margin beyond.

Michigan Farmer.

A PROSPEROUS TEXAN.

In Southwestern Texas, there is a cattle raiser who has lived there twenty years. On going there he picked up a dozen cows, and branded them. He had no land, but was the possessor of a wife, two or three children, and a few dogs and two or three horses. He kept

1874.

his cows and lived in several years, sustaining of game and the sale of 30,000 head, and ranging over a family of nine children,

oldest child is a girl, who can rope a steer, kill a dog, and handle a horse. Her house is a nail keg, and she is a nigger. He has been using a fine Bates bull, bred by Mr. Alexander, of Kentucky. He has purchased animals from many other breeders. His sale ought to draw purchasers who want good animals.

WINTER FEEDING

been the habit with the entire winter market, of which we are more than half supplied under foot. We have more per ton than hay, and the latter, if it is bulky, let out straw, wheat, or cut up finely with wheat bran. A little labor will do or horses at a much larger expense. A large quantity of this feed, if mixed with the feed of other animals to be fed, will do it thoroughly.

the name of Yorkshires became popular, and most popular in a strike of the large and the 'umber of the small Yorkshires are about the feed class, the aristocratic authority, with smothered, with small whiter, but large whites being between the two. Yorkshires was of the feed up to eight probably with much prolific breeder. It believe in the economy of the large breeds



able, taking care that... exposed to a cold dra... water in watering; col... To prevent the possib... it is needful that... washing. Not only in... this necessary. As we... several years, sustai... of game and the sale of skins. In May, he owned 30,000 head of cattle, dully and ranging over the plains. He has a family of nine children, five of whom are

1874.

attention to Mr. He... which takes place... Heacock has devoted... money to build... several head of... E. Cornell, of Ithaca... a fine Bates bull, b... of Kentucky. He... from many other... ought to draw... good animals.

OCK & DAIRY

YOU PROVIDED A W... COW.

of milk in some shap... difficult to find the in... dry hay, of which much is wasted... in the city, if a person... more per ton than hay, it is poor... delivered us in the... by the individual... obliged to pay higher... even if then the deliv... erer a favor.

at farmers, who of all... bountiful supply, often... winter restricted to... and from the Summer... in the yards entirely... kept in comfortable... bedded, curried and br... tle, sheep and hogs an... but the cow which is... an important nourish... some delicacies to the... shift as best she may... she does out grudging... ing quantities of very

al kept in the Wint... receive, nor that will... e, than the too often... shine that responds to... in exact proportion to... the Farm.

struction and the care... parts. If warmly hou... with plenty of rich food... succulent vegetables... is no difficulty in alw... obtained, but should... in the form of a tim... inal can be made to... er taken by the cow... the quantity of the mi... quality, since it enab... the products of the fo... otherwise could.

mean that the cow m... and plenty of liqu... five quarts per day... as rich, quart for qua... dry food, with only... to enable it to pass... In this last case the... ained will be exceedi... properly kept, and in... found to furnish the... much in excess of the... wherever richly fed.

in winter among the... the country is one of... e homestead. When on... ow easy it is to have... t the daily care bestow... after but little diffic... by the housewife in... of a new cow when need... e such that the farm fa... generally if no better plan... tra care and feeding to... the new cows begin to com... r part of winter. At all... r. It was not till 1851 that the... dance of milk this winter... do so. Plenty of milk... any ways ample pay... ve a large margin beyond.

EROUS TEXAN.

Texas, there is a cattle... there twenty years. On... d up a dozen cows, and... had no land, but was the... two or three children, and... or three horses. He kept

his cows and lived in a hand-to-mouth... several years, sustaining his family by the... of game and the sale of skins. In May, he owned 30,000 head of cattle, dully and ranging over the plains. He has a family of nine children, five of whom are

WINTER FEEDING.

been the habit with too many to use... in an impoverished manner... the entire winter many cattle get lit... dry hay, of which much is wasted... under foot. When corn meal... more per ton than hay, it is poor... much of the latter, but as our ani... food that is bulky, as well as un... wheat straw, corn stalks, ... be cut up finely to be used with... wheat bran, which is still... little labor will enable any one to... horses at a much lower rate than... hay alone. A large box should be... mixing the feed. Into it put an... this finely cut food, proportioned... of animals to be fed, pour on enough... to wet it thoroughly; for every... bushel of the cut feed one... corn meal, and one quart... mix all well together and... to retain the strength. Let it... cool enough for use. For cows give... this quantity of meal and bran... ed with advantage. Cows may be... bushel of this mixture twice daily... one small feed of hay or corn... keep them in better order, and... more milk, than the old mode of feed... less expense. Swamp hay or other... in this way is eaten greedily... better than the best dry hay.

THE YORKSHIRE PIG.

several classes of hogs in England... the name of Yorkshire. The... where became noted in England... ago and importations were made... into this country. But no... were made to create any excite... ard to them and it was not exten... The small Yorkshires, or as... times called, Prince Albert Suff... introduced about fourteen years... racted considerable attention.

also a small breed peculiar to... and Mr. Mangles. "One of the first... to time to create any excite... ard to them and it was not exten... The small Yorkshires, or as... times called, Prince Albert Suff... introduced about fourteen years... racted considerable attention.

Yorkshires was of great size. It... fed up to eight hundred pounds... bably with much profit. It was... prolific breeder.

small or at most a medium breed, that can be fed up to two or three hundred pounds at nine months old, and then be ready to put into the pork barrel.

The Yorkshires exhibited by Capt. John B Moore at the Concord cattle show, were among the finest specimens of the pig family that we ever saw—Mass. Ploughman.

WINTER CARE OF DAIRY STOCK.

To illustrate the economy of comfort in the winter care of stock, I will state what a long and close observation in wintering dairy cows has developed. A half century or more ago the farmers of New York were less careful of their animals than they are now. It was no uncommon occurrence then for farmers to let their cattle run all winter with no other protection than a board fence or an open shed at the side of the yard, and when they did so, it cost according to size, 2 1/2 to 2 3/4 tons of hay to winter a cow, averaging for 26 weeks 27 to 30 lbs. of hay per day. When they built barns and sided them up with green lumber, so that when the boards shrunk the cracks between them were half an inch or more in width, and the stables were so arranged that the wind that whistled through these cracks swept all the heat radiating from the bodies of the stanchioned cows up into the loft and out at the cracks above, the case was not much improved. Some saving in waste was effected, and that was about all. But when these open barns were succeeded by tight ones, boarded with matched stuff well seasoned, and the stables so arranged as to utilize the heat radiating from the cows' bodies, there was a great diminution in the cost of keeping. A saving of one third of the keep formally used was effected. Eighteen to twenty pounds of hay a day kept the cows in better condition in the comfortable stables than twenty-seven to thirty could in the old ones or in the open yard. When tight barns for cows began to be built in central New York, dairymen were perfectly surprised at the saving it effected in fodder. I have, time and again, heard them declare from estimating, what I found to be true by actual weighing, that a tight and warm stable saved fully one third of the fodder formerly used in the open ones for a long time so generally in use. I would suggest, if they have not already done it, that the dairymen and stock-keepers who have suffered from drought cannot in any way cheapen the cost of wintering their stock so much as by providing for them the most comfortable quarters they possibly can.

But there is one consideration which should not be overlooked in arranging for a tight barn, and that is proper ventilation. The owner of a tight barn, unless he makes proper arrangements of this kind, will soon have what is fitly described as a "foul, reeking stable." Cold air is not necessarily bad air, nor is warm air necessarily bad air, although the chances are that air made warm by animal radiation of heat will become vitiated. The safeguard is effective and properly arranged ventilation. This ventilation is essential to comfort which Professor Arnold so wisely advocates, and every man who takes measures to profit by the above suggestions this winter should study his plans carefully to gain good air without having a chilling current strike his stanchioned animals.

COWS—THOSE THAT PAY.

A good cow costs but a trifle, if any more to feed and keep than a poor one. The difference in the value of their product should be credited to her as so much interest on her estimated valuation. To illustrate:—If a cow simply yielded enough to pay her way and nothing more, she is worth only what she would bring of the butcher. If another yields a net profit of \$20 a year more than her keeping, she is as good as \$200 at interest. Still, farmers are sometimes so negligent of their own interest as to sell their best cows for a mere trifle more than one that is nearly worthless. This is not as it should be; and so long as the practice is continued the stock of the country will deteriorate. A good sentiment is expressed in the couplet "Beef a poor cow ever, sell a good one never."

One cow of a herd may be dear at \$200. Different cows in same herd, with the same feed and treatment every day, often vary 100 per cent. in their profits. Weed out the poor, perpetuate the good. The stalk of the wild apple may be made to bear the russet, the greening or the golden pippin. Imported cattle, or cattle taken into an entirely different climate from that in which they were bred, seldom show the same degree of excellence as they possess at home, unless given special care. Old cattle frequently die before getting acclimated. This is strikingly illustrated by shipping them south, especially in the spring of the year, if the animal is fat. The arterial system first takes cognizance of the change; the

pulsation increases to twice its normal rate, fever engendered and death ensues.

No animal should be required to drink water which the owner himself would refuse, and especially so if that animal is the cow from which you hope to make good butter. It is sufficient on this point to say that the pure water is an indispensable article to the success of the dairymen, for good butter or cheese can not be made where good water cannot be obtained.

ROOTS FOR STOCK FEEDING.

In Brittany the parsnip is becoming the favorite root for stock feed. And its culture is extending. In the Channel Islands this root forms a large portion of the fodder of the Jersey Guernsey and Alderney cows, and much of their value as rich milkers is undoubtedly due to the use of this root for a long series of years. It is well known to physiologists, says the N. Y. Tribune, how great an effect upon the condition of a breed of animals is caused by a long period of careful feeding, and this is a conspicuous instance of it. This root in many parts of France is substituted as oats for horses, 16 pounds being given a day with the best effect. For pigs it is also largely used, 9 pounds of cooked roots being fed four times a day. One great advantage of this root is its hardness; the supply for spring may be left in the ground all winter, and in the best condition to harvest at any time when needed.

HOW TO FEED PIGS.

I used to keep them in my younger days, to furnish meat for my family and to sell to get a little spare cash. The kind with small bones, small ears and short nose, that with good keeping, at a year old would make about three hundred and twenty-five pounds of pork, was my favorite (the first I ever fattened weighed 260 pounds at eight months old.) Milk and potatoes are the best food for pigs after they are weaned, to make them thrive; they also relish a few grains of corn as well as a squirrel does a few nuts, as they grow along. In the season for it, they should be supplied daily with fresh green weeds or clover; a few green corn stalks are also good to feed them in their season and the slops and refuse of the kitchen with a little meal are also good. With this food they should be fed liberally, but not to surfeit, and keep growing right along in a thrifty condition till about two months before killing time, during which they should be fed liberally with more concentrated and fattening food. Boiled pumpkins, thickened while hot with corn meal, are excellent for them, so also is sliced sweet apples, thickened with meal, and so is scalded meal alone; and some people think that, for some days previous to slaughtering time, they should be fed with dry corn and pure cold water, as these make the meat harder and sweeter.—R. Smith, in Germantown Telegraph.

CARBON FOR HOGS.

Turf, Field and Farm says: No observant farmer has failed to notice the avidity with which hogs, whether in confinement or at large, will devour quantities of rotten wood. This decayed wood is but a form of carbon; and carbon being an antiseptic, the instinct of the animals leads them to eat it, as the instinct of dogs urge them at times to eat grass because of its sanitary effect. On one occasion the writer had a pig which weighed about forty pounds, put into a pen and carefully tended in every way. The allowance of food was, with the chance offal from a small kitchen, sixteen ears of large southern corn per diem, given twice a day. Having a kiln of charcoal in the woods close by, I determined to try how much of this charcoal could be converted, by aid of the digestive organs of the pig, into fat, which is but another form of carbon. By degrees the supply of corn was diminished and carbon substituted for it, until finally the corn was reduced to eight ears. At the end of nine months a pig was butchered and weighed, net, two hundred and five pounds, and the lard and meat were of exceptional fine quality.

EXPERIMENTS IN FEEDING CATTLE.

The following experiments were made, suggestion of Mr. Flagz, Lawrence, commencing November 17, 1873, continuing seventeen weeks, and ending March 17, 1874.

The steers, fifteen in number, were short-horn grades of medium quality, bought from farmers of the neighborhood the previous summer, and were, with the exception of No. 13 and two calves, past two years old. Lot No. 1.—Steers Nos. 1, 2, 3, 4, 5, and 6, were fed in the lot with thirty others, without shelter of any kind, 24 pounds of husked corn in the ear in boxes, and timothy and clover hay in racks ad libitum, they also had ready access to water at all times. No. 1 weighed in November 17th, 1,120 pounds, gained 169, and weighed out, March 14, 1,290. No. 2 weighed in 1,100, gained 230, weighed out 1,330. No. 3 weighed in 1,200, gained 160, and weighed out 1,360. No. 4 weighed in 1,500, gained 210, and weighed out 1,360.

No. 5 weighed in 1,290, gained 260, and weighed out 1,550. No. 6 weighed in 1,110, gained 240, and weighed out 1,360. Total gain of six steers fed 17 weeks, 1,260, an average gain of 210 pounds.

Lot No. 2 consisted of four steers, each fed in a roomy box stall, in a warm but well-ventilated barn. They were turned out to water daily at ten o'clock; their stalls were then cleaned and littered, and they were returned at eleven o'clock. No. 7 was fed six pounds of dry corn-meal morning and evening, and in addition five pounds of chopped clover hay of superior quality, and at noon fifteen pounds of sugar beets. This steer having gained but thirty pounds in eleven weeks, his feed was changed to twenty-four pounds of corn in the ear, and hay the same as before. In the remaining six weeks he gained one hundred pounds. The same gain as attributed to the fact that the steer refused to eat the meal with heartiness and neglected, after some weeks, the beets altogether. No. 8 was fed eight pounds of corn in the ear, morning, noon and evening, and clover hay same as above. He weighed in 1,130, gained 210, and weighed out 1,340. No. 9 was fed eight pounds of corn in the ear, morning and evening, fifteen pounds of sugar beets noon, and hay as Nos. 7 and 8. He weighed in 1,090, gained 180, and weighed out 1,270. No. 10 had six pounds of corn meal morning, noon and evening, and hay as above. He weighed in 1,100, and gained 190, and weighed out 1,330. The average gain for this lot was 177 1/2 pounds.

Lot No. 3 consisted of two steers, fed under an open but warm shed, eight pounds of corn in the ear, morning, noon and evening, and clover hay as lot No. 2. Steer No. 11 weighed in 1,050, gained 210, and weighed out 1,260. Steer No. 12 weighed in 1,180, gained 230, and weighed out 1,410; an average gain of 220 pounds.

One of the conclusions to be drawn from the above experiments in feeding—and they were previously enforced and illustrated by like results obtained from similar trials made the previous year—is that the common wild steers do not become used to confinement in so short a time as one hundred and nineteen says, and therefore the gain that might be expected from more comfortable quarters is not realized; a fact to be noticed by Eastern buyers, who purchase Western steers for fall-feeding. This may be seen by comparing those fed in the sheds without restraint, with those fed in the boxes, as well as those fed out of doors—the best average gain having been made on corn fed in the ear in an open shed. In regard to beets, the fact seems to be, so far as observed by Mr. Lawrence, that they are very valuable for milch cows and calves, but they do not appear to fill the place of corn in fattening steers. Thus, steer No. 9, fed on corn and beets, gained 180 pounds, while steer No. 8 fed on corn alone, gained 210 pounds.

The meal fed was from sound old corn of the crop of 1871, and the corn was of the crop of 1873, and was soft and chaffy. Comparing the gains made with those made the previous winter, the conclusion is, that when a steer is full fed on soft corn, like that of the crop of 1873, he will eat more pounds and make more flesh, than on hard corn of such crops as of 1872. When ground into meal, the hard corn, however, is altogether preferable—the difference being simply a matter of mastication and digestion. The twelve steers made an average gain of 1-69 pounds of each day for 119 days.

Lot No. 4 was composed of two grade calves, weaned at six months (February 1st, 1874.) It required 4-58 pounds of meal to make pound of growth, while with the twelve steers reducing the corn eaten to meal, 10-56 pounds were necessary to make the same weight. The inference is, that the time to feed cattle is when they are young, for with ordinary keeping the calves would have shrunk in weight instead of gaining immediately after weaning.

As an exceptional instance of what good pasture and corn will do for a thin steer, No. 13 was bought April 23, 1873, and weighed 620 pounds. He was immediately turned on pasture, and, September 13, weighed 1,120; was put on corn November 17th with the bunch of thirteen others referred to, kept their till May 10, turned off at 1,559 pounds, having gained 969 pounds in 13 1/2 months.—B F JOHNSTON.

A NICE PUDDING SAUCE.

Mix one cup sugar, four teaspoonsful of corn starch and just cold water enough to dissolve thoroughly, then pour on a cup of boiling water and let it boil twenty minutes or a half an hour. Then add two teaspoonsful of good cream. Flavor with currant, strawberry or raspberry juice. In making sauce if the flour is just as good as corn starch. Use a little more water than the recipe, so as to allow for boiling away.

Many Canadian laborers have left the farms and workshops of Vermont lately on account of reduction in wages. They find more encouragement at home.

TIGHT BINDING





AGRICULTURAL.

DEEP CULTIVATION.

The advocates of deep cultivation will read with satisfaction the following remarks made at a recent meeting of the Maidstone (England) Farmers' Club:

Mr. Barling said he should confine his remarks chiefly to the principle of ploughing. Ploughing was a mechanical action, which was to bring about another action—a chemical action. A remark had been made that evening to which he attached much weight. It was possible to cultivate well without ploughing—that was, that by moving the soil sufficiently they could bring about fertility without ploughing. It was thus brought about: The organic matter within the soil was capable of being dissolved and brought into a soluble condition if it be sufficiently exposed to the oxygen in the air, but if they kept that organic matter sealed up by earth—it might be kept as many generations as they like—they would get nothing from it. The more they broke the soil and let in the oxygen of the air, the quicker would the organic matter which they, or perhaps their grandfathers had placed in the soil, become soluble and the food of seeds which had been placed in that soil. The question of steam ploughing as against horse ploughing seemed to come to this—it did not matter how they ploughed, whether by animal force or the force of machinery. They might plough by turning over the sod or by breaking it up, but whatever they did, their object was to let in the air. In advocating deep cultivation, Mr. Barling said that if they broke the soil low down—he did not say turn it over—they altered the condition of that soil; they render it warmer upon the whole. If they laid the thermometer on the land, it would be found that the better and the deeper the soil was broken up, the warmer would be the land, and temperature was one of the elements favorable to the life of plants.

Mr. Paine has remarked that they could not get rid of the water by deep cultivation; but it would be better distributed, and land that has been thoroughly and deeply worked would, generally speaking, be moist, but not surcharged with water. Moisture was one of the elements upon which vegetable life so greatly depends; an excess was, however, harmful, but a certain quantity was needful. The land being warmer and moister, must, on principle, be greatly changed by deep cultivation.

OPEN DITCHES ARE NOT DRAINS.

The fact intimated in the title of this article may be a startling one; it is nevertheless true, and it must be within the experience of multitudes of the readers of the *Rural* that it has been demonstrated over and over again. Who has not walked through a meadow which some one, perhaps the reader himself, has endeavored to drain with open ditches, treading close to the edge of the ditch in the almost vain hope of finding firm ground and dry walking where the ground should be free from water, if anywhere? Was it found? No, certainly not, if the ditch was an old one—possibly, if it had been recently cleared out; and most likely, if the ditch had been newly dug, the ground was dry everywhere in the vicinity of it.

As soon as warm weather comes on after a ditch has been dug, and the earth becomes somewhat heated, the water from the oozy ground is of a decidedly higher temperature, and green scum appears upon the surface and covers objects lying in the water or moistened by it. Innumerable masses of fungus growths, mold and lichens will be distinctly visible to the close observer, starting up and creeping over stones and soil, and sand, wherever the warm moisture prevails. They penetrate the soil where these conditions exist, namely, warmth, water and air.

The lowest portions of the sides of the ditch are first filled and made impervious to water. It being thus dammed back, it overflows a little ridge of impervious earth, and the ditch is still effective, but it drains less surface.

The encroachment continues, and the "Agaricus and fungi add mildew and mold," alternately moistened into life and dried into hard cakes with each shower, creep higher and shut off more and more water from the ditch, which in a few weeks, or months, at furthest, is absolutely useless except to carry off the surplus surface water. If the sides be pared off the water will flow freely for a while. This takes place more or less when the ditch is cleaned out, and so this operation becomes a frequent necessity. —Moore's Rural New Yorker.

MAKING MANURE ON THE FARM.

Every farm should furnish its own resources for manure; for, although near cities the wise farmer avails himself of whatever waste matter he can get that is convertible into manure, the crops there cultivated are generally of an exhausting nature and fully sufficient to carry off the extra fertility so added. But only a comparative small number of farms are situated near enough to cities so that their owners can avail themselves of this source of increasing the crops, and therefore the great number are obliged to fall back upon the resources of the farm itself.

It is an English maxim that "a good farm is like a good joint of meat that only requires basting with its own dripping." Translated, it means that a good soil contains within itself all the resources of increased fertility. It is true the joint of meat must have been first made good, and so must the farm.—Man must feed the animal to get the good joint; nature originally fed the soil ready for man.

How many who have opened new farms on virgin soils have left them as good as they found them? The history of all countries answers, Very few. Man first impoverishes, and then, by the most laborious and costly means, refertilizes the worn soil. How quickly the farmers of the West are bringing their land to that state when this refertilization will be the all-important question, the decreased and constantly decreasing averages of grain per acre will tell. We do not mean by this that the time has yet come in the West when it has become imperatively necessary that an elaborate system of making manure and compost should be followed, although it might easily be demonstrated that in many sections such a course would be profitable. Nevertheless, the time has come when it will pay a heavy interest on the investment to save carefully and give back to the soil whatever manure is made from the feeding of animals; and this brings us to the point we wished to make.

The growing of clover and the grasses lies at the foundation of profitable farming throughout the temperate zone. These furnish the cheapest food for stock of every kind, exclusively so in summer, and are the main dependence of stock animals in winter. No crop is so constant in growth, early and late, under all kinds of treatment; no other crop is so well adapted to a variety of soils, wet and dry, heavy or light; none other furnishes so great a burthen to the soil in its tops and roots for plowing under, or the decomposition of which will better support successive crops of other growths; none so ameliorates the soil and renders it capable of furnishing the best conditions for promoting the best results from such crops as are grown for sale.

Again, he who raises plenty of grass, has resources for the feeding of stock and for making large quantities of manure. In the summer the manure is dropped where the animals feed. Plowing under the sward produces large crops of corn and other grain to be sold or fed to stock. If fed as it should be, it gives an increased amount of the richest manure, for it must be remembered that the value of manure is just in proportion to the value of the food consumed by the animal. If the animal be fed straw only, the manure is but the refuse of straw, as the animals so fed are but the skeletons of their types; and the farmer who feeds his farm from the manure of ill-kept stock, is sure to have a soil producing more straw than grain. High feeding makes high manuring possible, high manuring makes fat land, and fat land makes rich farmers.

In this we do not propose to overturn the generally recognized systems of feeding in the West. If we were at present engaged in fattening cattle in Central Indiana, Illinois, Iowa and other sections of the great

corn zone of the West, we should follow, in a measure, the usual plan of feeding cattle in the fields in good weather, and allowing swine to glean the droppings. Thus, scarcely anything is lost, and, provided the animals are kept secure from storms, there is no questioning the economy of the method, when corn is cheap and labor scarce and high. The question of how to feed, every farmer must decide for himself, and this every practical, thoughtful man will naturally do. The man who makes grain farming his exclusive business, with a view to selling the grain and burning the straw or feeding it to cattle, always ends in impoverishing his farm and ultimately himself. He is drawing constantly upon his principal. The first few years, it is true, this must often be done. If followed up, it must ultimately end in disaster. And yet, how many men in the West think this the perfection of farming!

We might go on and fill pages in showing the various resources that might become available on any farm in the making of manure—the inexhaustible beds of muck everywhere found, peat, the scrapings of ditches, ashes, lime and plaster; the liquid manure of stock, really the most valuable, and usually entirely lost; the slops of the kitchen and the water used in washing; the contents of privies, accumulations of bones, waste animal and other matter that litter yards, beful store rooms or decay in cellars, giving rise to miasma that often ends in disease and death to the possessors and their families. The *Western Rural* has heretofore spoken upon this subject, and it is not necessary now to more than call attention to it, with the especial object of pointing out the importance of grass as a principal source of increased fertility to already worn out farms.

We acknowledge that "all flesh is grass;" let us also remember that all grass is manure. Nature fertilizes the earth by the direct decay of vegetation. It is the province of the good farmer, while reaping the reward of his well-bestowed labor, to see that the refuse of the farm—manure—is faithfully applied; it may not always be done to the best advantage by the direct application of grass as manure. He has been endowed with intelligence to convert grass into flesh; returning the manure to the soil, he repays to nature only the proper interest which she demands.

SICKNESS OF THE SOIL.

From the *Mark Lane Express*.

The partial failure of the wheat crops for the last three years has led many persons to conclude that the land of England has become sick of such grain, and that it will never recover, except by a protracted fallow; in other words, by laying it down for pasturage, or by resuming the triennial course of husbandry, which consists of two white crops and a fallow. The present year will be enough, one would suppose, to dissipate the idea of sickness of the soil through any other known means than injudicious cultivation, or starvation, by the withholding of manure. There is no doubt that, like working horses or any other animals, hard labor and scanty feeding will have its effect, whether upon sensitive animals or insensible plants, Dr. Hooker's theory notwithstanding, which, literally speaking, gives plants the power of swallowing and digesting their food. If the farmer neglects, or is too poor to cultivate his land in the proper manner, he must expect the certain consequence—a short yield and poor quality, as the inevitable result. This complaint of sickness of the soil is no new one, but the rather very old—say as the Christian Era itself. Did not Columella during the first century write on the subject, in reply to those who just discovered the same mare's nest? He has a whole chapter about it, but it is not, therefore, from weariness, as very many have believed, nor from old age, but from our own slothfulness, that our cultivated lands do not so bountifully answer our expectations as formerly; for we might receive a greater product if the earth were refreshed and cherished with frequent seasonable and moderate stercoration.

Arthur Young, whose opinions were ever founded on facts, made a series of thirty-six experiments of a six-year's course of cropping or rotation, the results of which were published in the 23rd volume of the *Annals of Agriculture*, of which he was the editor. The experiments were made on a piece of old pasture of many years' standing, the soil a sandy loam, with a clay subsoil, and his deductions were as follows: That potatoes, as a fallow crop, were exhausting than any other without ploughing, and that barley, beans and succeed better than wheat after potatoes. That beans are the most valuable crop on new land, and that the fertility of soil depends for its continuance greatly upon the number of bean crops planted on that the oftener they were grown on better were the succeeding crops of all kinds of produce, and that three successive crops of beans were followed by an ordinary produce of wheat. He also ascertained that successive crops of white corn, destructive of fertility, and that three crops will reduce the land to a foul and unprofitable condition. He also ascertained by the experiment that beans and alternately, and beans and wheat, alternately, were the two most profitable courses; and lastly, that five crops of one and one of wheat not only yielded profit, but left the land in the very best condition.

On new land, also, as is well known, every farmer of any intelligence, the most profitable crop that can be raised. On the other hand, turnips, cabbages, potatoes are declared to be the most profitable in any course of cropping, yet, what would the farmers of such lands as those of Norfolk, Suffolk, others of the Eastern Counties, do the four-course husbandry? And the supply of animal food be provided out green crops? The number of sheep kept in Arthur Young's time was much smaller than at present, but the sheep had learned to know the value of crops, although they were chiefly, as substitutes for the bare fallow, materials of which, with the help of manure is manufactured, besides the land clean by hoeing. There is an element in this respect, in the value and green crops from the increased consumption and enhanced value of the land, of animals of every kind, as well as of fattening are rendered unproductive. A good deal of land withdrawn from the cultivation of produce, and laid down in grass, in Ireland; but this is quite incorrect, any decadence or diminished fertility of soil, and is in consequence of the value of pasture land and the high price of the meat; but in Ireland, from the climate being more adapted to pasturage, and the decline of the cattle, than for the cultivation of produce. Ireland shows a decline of land sown yearly; and while dear, and the transit of cattle from difficult, and therefore limited to a few countries on the continent, the wheat crops cannot increase.

CAPABILITIES OF AN ACRE.

J. M. Smith a market gardener at Bay, Wis., furnished the *Horticulturalist* with interesting statements of his experience in high culture. He has found it variable, and not a single exception that the more he has spent in manuring and manuring, the greater have been the profits per acre. Last season he had fourteen acres, and began with ever before. The result was, that there was a "terrific drought" in the driest seasons ever known in the after spending \$3,986, or \$384 per acre had a better balance than any previous year. He appeared to regard constant manuring especially through drought, in which with copious manuring, as all Stable manure is the standard; of superphosphates, plaster, lime, manures as experience and good sense out. "After you have learned by money to the best advantage," he said, "a larger profit may be made by \$300 per acre than with less. Second year, if your land does not expenses, taxes and 10 per cent. of a acre, there is something wrong. I have some acres of land that I have expended for two years, but for a years past have not failed to pay on at least \$2,000 per acre. I whole garden to do more than

short time, at 1,000 bus crop of carriage early potato, quarts, or 4 is not wholly under our o thirds of an

Prizes were farms occu Banffshire farms were judges were general con manuring ment, as sh and green c steadings a ness; to th the genera on the far judges me and convey was likely the follow the three awarded.

CORSIC was awa farm of Co bank of the Rothiemay Earl of of ninee ments at stables an side drain along thei into a ta age is pr heep, or u is introdu tion, and at all the are well l lights. I steading breeding different separate easy reac provision management of space everythin which, it a "spru The land shift, t gasses, interven varying The man Farm-y of 20 sq ed from ground ates or braird. ever suff it is no increase course manure on two judicious of many time of the cro we bel on the seen in previous barley lea wa ips, w for h made year's third. The stock awarded tion w on th three upof a are ge of age About and t feedin cross half

T I G H T  
B I N D I N G







**A Fisher Capturing Its Prey.**

We have many bird destroying animals in Canada. In the older settled parts of the country they are becoming extinct; still we have too many foxes, skunks and weasels among us yet for our profit. The wild cat is now rarely to be heard of. The animal we now show taking its prey, the fisher, is still a greater rarity; a friend of ours in this city, however, secured one in Muskoka, last year. They are something of the nature of the weasel, but about as large as a cat. Perhaps they may be more cunning and stealthy. You might easily imagine the sudden spring at the poor birds, that are perched in a high tree, for their night's rest. The heavy fall to the ground is, alone, sufficient to kill the bird; while

comes richer. But let us come home to the practical. What is the effect on our dairy land? It is getting better. The longer it has been devoted to this interest the richer it becomes. Here then is additional evidence, taking a general view of it. But dairy land is made rich by top-dressing, it will be said. This is true. And in this way it is continued unbroken for many years if not permanently. But then this is no more than nature's own way: she top-dresses annually her grass lands—lets the crop rot down to nourish the succeeding crop; and so on till she has a deep, rich soil, sometimes many feet in depth, as in our muck beds, where a coarser and ranker vegetation accumulates.

We thus have an answer to the heading

of timothy per acre being realized, for many years, the last crop as good as the best. The land was the ordinary drift soil, cropped with grain principally, for many years. Without this retention of the aftergrowth, a seeding (with clover or timothy) would usually last four or five years, and then require reploting.

Here is a clear case (it was done on our own farm) of the principle of self manuring, nature's way. It was often objected to leave the fine after-growth for the frost and the snow to rot down, when it would afford such excellent fall feed. But it was this very course that continued the meadow, and kept up the yield full and profitable. The coat of grass protected the roots. It afforded pabulum, and that of the right kind—simply a

when it was first cleared or at any subsequent time.

There was no fertilizers used save some manure one year on spots that needed it, and every other year a dressing of plaster, a bushel to the acre. The whole of the after-growth yearly was retained; not a hoof was permitted to touch the land.

This is encouraging. Farmers are beginning to get an inkling of the benefit of protecting their grass lands and enriching them by retaining part of the crop, or rather by not denuding their land so much. Here an annual crop was taken and nothing or little given back to the soil. Land may thus be made self-sustaining. Grass, instead of impoverishing, enriches it. It is only when the entire, or nearly entire crop is removed, and



A FISHER CAPTURING ITS PREY.

the fisher, being of a more supple nature, does as little or less than a cat for the all, more especially when it secures such a prize as it now securely holds in its mouth and by its claws.

The skin of the fisher is very valuable

**DOES GRASS IMPROVE THE SOIL?**

We hear it asked sometimes whether grass improves the land. That it "runs out" is commonly observed. The subject is a very interesting one, and not difficult of solution. Here are meadows in England centuries old. The prairies and savannas are older still—how old is beyond the memory or researches of man. These are indeed permanent grass lands.

Here is pretty clear evidence that the land, instead of becoming poorer or exhausted, be-

comes richer. But let us come home to the practical. What is the effect on our dairy land? It is getting better. The longer it has been devoted to this interest the richer it becomes. Here then is additional evidence, taking a general view of it. But dairy land is made rich by top-dressing, it will be said. This is true. And in this way it is continued unbroken for many years if not permanently. But then this is no more than nature's own way: she top-dresses annually her grass lands—lets the crop rot down to nourish the succeeding crop; and so on till she has a deep, rich soil, sometimes many feet in depth, as in our muck beds, where a coarser and ranker vegetation accumulates.

We thus have an answer to the heading

of timothy per acre being realized, for many years, the last crop as good as the best. The land was the ordinary drift soil, cropped with grain principally, for many years. Without this retention of the aftergrowth, a seeding (with clover or timothy) would usually last four or five years, and then require reploting.

Here is a clear case (it was done on our own farm) of the principle of self manuring, nature's way. It was often objected to leave the fine after-growth for the frost and the snow to rot down, when it would afford such excellent fall feed. But it was this very course that continued the meadow, and kept up the yield full and profitable. The coat of grass protected the roots. It afforded pabulum, and that of the right kind—simply a

when it was first cleared or at any subsequent time.

There was no fertilizers used save some manure one year on spots that needed it, and every other year a dressing of plaster, a bushel to the acre. The whole of the after-growth yearly was retained; not a hoof was permitted to touch the land.

This is encouraging. Farmers are beginning to get an inkling of the benefit of protecting their grass lands and enriching them by retaining part of the crop, or rather by not denuding their land so much. Here an annual crop was taken and nothing or little given back to the soil. Land may thus be made self-sustaining. Grass, instead of impoverishing, enriches it. It is only when the entire, or nearly entire crop is removed, and

when it was first cleared or at any subsequent time.

There is no expense speaking of, and on ing to secure the cr ing the soil, no s manure, no expen good crops with de soil.—Indiana Far

**FIFTY BUSHELS**

The average y varies largely in States, according ports, the averag nine bushels. In to about thirteen. counts of crops m approximations to the average yield thirteen bushels, t acres which yield bushels, as is kno the grain that a g from twenty to tw bushels of beauti approximate acco reveals certain im the cultivation o which should aro a careful considera sustained both b soil and by the G of such meagre c not only renders ti pendent, pecuniar ment of the Gover

It is an impov than one respect, system of manag him only, six, n wheat per acre; as harrowing the gro and cutting the cr about as great eight bushels per forty and even fift best state of ferti bushels of seed w duct may be eight not pay to attempt costly rate. The large portion of th can safely be co fifty bushels per a tilled as it should cultivate it. It when the pioneers moved the forests even sixty bush the acre. Even a merous accounts of the actual yie the product is re fifty, some sixty Here then, is a furnishes an instr cultivation of wh of Western New down all the tim ground, let the tr for a few weeks and dry when th by a huge bonfir harrowed (not p half bushel of ordinary yield w clean and plump be spoken of at f rate harvest is fi or thistle or pa growing grain.

land now covere cleaned in the sa put in about the first to the tent etor can rely on t choice grain with provided he sow furnishes a corre producing capaci Americans are s fertile ground th badly impoverish ment. When a and stick of firew being burned to of timber, the fe to develop is carr after crop is grow turning one atom aid in maintaini the ground. It is ceas to renovate pletely impoveris ment. But if th to maintain the f returning a fair some kind of fert



There is no expense for the production worth speaking of, and only the expense of harvesting to secure the crop—no plowing or working the soil, no saving and putting on of manure, no expense of seed, but yearly good crops with decided improvement of the soil.—*Indiana Farmer.*

**FIFTY BUSHELS OF WHEAT TO THE ACRE.**

The average yield of wheat per acre varies largely in different States. In some States, according to the statistical reports, the average yield amounts to only nine bushels. In New Jersey it amounts to about thirteen. Of course such accounts of crops must be considered only as approximations to the actual product. If the average yield per acre be represented by thirteen bushels, there must be hundreds of acres which yield only four, five or six bushels, as is known by actual weight of the grain that a great many farmers raise from twenty to twenty-five and even thirty bushels of beautiful grain per acre. Such approximate accounts of the wheat crop reveals certain impressive facts concerning the cultivation of this valuable cereal, which should arouse tillers of the soil to a careful consideration of the immense loss sustained both by the proprietors of the soil and by the Government in consequence of such meagre crops. Bountiful harvests not only renders tillers of the soil more independent, pecuniarily, but they tend to argument of the Government.

It is an impoverishing policy, in more than one respect, for a farmer to pursue that system of management which will return him only, six, nine or twelve bushels of wheat per acre; as the expense of ploughing harrowing the ground, putting in the seed and cutting the crop with the reaper will be about as great when the yield is only eight bushels per acre as when the product is forty and even fifty bushels. Land in a perfect state of fertility will require about two bushels of seed wheat per acre. The product may be eight or ten bushels. It will not pay to attempt to raise wheat at such a costly rate. The productive capacity of a large portion of the tillable soil of America can safely be computed at forty or even fifty bushels per acre, provided the land is tilled as it should be, and as it will pay to cultivate it. It was of common occurrence when the pioneers of our country first removed the forests, to hear of forty, fifty and even sixty bushels of beautiful wheat to the acre. Even at the present period numerous accounts are rendered every season of the actual yield of large fields in which the product is represented by forty, some fifty, some sixty and a few more than sixty. Here then, is an impressive fact, which furnishes an instructive commentary on the cultivation of wheat. The pioneer farmer of Western New York, was wont to cut down all the timber on the given area of ground, let the trees, brush and all remain for a few weeks until the weather was hot and dry when the ground would be cleared by a huge bonfire, the surface thoroughly harrowed (not ploughed) and one and a half bushel of seed wheat put in. An ordinary yield would be thirty bushels of clean and plump grain. A fair crop would be spoken of at forty bushels, and a first-rate harvest is fifty bushels without a weed or thistle or particle of chaff among the growing grain. If an acre of fair wheat-land now covered with heavy timber be cleaned in the same manner and seed wheat put in about the first of September (from the first to the tenth at the North), the proprietor can rely on the yield of forty bushels of choice grain with almost absolute certainty, provided he sows choice seed. This fact furnishes a correct idea of the natural wheat-producing capacity of the soil. But most Americans are so grasping that the most fertile ground that can be found is soon badly impoverished by injudicious management. When a forest is cleared, every tree and stick of firewood is removed instead of being burned to ashes. In this single crop of timber, the fertility it has required ages to develop is carried off the field. Then crop after crop is grown and removed without returning one atom of fertilizing material to aid in maintaining the original fertility of the ground. It is a difficult and tedious process to renovate a field that has been completely impoverished by injudicious management. But if the precaution were observed to maintain the fertility of a rich ground by returning a fair equivalent in the form of some kind of fertilizing material every time

a crop is removed, there would be no difficulty in raising from thirty to fifty bushels of superb wheat from every acre that is adapted to the production of this sort of grain.—*N. Y.*

**Garden, Orchard and Forest.**

**PRUNING FRUIT TREES.**

Dr. H. Clagget, in a communication to the *Rural World* of the respective merits of high and low pruning, remarks as follows: The practice of pruning down low heads and close planting is, I believe, of comparatively recent date—has had and still may have

The leaves require fresh air and sunlight, and perform their functions perfectly or imperfectly, as those elements are adequately, supplied. If, then, we would meet the requirements of nature, we must adapt our mode of pruning to the climate in the natural supply of these elements. In the humid climate, and consequently deficient power of sunlight, in England, very open heads are required; but it will not do in this country to run into the opposite extreme. We should sooner expect to develop, children into healthy, robust men or women, crowded together in an imperfect ventilation and poorly lighted room, than expect to develop healthy, long lived, fine-bearing fruit trees in a closely-planted, low headed orchard.



JESSUP'S FALL, HUDSON RIVER.

many admirers. But with careful observation, experienced fruit growers, it has had its day—run into the ground, and the sooner it is buried out of sight the better for the success of fruit growing. For it is progress backwards, downwards and in conflict with the natural laws of tree and fruit development. Every tree and plant we cultivate grows and develops according to natural laws, and requires for its high development, certain conditions. To obtain the best results we must seek to find out the best conditions and work in harmony with and aid nature in supplying them.

Every tree and fruit are made up of elements collected from the earth and air. The

**NOTES FROM THE MARKET GARDEN.**

The growing season is nearly over, though I see the late cabbage, turnips and celery is still growing, and the celery is making a splendid growth within the last few days.

The season has been a favorable one, with the exception of the drought. Well, says a whole army of our readers, is not the drought sufficient to ruin the season's crops? Well yes! I suppose it is, unless we cultivate better than most of us do. But I am satisfied that if we cultivate our land as we might, and ought to do, it is very rare that we could not counteract the effect of such droughts as we have in the State, sufficiently to give us at least fair crops.



THE GREAT BOOM, HUDSON RIVER.

elements collected from the earth are collected by the roots and pass through the stem and branches into the leaves, where they combine with the elements from the air, from which the common vitilized elements pass to the development of the tree and fruit. The roots and leaves, then, being the chief working organs of the tree we should see to it that both these classes of organs are supplied with the conditions best adapted to the perfect performance of their functions. The important inquiry, then, with every fruit grower as well as cultivator of any plant should be—what are those best conditions? With the confident assurance that, in proportion as he supplies them, will be the measure of his success.

I would rather have a very dry season, than a very wet one. A dry season is generally a hot one. A wet one, upon the contrary, is generally a cool one. If land is thoroughly enriched and well cultivated, the crops will endure a great deal of dry weather before they will give up and die. The roots will run deep and in every direction for moisture, and in so doing they find plenty of plant food to nourish them and as soon as the rain comes, they are ready to get the full benefit of it, while the half plowed land, and the half cultivated crops, are in a condition to get the full benefit of nothing. In the mean time the discouraged owner places the blame in every conceivable place, except just where it belongs.

Upon the other hand, in a very wet season the roots keep near the surface of the soil, and as a matter of course do not come in contact with near the amount of plant food that they do in a dry soil.

In addition to this if we have even a very short season of dry weather, when crops are in such a condition, it makes them suffer much more than if the season had been rather a dry one from the spring. I have noticed this fact repeatedly in my experience, and hence another season will work for complete and thorough drainage.

Suppose I give you a few short papers upon the practical results, and the lessons of the last season as I have learned them?—*By J. M. Smith, in W. Farmer.*

**Views on the Hudson River.**

*Continued.*

We give here two scenes lower down on the Hudson than those given last month. Jessup's Great Falls are just below the confluence of the Hudson and Scandagoo rivers. The following description is from the pen of R. J. Losing:

"We followed a path down the margin of the roaring stream some distance, and returning, took a rough road which led to the foot of the Great Fall. From Jessup's Landing to this point, a distance of more than a mile, the river descends about one hundred and twenty feet, in some places rushing wildly through rocky gorges from eight to one hundred feet in depth.

"The perpendicular fall is seventy-five feet in depth. From its course back some distance the stream was checked with thousands of logs that had come down from the wilderness and lodged there. They lay in a mass in every conceivable position, to the depth of many feet, and so filled the river as to form a safe though rough bridge for us to cross."

Below these falls, and 2½ miles above Glen's Falls, are the State Dam and Great Boom.

The dam was constructed in 1845, to furnish water for the feeder of the canal which connects the Hudson River and Lake Champlain. It is 1,600 feet in length. About two miles above the dyke is the Great Boom, thrown across the river for the purpose of catching all the logs that come floating from above. It is made of heavy, hewn timbers, four of them bolted together raft-wise. The ends of the groups are connected by chains, which work over friction rollers, to allow the boom to accommodate itself to the motion of the water. Each end of the boom is secured to a heavy abutment by chains; and above it are strong triangular structures to break the ice, to serve as anchors for the boom, and to operate as shields to prevent the logs striking the boom with the full speed of the current. At times, immense numbers of logs collect above this boom, filling the river for two or three miles. In the spring of 1859 at least half a million of logs were collected there, ready to be taken into small side booms, assorted by the owners according to their private marks, and sent down to Glen's Falls, Sandy Hill or Fort Edward, to be sawed into boards at the former places, or made into rafts at the latter, for a voyage down the river. Heavy rains and melting snows filled the river to overflowing. The great boom snapped asunder, and the half million of logs went rushing down the stream, defying every barrier. The country below was flooded by the swollen river, and thousands of the logs scattered over the valley of the Hudson from Fort Edward to Troy.

A correspondent of the *Country Gentleman* says that a way to banish rats is, plant asphodel near the barn or stable where they are, or put some in their holes. Rats have such an aversion for this plant that they will quit the premises where it is. If they are in drains or in cellars, scatter sulphate of iron (copperas) in their runs. The copperas should not be dissolved. It is our best and cheapest disinfectant. The sulphuric acid burns their feet, and they leave in a short time, without dying. This will be appreciated by every housekeeper that has had to endure the stench of a dead rat.

A successful importation of live cattle from the River Platte, in South America, was lately made into England. Near a hundred head of oxen were shipped upon the steamer and taken from the Argentine Confederation to London in twenty four days. On their arrival they were in such good condition that after a week's rest and feed, they were sold for \$80 each, \$45 in advance of their cost in South America.





## MINNIE MAY'S

DEPARTMENT.

## Cookery.

Christmas is coming, so we must be looking about for puddings and pies and other holiday cheer, so I will give a few receipts of that kind this month. There is one thing which I wish particularly to draw your attention to and that is

## MIRTH AT MEAL TIME.

Everybody should plan to have pleasant conversation at the table, just as they have good food. A little story-telling, a little reading, it may be of humorous things, anecdotes, etc., will often stimulate the joyous elements of the mind and cause it to act vigorously. Try and avoid going to the table all tired out. Let all troublesome topics be avoided. Don't scold domestics. Don't discipline children. Think and say something pleasant. Cultivate mirth, and laugh when anything witty is said. If possible, never eat alone. Invite a friend of whom you are fond, and try and have a good time. Friendship and friendly intercourse at the table whets the appetite and promotes the flow of animal spirits.

## PUDDINGS.

**SUET.**—Half a pound of flour, 1 lb. beef suet chopped very small, one teaspoonful of salt; mix these with just sufficient milk, or water, to keep them together. Boil it two hours and a half in a basin or cloth. Half a pound of stoned raisins may be added.

**SWEET SAUCE.**—Half a pint of nice brown sugar, a piece of butter the size of a small egg; beat with a spoon until it becomes froth; stir boiling water into it until it becomes the right consistency, then add half a glass of wine and a little grated nutmeg. Keep it near the fire.

**CUSTARD APPLE.**—Pare and core 12 sour apples; stir a custard and pour it on them and bake.

**MARLBOROUGH.**—Stew nine tart apples until tender, then pass them through a sieve; 8 oz. butter; grate the outside of two lemons; squeeze the juice of one lemon; 6 table-spoonful water, 1 lb. powdered sugar, 9 eggs. Stir well together.

**YORKSHIRE.**—Two eggs in a pint of milk, a little salt, and flour enough to make it neither hard nor soft, (in short, just right.) Bake quick, in a long tin. To be eaten with butter and sugar mixed.

## MINCE PIE.

One pound finely-chopped roast beef; half pound of suet do; half peck apples do; one pound raisins seeded; half pound cleaned currants; one nutmeg; two table-spoonfuls ground cinnamon; one do. ground cloves; some mace; one pound sugar; and sweet cider to moisten the whole. Mix and let it stand all night; when using add two ounces citron cut in very thin strips.

**PLAIN MINCE PIE WITHOUT MEAT.**—One pound and a half crackers; three spoonful melted butter; half a cup of vinegar; one cup molasses; raisins and spice to your taste. Melt the butter and vinegar, then add the rest and fill your paste; cover as usual.

## HOW TO KEEP MEAT.

Meat is much better for family use when at least one week old in cold weather. The English method for keeping meat for some time has great merit. Experts say, hang up a quarter of meat with the cut side up, being the reverse of the usual way, by the leg, and the juice will remain in the meat, and not run to the cut, and dry up by evaporation. It is worth a trial, and when made will be continued.

**SAUSAGE MEAT.**—The proportions for sausage-meat are, a pound of lean fresh veal, and a pound of lean fresh pork, a clove and a piece of nutmeg. Chop the meat fine, or

run it through a chopping-machine; grate a little nutmeg and clove; also a small piece of cinnamon, if liked; mix them, and also salt and pepper, with the meat: two yolks of eggs may also be added, if handy. You then know with what kind of meat your sausage is made. More veal and less pork may be used, and *vice versa*, according to taste.

## Minnie May's Scrap Book.

**TO KEEP CELLARS FROM FREEZING.**—A friend of ours, who has tried it, says he prevents frost in his cellar by pasting the walls and the ceiling over with four or five thickness of newspapers, a curtain of the same material being also pasted over the small low windows at the top of the cellar. The papers were pasted to the bare joists overhead, leaving an air space between them and the floor. He reports that the paper carried the roots through last winter, though the cellar was left unbanked, and he is confident they have made the cellar frost-proof. Whatever paper is employed, it will be necessary to sweep down the walls thoroughly, and to use a very strong size to hold the paper to the stones. It is not necessary to press the depressions of the wall; every air space beneath it is an additional defence against the cold.

**BURNING CHIMNEY.**—If it be desired to extinguish the fire in a chimney which has been lighted by a fire in the fireplace, shut all the doors of the apartment, so as to prevent any current of air up the chimney, and throw a few handfuls of common salt upon the fire, which will immediately extinguish the same. The philosophy of this is that, in the process of burning the salt, muriatic acid gas is evolved, which is a prompt extinguisher of fire.

**HOME MADE CANDLES.**—Many of our readers in the country will find that candles can be made economically, by mixing a little melted beeswax with the tallow to give durability to the candle, and to prevent its "running." The light from a tallow candle can be improved in clearness and brilliancy by using small wicks which have been dipped in spirits of turpentine and thoroughly dried.

Roasted coffee loses its strength if left uncovered. If you have no retort, take purposely for keeping coffee, then keep it in a tin fruit can with the lid on. This is a very good substitute.

**TRANSFERRING PICTURES TO GLASS.**—Coat the glass with varnish and balsam of fir in turpentine, then press the engraving on smoothly and evenly, being careful to remove all air bubbles. Let it stand for 24 hours, then dampen the back sufficiently to allow the paper to be rubbed off by the forefinger, rubbing it till a mere film is left on the glass, then varnish again.

## SHEEPS' HEARTS ROASTED.

Having washed the hearts, stuff each with an onion parboiled and then minced fine, two table-spoonfuls of bread-crumbs, half a teaspoonful of chopped or dried sage, and sufficient black pepper and salt to season highly. Press the stuffing well into the hearts, and, if necessary, fasten a little muslin over the top to keep it in. Whilst roasting, baste frequently. They may also be baked, but care must be taken not to let them get dry. Any heart that may be left is excellent hashed.

## THE HOUSEHOLD—THE BEAUTY, UTILITY AND THE ACCEPTABILITY OF SOUP MAKING.

There is no way in which the comfortable abundance of the table may be better insured, while at the same time a strict eye is kept upon economical expenditure of means, than by an almost daily addition of soup to the family dinner. It is only when concocted by contemptuous sobriquet of "slops," so often applied to it.

It is surprising from what a scanty allotment of material a dainty dish of soup may be supplied. Let a roast of beef be consumed to the very bone, a turkey or pair of fowls deprived of every joint, yet, if the carcasses is put away, it furnishes at once the needed basis. The French understand this to perfection, and we read that in Parisian kitchens a closed vessel, containing "potage," is ever at the fireside awaiting any and every contribution the skilful grisette anon supplies

from the surplus of other dishes in process of preparation.

In the first place, observe always to lay your meat in the bottom of the pan or pot, cutting the meat up, or if a bone, cracking it well. A lump of butter adds richness, but is not necessary. Select such herbs and vegetables as you prefer, cut them up very small and lay over the meat, with a very little water and a cautiously small piece of salt. Cover the vessel with a close fitting lid and set it by a slow fire, this will draw out all the virtue of herbs and roots, giving the same a different flavor from what is imparted by putting the full quantity of water in at first. Turn the meat frequently. When the gravy produced is almost dried up, fill your pot with a sufficient quantity of water to make soup enough for your family. To a large shank-bone of beef three quarts or even one gallon is not too much to allow.

When your soup is done, take it off the fire to cool, and skim thoroughly from grease. Put it on again and be sure not to dish it up unless boiling hot. Be careful to add salt and other high flavored condiments sparingly. Every table is supplied with a salt cellar and castors, so that a deficiency in these respects may be easily remedied; not so an over quantity. If other thickening than the vegetable used, is deemed advisable, brown the flour for all soups save chickens, veal and oyster soups.

## MOULD ON BREAD.

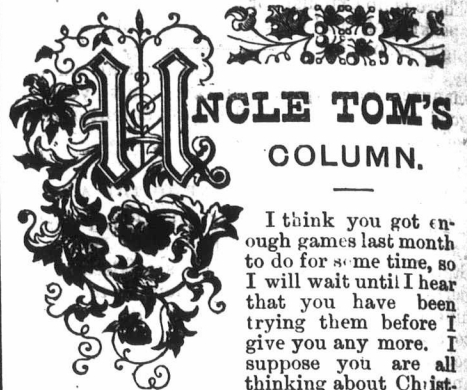
Inquiries so frequently come to me regarding the nature of bread mould, that it may not be amiss to say a little here by way of explanation.

Moulds of all kinds, no matter where, when, or how they grow, are plants. They belong to the great series of flowerless plants, and to the group of Fungi. In common with many of the low forms of plant life, they consist principally of delicate white threads, which grow through and on the substance which affords them nourishment. Take for example a loaf of bread; when the mould first begins growth, it is by sending myriads of these white filaments through its substance; these threads absorb nourishment from the bread in much the same way that roots do theirs from the soil. After these have grown sufficiently, the fibres near or at the surface develop the "fruiting" threads which we know as the "blue or grass mould." Under the microscope this "blue mould" is seen to consist of thousands of minute colored threads, standing upright, each of which bears at its summit a little mass of exceedingly small globular bodies, which are the spores or reproducing bodies of the plants. If these spores happen to be blown upon bread or paste of any kind, they very soon begin the growth of the white threads first descending. The round of life of a mould plant, then, is this:—First the spore falls upon the bread, from this grows the mass of white thread (known technically as *mycelium*) and last from this grows the erect threads which produce the spores again.

Mould grows best where the air is moist, hence drying the air in the pantry is one of the steps in eradicating mouldiness. Strong sunshine seems inimical to the growth of moulds, so let in a good amount of sunlight.

As the spores are produced in numbers almost beyond calculation, it is necessary to take some means to get rid of or to kill those which are to be found in every crack or corner of mould room. Opening the room and allowing a strong draft of wind to blow through will take out many of them; sulphur may be burned in the room, in this case the doors and windows must be closed so as to keep in the fumes for from ten to twelve hours; white-washing if thoroughly done, will prove effectual in most cases. It is not a good plan to paper pantries, as the surface of the finest wall paper is rough enough to entangle and lodge thousands of spores upon every square foot of surface. One word more: will not every housewife remember that bread mould always grows first through the bread, and that the blue mould found on the surface is but the "fruiting." It helps matters then but little to cut off the visible mould on the surface, for the greater part of the mouldiness is always in and not on the loaf. Never attempt to use any part of the loaf within three or four inches of the external "fruiting" or blue mould.

What is the difference between pugilists and hatters?—The former make themselves felt, and the latter make felt themselves.



## UNCLE TOM'S COLUMN.

I think you got enough games last month to do for some time, so I will wait until I hear that you have been trying them before I give you any more. I suppose you are all thinking about Christmas presents these days. Let me whisper a word in your ear: Mr. Weld has a beautiful picture—a chromo-lithograph—called "The Wanderer," which he is giving every old subscriber who sends in one new subscriber. Now, you boys and girls, here is your chance. I have seen the picture, and think it splendid. I have heard from Willie Rutherford, and W. E. Fiewelling, and James Andrew Squeezer, who wants to come into the family. All right; squeeze in, Andrew. And I have heard from Hattie Haviland, who finds that she also has a hole in her pocket, and Minnie Jarvis, who writes as follows:

Byron, Oct. 14th, 1874.

Dear Uncle Tom,—

I have neglected writing to you until now. To-day was Jacky's birthday, and he is three years old. He wanted a birthday cake, so sister Hettie made him one, and I bought the candies.

Dear cousins, we have had Uncle Tom and Mrs. Uncle Tom—I do not know whether she is Minnie May or not, but I rather think she is—and the little cousins out to see us. We had neither swing or croquet, as some of the other cousins offered him if he would come and see them, but we had a lot of good melons, and we enjoyed ourselves with them. We would like to have him out again to go for chestnuts, and get his fingers full of burrs, as I do mine, and then we would have jolly fun picking them out. But I am getting sleepy, so good bye. Your loving niece,

MINNIE MAY JARVIS.

## PUZZLES.

- 283.—Very soft my first,  
Very hard my second;  
And my whole in sticks  
Rather sweet is reckoned.
- 284.—I am a pair, yet only one,  
And generally found alone;  
With mouth of brass and lungs of  
leather,  
I can blow for hours together.
- 285.—My first is in vine but not in grape,  
My second is in twine but not in tape;  
My third is in now but not in past,  
My fourth is in slow but not in fast;  
My fifth is in rhyme but not in reason,  
My sixth is in time but not in season.  
My whole is a flower.
- 286.—A Puzzle Inscription:  
J. acka ndj  
Illw E. N. Tupt h illt oge  
Tapa ilo fwa T. er Ja ckfe  
Lido nwan dbr Oke H. I. S. C row  
Nan djl Lea met umbli  
Nga F. T. E. R.

## HIDDEN COLORS.

- 287.—What is this color Edward?  
288.—These hot days Bob lacks strength.  
289.—Hand me a pin Kitty quick.  
290.—Cannot you and Dick agree Nelly?  
291.—You will certainly break that knob  
Luella.

## TRANSPPOSITIONS.

- 292.—Transpose a thankless person into a mineral.  
293.—Transpose what a man sat on into what stung him.  
294.—What word is that which is made shorter by adding a syllable to it?  
295.—My first and my fifth are alike,  
My second and fourth have one name,  
My third is one-tenth of my first,  
And my whole will read two ways the same.

Look out for prizes next month.



UNCLE TOM'S SCRAP BOOK.

Two young ladies holding converse over a new dress—"And does it fit well?" asked one.

Johnny asked his mother the meaning of "capital punishment."

A lady meeting a girl who had lately left her service, inquired, "Well, Mary, where do you live now?"

"In London no man thinks of blacking his own boots," said a haughty Briton once to the late Mr. Lincoln.

A youth who was taking an airing in the country tried to amuse himself by quizzing an old farmer about his bald head.

In a country town in Illinois a few evenings since, at a panorama of the Bible, a little eight-year old girl wrapped in admiration at the best scene until the picture of Jacob and Rebecca at the well appeared.

A gentleman in Massachusetts, being threatened with a contagious disease, said to his little son, who, in an affectionate mood, wished to embrace him.

On a tombstone in South Carolina is the following beautiful tribute to departed worth: Here lies the body of Robert Gordon.

"Why, Mr. B.," said a tall youth to a little person, who was in company with half a dozen huge men.

"Won't you cut open a penny for me, papa!" said a little girl, when she came home from school one day.

A young lady had been teaching the Catechism to her class in Sunday school, when one Sunday she said, "I think you must now learn something about the collects."

A village shopkeeper, on entering his shop one morning, found his Robby attempting to throw all sorts of somersaults and kicking up as great a rumpus as a seal in a tub.

Two Scotch worthies, rather fond of beer, retired from a regular house of call to a field, one fine evening, and sat down on a bench to enjoy their favorite beverage alone.

up, "it has a tremendous high ceiling." That surely must be the famous hotel in Midland city, of which we have heard so much.

BETTER WHISTLE THAN WHINE.

As I was taking a walk early in September, I noticed two little boys on their way to school. The smaller stumbled and fell, and though he was not much hurt, he began to whine in a babyish way.

The older boy took his hand in a kind and fatherly way, and said: "Oh, never mind, Jimmy, don't whine; it is a great deal better to whistle."

Jimmy tried to join in the whistle. "I can't whistle as nice as you, Charlie," said he.

So he did, and the last I saw or heard of the little fellows they were whistling away as earnestly as though that was the chief end of life.

Bear Hunting in Russia.

To us who have so little acquaintance with Russia and its inhabitants, it appears to be a wild, uncivilized country, and the accompanying engraving would lead to the same conclusion.

The accompanying sketch depicts a bear hunt in one of their immense forests. Bruin, who, by the way, is a pretty sizable fellow, thinks he is going to make short work of Mr. Russian, who, stretching forward his left arm, which is thickly bandaged, pushes it into the bear's open mouth and then stabs him with the short sword which he holds in his right hand.

Rather dangerous looking work, but to the Russian, who has often done the same thing before, and knows just where to strike the bear in order to inflict a mortal wound, it is simply sport.

"Sir!" said a tall, thin man, clad in a worn, very shining garb, suddenly appearing in the room, "I have ventured to call to lay before you one of the most astonishing inventions of modern times."

"A gas burner, sir." I was busy arranging some paper in a corner, and having both hands full, with a pen held crossways in my mouth, I was for the moment quite at his mercy.

By this time I had emptied my hands and mouth, and was advancing upon him. Fixing his eyes upon mine, he started back in distressful horror.

"Heavens help us, sir," he exclaimed, "how you have suffered already! Your sight, sir, would not last six months longer. This must not be!"

Before I could say a word or lift a finger to stop him, he rapidly glided past me to the table on which the lamp stood. With a nimbleness which rooted me to the spot with apprehension, he whipped off the shade, then the old burner. In a moment the lamp was a ruin.

"It is a mercy of Providence, sir, that I happened to call."

"The number of cases of premature blindness," he calmly proceeded, "that I have had the gratification of preventing, makes my labor a most pleasant one."

He struck a very effective attitude. "Payment! of what consequence is that? I could not remove that inestimable burner for any amount of money, when the alternative is the ruin of your valuable eyesight."

I could not remove that inestimable burner for any amount of money, when the alternative is the ruin of your valuable eyesight. For, sir, your eyes are worth many burners. I make you a present of it willingly. I am a poor man, under heavy travelling expenses, and I have a family in want."



BEAR HUNTING IN RUSSIA.

ceivable accident, anything should become out of order in it, you will find the name of the manufacturer stamped on the inside. Be good enough to drop a line to their well known house at Glasgow, and a man will instantly be sent to attend to it."

I was beaten. This offer to send a man from Scotland into the heart of England, after a lapse of years, to put a gratuitously bestowed three pence-halfpenny gas burner to rights, was too much for me. I had to make a purchase.

MY DEAF WIFE AND AUNT. I had an aunt coming to visit me for the first time since my marriage, and I don't know what evil genius prompted the wickedness which I perpetrated toward my wife and ancient relation.

"My dear," said I to my wife on the day before my aunt's arrival, "you know Aunt Mary is coming to-morrow; well, I forgot to mention a rather annoying circumstance with regard to her. She is very deaf; and although she can hear my voice, yet you will be obliged to speak extremely loud in order to be heard."

Mrs. — announced her determination to make herself heard, if in her power. I then went to John N., who loves a joke about as well as any person I know of, and told him to be at the house at 6 p. m. on the following evening, and felt comparatively happy.

I went to the railroad depot with a carriage next night, and when I was on my way home with my aunt, I said: "My dear aunt, there is one rather annoy-

ing infirmity that Annie (my wife) has, which I forgot to mention before. She is very deaf and although she can hear my voice, to which she is accustomed, in its ordinary tones you will be obliged to speak extremely loud in order to be heard. I am sorry for it."

Aunt Mary, in the goodness of her heart, protested that she rather liked speaking and to do so would afford her great pleasure. The carriage drove up on the steps of the house in the window was John N., whose face was utterly solemn as if he had buried relatives that afternoon.

"I am delighted to see you," shrieked Aunt Mary, and the policeman on the opposite side of the street, who was nearly falling overboard, walked started, and my aunt nearly fell from the steps.

"Kiss me, my dear," bawled my aunt, and the windows shook as with the fever and I looked at the window John had peeped. Human nature could stand no longer. I poked my head into the carriage and went into strong convulsions.

When I entered the parlor my wife was helping Aunt Mary to take off her cap, and there sat John with his face in his handkerchief. "Did you have a pleasant journey?" went off my wife like a pistol. John nearly jumped to his feet.

"Rather dusty," was the response in a hoarse, and the conversation continued. The neighbors for blocks around me heard it; when I was in the third story building I heard every word.

In the course of the evening my wife had occasion to say to me: "How loud your wife talks!" I told her deaf persons talked loudly that my wife being used to me was not so by the exertion, and that she was getting very nicely with her.

Presently my wife said softly: "Alf, how very loud your aunt talks!" "Yes," said I, "all deaf persons do getting along with her finely; she hears your word you say." And I rather think they went at their success in being un-derstanded at it hammer and tongs, till they went upon the mantle-piece clattered, and I was seriously afraid of a crowd in front of the house.

But the end was near. My aunt, in an investigating turn of mind, was determining out whether the exertion of her voice was injurious to my wife. So she began to talk so loud strain your throat, and she in an unearthly whoop, for she was not as musical as it was when she was young.

"It is an exertion," shrieked my wife. "Then why do you do it?" was the in-terrogation. "Because—because—you can't hear me," squealed my wife.

"What!" said aunt, fairly rivaling the road whistle at the time. I began to think it time to evacuate the premises; and looking around and seeing my wife flat on her back, with her feet angles, and his body rolling from side to side, I voluntarily assumed a similar attitude, and my wife, in the relative position of our heads and our attempts to restrain our- selves, appoplexy must inevitably have a horrible groan which John gave up his end-avor to suppress his risibility, betrayed our hiding place.

In came my wife and aunt, who I comprehended the joke, and such a groan and a horse laugh that all of us upset and we screamed in concert. I know it was very wrong, and I tell such a falsehood, but I think Opie herself would have laughed. I have seen Aunt Mary's expression when informed that her hearing was defective.

ANSWERS TO NOVEMBER

- 276. Indus. 277. - Obi. 278. - House,ouse,use. 280.-C Z A R Z O N E A N N R E A S O O A C I O N C A C R E B E E

UNCLE TOM'S COLUMN.

think you got engaged last month for me time, so I wait until I hear you have been engaged before I say any more. I hope you are all getting about Christmas. I wish I had a beautiful girl called 'The Ring every old subscriber. Now, your chance. I think it splendid. Rutherford, and James Andrew into the family. And I have who finds t'at pocket, and Minnie

Oct. 14th, 1874.

to you until now, and he is three birthday cake, so and I bought the

Uncle Tom and know whether she I rather think she t to see us. We et, as some of the if he would come lot of good melons, with them. We t again to go for burrs full of burrs, as should have jolly fun am getting sleepy, niece.

ANNIE MAY JARVIS.

and; ticks skoned.

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but not in grape, vine but not in tape; y but not in past; ow but not in fast; ne but not in reason, ne but not in season, ver.

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OLORS. or Edward? Bob lacks strength. Kitty quick. Dick agree Nelly? ily break that knob

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ext month.





POULTRY YARD

HONOR AMONG POULTRY MEN—MORE OF IT WANTED.

In all our dealings with others depend more or less upon the integrity whom we transact business. We can say with certainty that we are an article of the exact quality as that we pay. In many cases our decision is not to buy is based largely upon the fact that in no other business, perhaps, is this so true as in the poultry business. Hence, reliance on the part of the fanciers and others of cultivating a high standard of

poetry papers have during the past been burdened with discussions on the subject of excellence—standards for judging and appearance—but makes these as we may, they cannot always reveal the truth so often abounds in apparently the same in the country. We need some thing more outward appearance as a standard of purity. We want men of moral integrity, to fill the ranks in the army of poultry breeders now so rampant in the West. How are we to

unless perhaps to talk on this subject who have been long in the business. Let straight-forward dealers know all the experience the importance of a course, while those other wise disposed are all likely to change for the better; oh as have recently embarked in the and it was our pleasure to see many of our fairer this season—a timely word of may be a benefit. Beware, not only duped" by others but carefully avoid of any of the questionable ways to the business. In filling orders be and exactly what you agree to send, and fear to say you have not as good an is called for, if you really think you in short, always deal in accordance following counsel—good enough for for any one to live by: "Be all your upon a principle of right; preserve your of character, and in doing this never cost." You may seem to advance ly at first by what some would term "carefulness," but it will not be on before you will find among your those who have forsaken that class and dealers who care more for the in than for the real advancement of

the means of building up for your good reputation, join your local or cision, and in doing this aim to bring s and additional credit and worth before y, by your connection with it, as well tained personally by the standing it in return. y the above from the Prairie all knowing that the hints are and needed in our country. An reputation is worth more than a list prizes.

CONFINING POULTRY.

to confine our hens so as to pro- den and roosts we must necessarily more pains than when we allow n at large. To confine hens and n as well as when allowed to run e must follow the following rules regularly at least twice a day; not ut just enough to satisfy their appe-

plenty of water before them all the plenty of gravel and sand before de for them a good warm roosting always keep it free from dirt and

at least half of their park in grass, e remain for occasionally, so as to plenty of wallowing places. G and and one remedies recommend- ick ns from lice are thrown into the following safe and effectual spoonful each of lard-oil and pow- frs bark; mix and apply to the head e chick n, and under the wings f an old fowl. One application of if careful y done, is all that if

lard-oil alone, or common clean ver every purpose of the above is thus lard or oil, stopping the s of the lice, that kills them so ad the-sassafras has a thin; to do- ders have recommended sulphur the same purpose but the lard

alone will do the work every time, and the chicks are spared the risks of taking cold and being otherwise infuriated by the use of sulphur.—Prairie Farmer.

LATE CHICKENS.

The general and very correct opinion among breeders is that early hatched fowls are more valuable than the late ones. Hence it has become almost a second nature to some to make all their plans upon the supposition that the hatching season closes with June, at the latest, and the chicks hatched later than May cannot be much counted upon for first class birds.

Early chicks will, as a rule, grow a trifle larger than those hatched from July to September, and will, of course, be ready for the market and to lay in better season; but if you will have a care to provide good, warm quarters for your chickens when the first chilly autumn weather comes on, managing to keep them facing the south, till the sun is well up and warm, you need not lose any by the cold, nor tint their growth. Then provide for them regular supplies of fresh, in place of the worms and grasshoppers now passed away; also chopped cabbage, onion, etc., which they will eat instead of summer grass, and they will develop splendidly instead of being hatched out in time. And when spring opens, and some of your early hatched pullets have laid out one litter and are resting for a while, your August and September fowls will be laying nicely.

This is not theory, but facts, and the result of numerous experiments. The only fault of the plan is to be found in the fact that late chickens cannot be habitually neglected, but must be cared for and with proper care they will mature well and prove profitable.—Saxon, in Northwestern Poultry Journal.

MORTALITY IN POULTRY.

Ordinarily, six or eight per cent. of adult fowls will die of disease annually, when they were kept for profit and given a stimulating diet to make them lay as much as possible. This is not surprising when we reflect that our domestic fowls are in a high artificial condition; the production of large numbers of eggs if unnatural, being a habit induced by man, and causes a great strain on the constitution. The artificial supply of food in unlimited allowance, with no necessity for exercise on the part of the fowls, is another source of disease. In the wild state every species of bird must work for a living and produce their food a little at a time. It may be observed, also, that during the very part of the year when food perchances to be abundant, the wild fowls are kept from laziness by the necessity of feeding their young, nature having fixed the breeding time in the flesh season as regards fowls. Again the structure of fowls is so changed by ages of breeding, that the wings and legs, and whole sets of muscle connected therewith are dwarfed by disease, while other portions of the body are made relatively large, which impairs the general vigor by destroying to some extent the natural balance of the organization. For these and other reasons it is to be expected that the ordinary death rate in a poultry yard will be considerable. The fact is that fowls will die of old age any how, (in most cases)—renders it likely that a certain portion will die annually at an earlier age. In conformity with this idea, geese, which do not reach old age till twenty to one hundred years, do not drop off in the early years or mature to so great an extent as hens.

The moral of the above is that novices in poultry raising need not worry over their ill-luck, or mistrust that their management is any worse than that of their neighbors because, perchance, a few of their fowls of two, or three, or four years old die every summer. It is to be expected, unless the breed kept is unusually hardy, and all the circumstances are as much as possible by hygienic measures, rather than by medicine. Give plenty of air and sunshine, feed moderately, and promote exercise, and expect some losses in spite of all precautions.—Buffalo Live Stock Journal.

In the affirmative I would reply, allow me to give a few facts to carry out that assertion: March 1st, 1874, I had seventy-five pure bred hens and cocks, from which I have sold in eggs and fowls \$201 worth, have used in the family one hundred dozen eggs which have been worth 25 cents, and have at present forty-eight of the old stock, and over one hundred nice young chickens. The cost since January 1st has been \$34 so that any one can see the net result. Of course a great amount of time, care and attention have been bestowed in obtaining so good a return, and all this without those nice grassy runs which so many fanciers have; what vegetable food they have had has been given, demonstrating the fact that with proper management, poultry does pay. No roup or cholera in my yards; yet I have lost two hens from causes unknown, also an im-

ported D. B. cock through paralysis; he lived thirteen days without walking, and I took sympathy and ended his career. I shall this fall dispose of two of the four varieties which I keep, believing that a less number of kinds with the same attention bestowed will be more satisfactory to the fancier, and produce a lighter type of fowls. As to the varieties I shall keep, it is a hard matter to decide. Each kind has so many redeeming features that one is lost to part with any when he sees so many good qualities and enjoys the beauties of the birds; however, I feel at present that the Light Brahma and the Partridge Cochin will be the varieties retained. Waiting to hear of better returns from any breeder with equal stock, I remain respectfully—Dr. J. H. Bryant in National Poultry Journal.

The Horse.

OPINIONS ON SAFETY.

Unsafety on the road generally arises from one or more of the following causes—bad action, bad formation, sluggishness, or infirmity, or all combined, if we suppose any man's sins to be so great that such an animal has got into his hands as a just retribution of them.

To begin with action. There may be a diversity of opinion as to what is pretty action, and each man may harmlessly indulge his taste in this particular; but there should be but one opinion as to what is safe action. Many persons conceive, if a horse has high action, it denotes perfect safety. There can be no great error; for high action has very little to do with safety, in fact, in many particulars it very much contributes to its reverse. The most moderate action is generally high enough to clear all the imperceptible inequalities of a road, and it is only of such we need have any fear; and so far as loose stones go, if they are large enough to want high action to get over, the horse would step on one side of such, not over them. It is chiefly the way in which a horse puts his foot to the ground that constitutes safety or the reverse. If he puts it down with a shove (for we can find no better expression,) he must be unsafe, as the shock he would experience from any opposing substance would very likely bring him down; and this would of course be just the same whether the action previous to putting the foot down had been high or low. If he puts it fairly on the ground, whether the foot was placed on the ascending part of a rise, on its summit, or on its declivity, (we mean such rises as we meet on ordinary roads,) it would make little difference. A horse has as much dread of falling as we have that he should do so; therefore he would avoid or lift his legs over any large or visible obstruction, however near he might go to the ground in his general action; if he met such obstacles as required lofty action to get over. It is only when his action is so very low, or his sluggishness so great, that he does not lift the foot high enough to clear the inequalities that he meets that he becomes unsafe. Quick action, and putting the foot properly on the ground, are two of the great desiderata in a roadster.

There is one thing that constitutes much greater danger than any bad action as to going too near the ground. This is what we have specified as malformation; of course we allude to the forequarters. We care not however faultless, high, or grand may be the action of a horse, if his fore-legs are not put on in their proper place, he never can be fit to ride. We mean by this, if his legs stand under him, all such a horse if ridden—at the slightest perpendicular, in fact overbalanced. We know of many leaning towers, some inclining more than others; still they are safe in their present state of declensions; but let that declension be increased perhaps one foot, down must come the whole fabric. So with the horse; he would go safely enough so long as his present inclination was sustained; but let him make a false step, so as to throw his fore-parts forward down he must come also. Such horses make as good harness-horses as any, and are generally strong horses at such work; for a harness-horse should not like the saddle-horse be on his haunches; horses that are, seldom can get along in harness with heavy weights behind them, particularly up hills. We will suppose we could balance a horse, as we can a stick, on the finger—for a saddle-horse the balance should be such as that the fore-parts have always an inclination to rise; for a harness-horse, it should be the reverse, as a horse may have magnificent action in his trot without being on his haunches. Heavy men should most unquestionably never ride horses with high action, and with heavy weight on him a horse wants to bring one leg to the support of the other as quickly as possible. High action on them, very likely when tired to hit their legs. Nothing can be more awful than such a horse with such a weight cutting by side by, or indeed cutting anywhere.

Sluggishness is another great cause of unsafety, but more particular in the roadster. We hate it in any horse; we are not fond of your thorough steady goers. We never knew any of them, in horse or man, good for much. Of all horses, a buggy-horse should be at least a merry one. We often use them where there is no excitement for them, nothing to cheer them but their own spirits; these should be at least equal to proof, for they often get a good deal of diluting. Personally we would never wish for a very steady one for any purpose but a shooting pony, and as we never shoot, we never wanted one. A very hot horse in hot weather is certainly anything but pleasant; but of the two we had rather be kept in a comfortable warm perspiration by a hasty horse than in a cool one by a sluggish brute.

Of all men, heavy fellows require a cheerful light-hearted horse. Such horses are very seldom unsafe. If they make a mistake, they are all alive and right in a moment. The slug, if he does the same thing, we suppose considers it a dispensation of Providence that he is to go down, and that it would be sinful to resist it; so down he goes, carrying (on his knees) the marks of his piety through life. Est modus in rebus applied as well to horses as it does to things in general. We may like horses with a little more of the curry-powder in their composition than the generality of persons do; we hold it a great improvement to most dishes; so we think it to most horses; and so far as temper goes, we are quite clear the light-hearted horse is less to be feared from its volatility than the other is from his sluggishness; for the latter, being made to do that against his inclination which the other does willingly, is sure to be put out of temper; and then such a gentleman can be as alert as any of them, and is only so when he means mischief. To an infirm person, a nag that will stand at a door for half a day without being tied, stands like a post on being mounted, and go something like one afterwards, may be desirable acquisition.—Prairie Farmer.

The Apiary.

PREPARING BEES FOR WINTER.

By A. C. Atwood Apiary Editor.

In view of the great mortality among bees every winter, keeping them for winter quarters is one of the greatest importance.

It is difficult to give advice where to winter bees, circumstances varies so much, some winter with good success in cellars, but the objection to cellars, are, that they usually are too damp, but if you will winter in a cellar keep the hive from the wall, and up from the floor and give plenty of upward ventilation, if in box hive stand them upside down on a bench, and tack wire cloth over the mouth and do not go often in with a light to disturb them. In winter we wish to retain the heat in every hive, and still allow the moisture to pass off. I advise to make as many cushions as you have hives out of old woollen stuff; makethem the full size of the honey board, and six inches thick, with dry corn husks, cut straw or chaff, take off the long board and place the cushion on instead, right on the frames have it fit tight so no bees can get up, that is important, then put a little straw in your top cover, and crowd it down on top; no matter where bees are wintered this preparation is good, get every thing ready so there will be no delay when winter comes, and see in time that the good wife does not cut up all the woollen stuff about the place in carpet rags the way mine does.

If you have any place to winter in that is about frost proof, dark and dry, and quite as soon as you see that winter has fairly set in, then remove your bees to that unless you have a place that is nearly right, it is better to winter out of doors, in the old styles of bee sheds leave the fly hole open, and close up so mice cannot get in them, pack tight at the back side and top with pea straw, say a foot thick all around; leave the front of the hives exposed to the noon sun, and if the bees have plenty honey, and nothing particularly happens they will come out in the spring all right, of course they will consume more honey wintered in this way, than in a proper repository; at least they are better out as above than placed in a wood-house, drive barn, or any such cold place.

ITALIAN BEES IN BAD ODOR.

We have a report of a meeting of the German agriculturists of Oder Bees, conveying an unfavorable account of Italian bees. Herr Horr, of Matzenheim, said he had kept Italian bees since 1857, and, taking the utmost pains with them, he became possessed of many fine colonies, and also some crosses in the first and second degree. As a result of his experience, he would not give a straw for the foreign races. There seemed to be two great drawbacks: one the foul brood and the other the strong propensity to swarm. With foul brood he had lost heavy colonies, and on the whole many large



aparies have gone entirely to ruin from these causes. Some who started with from 20 to 30 stocks have not now an ounce of honey. He acknowledged, however, that half-breeds are now doing well, and he thinks that if the money expended on Italian and other bees had been devoted to improving such native stocks or had distinguished themselves, a great progression would have been made. Many beekeepers in this country as well, have become disgusted with their experience with the Italians, and especially in their purchases from persons who ought to be above deceit and sharp practice; and now it looks as though there would be a decided reaction against Italian bee culture. The suggestion of Herr Door, that good results could be secured by propagating such stocks as distinguished themselves, seems worthy of special attention.—*N. Y. Tribune.*

**Patrons of Husbandry.**

The Dominion Grange acts entirely independently of the United States. None can read the Constitution without approving of its contents. It is our opinion that even more good may yet be introduced into its objects.

We consider that the Emporium plans might even do more good and act more beneficially, if carried out. As the Patrons of Husbandry or Granges now stand, much good may result from them. The social and intellectual part we look on as being the most important. Perhaps the majority who join the order look more to the immediate pecuniary gain they may receive by procuring their implements, &c. at a cheap rate, which they are enabled to do.

A private circular has been sent to the Secretaries of the different Granges, quoting prices from manufacturers that implements may be procured at. Many, no doubt, will avail themselves of the advantages therein stated, and an impetus to onward movements will be the result.

There are now 59 Granges established in Canada. As far as we are able to judge, the best informed farmers that have joined the organization are satisfied with it, and much good may result from discussions and social gatherings. There are some few members who only look to the present saving of a few dollars on some purchase; such are not active or good members, but have to be borne on the shoulders of the workers. The less of that class a Grange is composed of, the better.

We do not think the Order will injure any legitimate or proper business. We think there is a great deal of unnecessary ceremony that might advantageously be omitted, thus giving more time for valuable information being disseminated.

It is our impression that men should not be too strongly pressed to join this organization, but let them apply themselves. Every member cannot be too strongly cautioned not to divulge the prices sent to them by the manufacturers. Manufacturers and dealers should take no heed of a private individual claiming to be a Patron, as the business should only be done through the Secretaries of each Grange.

There has been a loss of about \$100,000 to the Patrons of Husbandry of California by engaging too many ships, and the failure of an agent. The loss will cause greater care and vigilance in financial matters in other parts. It is our opinion that many place too great importance on the dealing system. In regard to implements it may be right, but where persons live near large cities the competition in all groceries and dry goods is reduced to mere working profits. If the Patrons gain an advantage on tea, they will pay higher for some other commodity. We cannot exist without our regular dealers.

Agricultural Clubs are a failure in Canada. The Patrons may take their place and be a success, and will be if the right men take hold of them, and they are taking hold; thus progress will be made the next few months.

We hear from the Secretary that numerous applications are being made from the different provinces for the establishment of Granges, and that the Masters of Subordinate Granges are holding meetings in different parts of the country. Some of the Granges in this vicinity are progressing much better than others, but all are increasing in the numbers of their members.

Persons wishing for information concerning the Grange organization should address Thos. Dyas, Sec'y Dominion Grange, London, Ont.

**Granges Organized Since Last Issue.**

**NIAGARA DISTRICT DIVISION GRANGE.**

Master, Robert Green; Overseer, John McElashan; Lecturer, J. B. R. Moore; Steward, W. M. Sloan; Asst.-Steward, S. H. VanEvery; Chaplain, Dexter D. Overholt; Treasurer, Edward Morris; Secretary, Peter Learn; Gatekeeper, James Moore; Ceres, Mrs. Daniel Metler; Pomona, Mrs. John McElashan; Flora, Mrs. Robert Green; Lady Asst.-Steward, Mrs. S. H. VanEvery. *Executive Committee.*—W. Pemberton Page, Daniel Metler, W. M. Sloan. *Division Grange Deputy.*—Daniel Metler, North Pelham.

49. PIONEER GRANGE.—Wm. Keith, Master, Hammond P. O.; Jas. M. Mundell, Secretary, Hammond P. O.

50. WOODLAND GRANGE.—A. Webster, Master, Jackson P. O.; Stephen Webster, Secretary, Jackson P. O.

51. COLINVILLE GRANGE.—John Nelson, Master, Ossian P. O.; James Fiddes, Secretary, Ossian P. O.

52. TRAFALGAR GRANGE.—Hiram Alberson, Master, Trafalgar P. O.; Jas. B. Marlatt, Secretary, Trafalgar P. O.

53. PERSEVERANCE GRANGE.—Wm. Burgess, jr., Master, Burgoyne P. O.; Wm. Burgess, jr., Secretary, Burgoyne P. O.

54. HORNBY GRANGE.—Christopher P. Preston, Master, Hornby P. O.; Wm. S. Hall, Secretary, Hornby P. O.

55. SUGAR LOAF GRANGE.—John Scholfield, Master, Port Colborne P. O.; D. J. Stone, Secretary, Port Colborne P. O.

56. BOND HEAD GRANGE.—John D. Fraser, Master; Geo. Gaviler, Secretary.

57. GRANGE.—Hugh McLaughlin, Master, Spring Bank P. O.; John Harrington, Secretary, Keyser P. O.

58. OSBORNE GRANGE.—James Duncan, Master, Osborne P. O.; Donald McLellan, Secretary, Osborne P. O.

59. PROSPECT GRANGE.—Thos. Houston, Master, Paisley P. O.; Wm. Bradley, Secretary, Paisley P. O.

**Miscellaneous.**

**MILK AS A DIET.**

It is somewhat singular that a prejudice should exist among the masses in relation to the injurious effect of various articles of food. Milk is universally conceded to be eminently proper, in fact the best diet for children. For adults we presume that the testimony among the majority would be that it was altogether unfit to be used as an article of food, especially in the summer time, the principal objection urged being that it is "bilious."

The popular prejudice against milk by the inhabitants of cities is due more to their artificial life and the adulteration of their artificial use than to any other cause. Indeed, when we were young, milk fresh drawn from the cow and taken on an empty stomach was prescribed by physicians as a cure for dyspepsia. So far from being injurious, it is one of the most healthy articles of daily food that can be taken by the average man.

There is no more innocent food among the whole category of aliments than pure milk. It contains bone, muscle, fat and brain producing substances, in an eminent degree, and just in the proper shape of assimilation. It is true that milk taken in inordinate quantities, or if the diet be suddenly changed to milk, the person will sometimes become constipated, perhaps, or else the reverse.

This is not due so much to the milk as to the change in the diet, for various changes in the ordinary food would produce the same effect. It is true that there is now and then an individual who cannot take milk, but this would apply to almost any other article of food. There are here and there individuals with whom some of the common articles of food do not agree. These isolated facts invalidate nothing.

We stated the fact that milk used to be prescribed for dyspepsia to be taken before breakfast. Still, as an article of daily food we should not advise this course. If taken in this manner it will destroy the appetite, and this may perhaps be one reason why it is good to be taken in this way by weak stomachs. It is nutritious and easily digested, and thus taken it may prevent over-loading the stomach with more indigestible food. We should not advise it to be taken either between or before meals, but as a part of the meal, preferably at its close.

Milk is really becoming one of the great reliances of the physician in various cases, especially in typhoid fever when the patient has become so low as to be incapable of taking solid food. We are glad to see that the prac-

tice is becoming common among many sensible business men of Chicago to take milk with oatmeal or cracked wheat porridge as a simple lunch at mid-day when dining downtown. It is also fashionable so to do in the large eastern cities. It is to be hoped the fashion will continue to grow, for there is no class of men who need the constituents contained in this simple diet more than do the business men of our cities. If practiced by the average fashionable woman also, we should see fewer sharp elbows and general skinny anatomies than we do.

One of the principal objections to a milk diet in our cities is the fear of adulteration or impure milk. This may easily be got along with by knowing of whom you get the milk. It is true there is a vast quantity of milk sold in our cities, the produce of country dairies and undoubtedly is served measurably pure; or a least without other adulteration than water, and this, although a rascally one, is innocent of bad effects on the health.

If this be true, it can be obviated by test and careful watching. The customer may test the commodity of the milkman; he again may test that of the dairyman, and in the end it will result in honest dealing all round. The chronic complaint of the adulteration of milk is, as a rule, unfounded. Isolated cases are met with, but so far as my experience goes, the milk furnished to the milkmen of Chicago by the country dairies is good and pure. It may be kept so by ordinary watchfulness.—*Western Rural.*

**The Markets.**

The low prices of farm produce are confined to wheat. For barley and oats there is an active demand, with high prices—for barley especially. Good malting barley is always in demand, and this year its price is unprecedentedly high. It has been a deficient crop in England; in France the crop was in every respect a good one, but was all bought up very early.

The demand for oats for horse feeding is always in excess of the supply, and the average price at Mark Lane has within a few years advanced from 21s 11d to 27s 11d.

Dairy Products have brought high prices throughout the season, but there is now a downward tendency in England and America. The Liverpool cable quotation is 71s for cheese, a lower price than it commanded some time since. The market is quiet and there is no tendency to advanced prices. The best lots of cheese offered for sale at Ulster, by last advices, would bring only 15s to 15½. The highest price in the New York market is 16c. In Toronto the market is quiet, with prices at 14c to 14½. Butter in the American market has also a downward tendency. In Detroit the range for fair lots of butter is from 29c to 31c.

**PRODUCE MARKETS.**

NEW YORK.—Wheat per bushel, \$1.06 to \$1.16; corn 86c to 88c; barley, prime \$2.75 to \$2.90 per 100 lbs. Canadian \$3 to \$3.05; oats 66c to 68c per bushel. CHICAGO.—Wheat 88c to 89½c per bushel; Barley \$1.81; Corn 72c to 77c.

TORONTO.—Wheat—Spring 96c; Fall 81 to \$1.03 per bushel; Oats 43c to 45c; Barley \$1.10 to \$1.15; Peas 75c to 80c; Rye 70c; Hay \$16 to \$22; Dressed Hogs, per 100 lbs., \$6.50 to \$7.25.

LONDON.—White Wheat per cental, \$1.60 to \$1.70; Red Wheat \$1.40 to \$1.50; Spring Wheat \$1.65 to \$1.65; Barley \$2.20 to \$2.25; Peas \$1.25 to \$1.28; Oats \$1.12 to \$1.14; Corn \$1.20 to \$1.50; Rye \$1.25; Eggs, fresh, per dozen, 18c to 20c; Keg Butter 22c to 25c; Crocks 27c to 28c; Rolls 20c to 30c; Cheese—dairy 10c to 11c; Factory 11c to 11½; Hay \$14 to \$15; Wo-1 3c to 36c; Potatoes, per bag, 85c to 90c; Apples 40c to 60c.

**Produce, Prospects and Markets.**

An Essex correspondent to the *Mark Lane Express* says:—"Although we had 12 acres less in the wheat this year, we have about 80 quarters more wheat than in 1873. It is this not general this year. As the diminished price the advantage is small to the farmer but great to the country at large." And such is the general tenor of our advices from various sources. There has been in England good yields of grain especially of wheat, with good farming weather; and the consequence has been prices lower than in some previous years. The advantage is great to the country at large; and, though the farmer receives less for his load of wheat the season must have been a profitable one. The price of wheat is low, but this is not the case with most other products of the farm. Oats and barley being high prices, butter and cheese are high. It is true dairy products are in yield the reverse of the grain crop, and so are they in the price they bring. This is a wheat year so our flour is cheap, while the drought of the season has reduced the ordinary return from the dairy, and dairy produce is high.

Prices are ruled not only by the abundance or scarcity of the past season they are affected also by the prospects of the succeeding year, and the prospects for the crop of 1875 gives so good promise that it depresses the market still more. The season for fall work and seeding has been as favorable as could be desired, in England and on the continent or Europe.

With good prospects for the coming year and good yield in the past harvest, averaging 30 bushels of wheat per acre in England, the great produce market of the world, the prices must be low. In considering the quantity of the supply, we must not overlook the superior quality of grain, an item in itself equivalent to a much larger yield, were it damp or soft. The potato crop in its produce and condition has always an effect on the market, and potatoes in England, Ireland and Scotland have produced well, with little tendency to disease. Producers on the continent have been unwilling to sell at the price given, and English farmers have not been pressing their wheat on the market. They have sent forward barley and inferior grains, which command relatively higher prices than wheat, still the supplies in market are fully equal to the demand, and prices low.

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My annual catalogue of Vegetable and Flower Seeds for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season. Having made new vegetable specialties for many years, growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strains. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass.

**OFFICE OF THE Agricultural Mutual Assurance Association of Canada.**

NOTICE IS HEREBY GIVEN THAT THE BOARD of Directors have this day declared an assessment of 50 per cent, payable on or before the 1st day of January, 1875, to be levied on all Premium Notes embraced between Policy No. 73,300 and No. 76,722 inclusive. The assessment this year is at the same rate as for many years past, and experience justifies the belief that this rate will never be exceeded.

By order of the Board,  
D. C. MACDONALD,  
Manager.

London, Oct. 25, 1874. 12-11

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THE "FARMERS' ADVOCATE" FOR 1875

TENTH YEAR OF PUBLICATION I

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It represents a poor, bare-footed boy, ragged and torn, who has just entered the door of the farm house, and is telling his pitiful story to the mother of the family.

SECOND PRIZE.—Four ounces of the RED FERN SPRING WHEAT, postage prepaid to destination (for description see November number of ADVOCATE).

THIRD PRIZE.—Four ounces of the EGYPTIAN WHITE SPRING WHEAT, about which there has been such a stir. This wheat has a large head, with some little heads growing out on two sides of it (see December ADVOCATE).

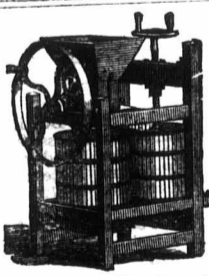
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FARMERS' ADVOCATE FOR 1875.

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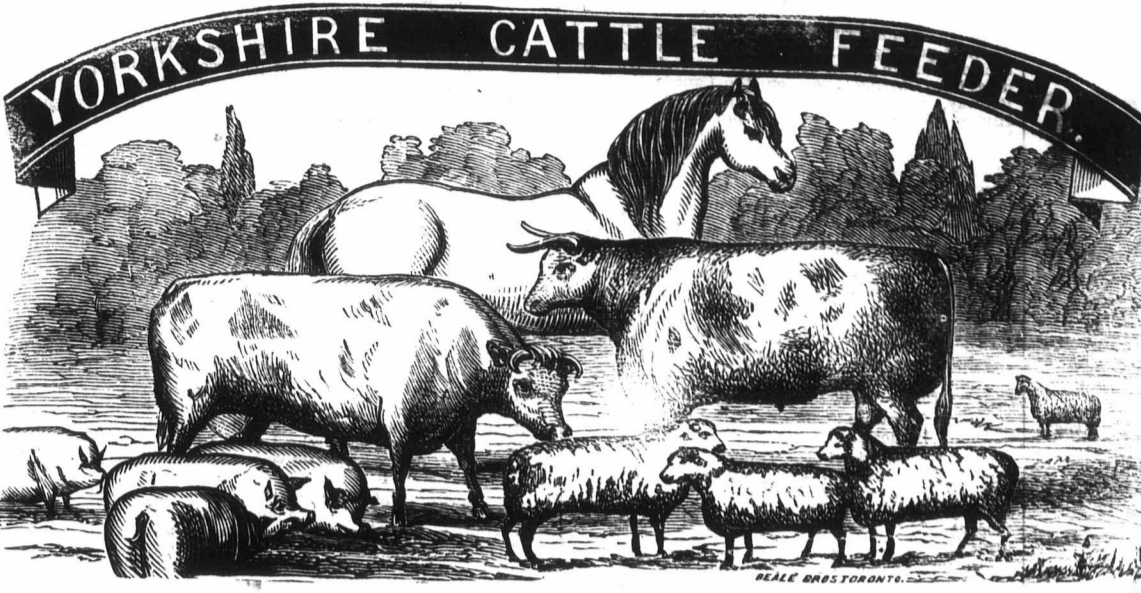
TESTIMONIALS

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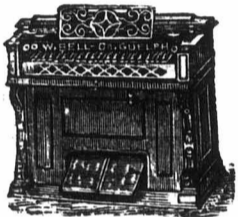
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THE AGRICULTURAL MUTUAL ASSURANCE ASSOCIATION OF CANADA.

HEAD OFFICE, - LONDON, ONT. Licensed by the Dominion Government.

CAPITAL 1ST JAN., 1871.

\$ 231,242 25.

Cash and Cash Items, \$72,289 55.

THIS COMPANY continues to grow in the public confidence. On 1st January, 1871, it had in force 34,528 POLICIES,

Having, during the year 1870, issued the immense number of 12,319 Policies.

Intending insurers will note:- 1st-That this is the only Fire Mutual in Canada that has shown its ability to comply with the law of the Dominion, and deposit a portion of its surplus funds for the security of its members, - \$25,000 having been so deposited

2nd-That being purely Mutual, all the assets and profits belong solely to the members, and accumulate for their sole benefit, and are not paid away in the shape of dividends to shareholders as in the case of proprietary companies.

3rd-That nothing more hazardous than farm property and isolated dwelling houses are insured by this Company, and that it has no branch for the insurance of more dangerous property, nor has it any connection with any other company whatsoever.

4th-That all honest losses are settled and paid for without any unnecessary delay.

5th-The rates of this Company are as low as those of any well established Company, and lower than those of a great many.

6th-That nearly four hundred thousand dollars have been distributed by this Company in satisfaction of losses to the farmers of Canada during the last ten years.

7th-That the "Agricultural" has never made a second call on their members for payments on their premium notes

Farmers, patronize your own Canadian Company that has done good service amongst you. Address the Secretary, London, Ont., or apply to any of the Agents.

BUSINESS EDUCATION.

FARMERS' SONS WHOSE EARLY EDUCATION has been neglected, and wish to obtain a practical knowledge of Book-Keeping, in all its branches, Arithmetic, Writing, Correspondence, Composition, Dictation, Spelling, Commercial Law, Telegraphy, Phonography, &c., cannot better spend their leisure time during the coming winter than by attending the

London Commercial College

for a few months. It will be a great benefit even if you intend to follow the business of farming, and if you wish to engage in other business you will then be qualified to do so. Our terms are the most liberal of any institution of the same standing, and we guarantee satisfaction to all who come determined to improve their time. Students may enter at any time, and the sooner the better. Do not wait till January, but send at once for a circular containing all particulars.

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This is Bee-Hunting Time!

I HAVE PRINTED A FULL GUIDE FOR HUNTING BEES in the Woods, and have thoroughly tested my Bee Scent at the Provincial Exhibition in Toronto. The price of a bottle of Bee Scent and the Guide is 50c. Address

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FARM FOR SALE.

LOT 16, 2nd Concession, Malahide, County of Elgin, about 4 miles east of Port Bruce, containing 200 acres, 75 acres cleared, the balance well wooded. The place is well watered by a stream running through, on which there is a SAW MILL. Terms-\$4,000; \$1,500 cash, balance on time to suit purchaser. For particulars apply to CAPT. J. THOMPSON, Port Bruce, County of Elgin, N. B. - The above opportunity is seldom met with by either capitalists or farmers.

TYTLER & ROSE, Family Grocers and Seedsmen. Timothy and Clover seed; all kinds of field seed, turnip, mangel, etc., etc., imported direct by themselves and of the very best quality. - Land Plaster. TYTLER & ROSE, Wine merchants and Seedsmen, Dundas Street.

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Paid-up Capital.....\$2,000,000 Res..... 350,000 Contingent Fund..... 13,000

THE LONDON BRANCH OF MOLSONS BANK, Dundas Street, one door west of the New Arcade.

ISSUES DRAFTS ON LONDON, ENG.; NEW YORK, U. S.; ST. JOHN, N. B.,

And all the principal Cities and Towns in Ontario and Quebec. Offers unusual facilities to those engaged in the produce business. Deals liberally with merchants and manufacturers. Discounts for the Farming community. Buys and Sells Sterling Exchange, New York Exchange, Greenbacks, &c., at very close rates. Makes Advances on United States Currency and Securities on reasonable terms.

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Affords opportunity for safe and remunerative investments of accumulative savings.

JOSEPH JEFFERY, Manager London, Sept. 14, 1870.

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JAS. M. WILSON. JNO. HASKETT. 3-tf AGRICULTURAL

INVESTMENT SOCIETY AND SAVINGS BANK.

OFFICE DUNDAS STREET WEST. (Late Huron & Erie Office.)

The conditions of the Act amalgamating "Freehold and Union" with the above Society have been complied with, and the following officers elected:- President-Alexander Anderson, Esq., M. D.; Vice-President-Wm. Glass, Esq., (Sheriff Co. Middlesex); Inspecting Director-Richard Bayly, Esq.; Solicitor-David Glass, Esq. Board of Directors-Richard Tooley, Esq., M. P. P., Lieut. Col. James Moffatt; George Birrell, Esq.; A. T. Chipman, Esq.; John Wright, Esq. (of Wright & Durand); Adam Murray, Esq.; John Mills, Esq.; D. Regan, Esq.; James Owsley, Esq.

BORROWERS Will be dealt with liberally, and money advanced with the least expense and delay possible

THE SAVINGS BANK

Is now open, and money will be received on deposit, in large and small sums, and interest allowed at the rate of 5 to 6 per cent., as arranged for.

JNO. A. ROE, Sec. & Treas. London, April 30, 1873. 6-tf

MILLER'S TICK DESTROYER!

FOR SHEEP.

IT DESTROYS THE TICKS, PROMOTES THE Growth of the wool, and improves the condition of the animal. Sold everywhere in boxes at 35c., 70c. and \$1. A 35 cent box will clean 20 sheep.

HUGH MILLER, Agricultural Chemist, Toronto. It may be had at the Agricultural Emporium London, 6-74

OCEAN PASSAGE. - Persons intending to take a trip to the Old Country, will find it to their advantage to go by the Steamers of the National Line large, safe and comfortable vessels. Fare low. Apply to F. S. CLARKE, next door to the Advertiser Office, London.

GREAT SALE AT CHISHOLM & CO'S. - Whole winter stock reduced. Now for Bargains at the Striking Clock.



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Improved Farms and Wild Lands for Sale in all the Western Counties.

Over 200 Improved farms for sale to Select Particulars of some we are not at liberty to publish. Information given on application.

Good and first-class Water and Steam Power Grist Mills for sale, in Middlesex, Elgin, Kent and Norfolk.

Also a few desirable Country Residences, with from ten to thirty acres of land. Trust Funds for investment on Real Estate and Mortgages bought.

ESSEX.

54-142, Township of Tilbury West.—100 acres, 40 improved; new frame barn, shed and stable. One mile from Comber Station, on the Canada Southern Railway. Price \$3,000; terms easy.

75-165, Township of Rochester.—100 acres, high and dry; good drainage; hickory and cordwood. One mile from the Canada Southern Railway. Price \$1,000; terms easy.

77-167, Township of Colchester.—861 acres, 120 improved; oak, hickory, walnut, white wood; good orchard; light loam; comfortable two-story house, barn and stables; churches and schools near; good roads; chestnut orchard, average yield \$150 a year. Price \$10,000; terms easy.

129-211, Township of Colchester.—100 acres, 20 acres clear; 10 more acres chopped; timber good; oak, hickory, beech, maple, elm, and black and white ash. One and a half acres choice young fruit trees; fences good; well supplied with water; soil, loam, with clay under; frame house; frame stable; sheds and potash works; cellar; churches and school close; four and a half miles from Essex Centre Station, on the Canada Southern Railway. Price \$2,100; terms very easy.

127-209, Township of Colchester.—200 acres. A good, heavily timbered lot, estimated to have 10,000 cubic feet of white oak, 3,000 feet red oak, 12,000 cords of wood and 3,000 oak ties; crossed by the Canada Southern Railway; 2 1/2 miles from Colchester; 4 1/2 miles from Essex Centre. Price \$16.00 an acre.

ELGIN.

106-190, Township of Southwold.—75 acres, about 65 improved. Timber, black ash, beech and elm; large bearing orchard, grafted fruit; soil, clay loam; well underdrained with tile; good fences, board and rail; frame house, 24x28; frame barn, 32x50, stable under; cow sheds for 20 head; milk cellar; schools and churches 1 mile; Port Stanley 6 miles. Price \$3,500; part on time.

80-132, Township of Bayham.—50 acres wild land; Price, \$1,025; one-third cash, balance in three annual payments.

160-132, Township of Aldboro.—200 acres—about 130 acres clear; balance timber, beech and maple; good orchard, grafted fruit; clay loam; well watered; well fenced; good, new and large frame house; barns, sheds and stables good; churches and schools close; village 1/2 mile; cheese factory in the village. Price, \$3,000.

4-23, Township of Dunwich.—100 acres, 50 cleared, 50 well timbered; maple, beech, oak, elm and ash. Good bearing orchard, grafted fruit; clay loam and sand; frame house and good barn; churches and schools within 2 miles; railway station 2 1/2 miles. Price \$3,000; terms easy.

6-40, Township of Dunwich.—92 acres, 60 improved, 32 timbered; beech and maple; about 100 fruit trees; clay and sand loam; frame house; churches and schools close; railway station, 2 miles. Price \$3,000; terms easy.

12-64, Township of Bayham.—140 acres, 70 improved; maple, beech, chestnut, black ash, and a few pines; a good sugar bush of 900 trees; orchard; grafted fruit; clay loam; timber on this farm sufficient to pay for it; under-drained; frame house; good out-buildings; churches and schools close. Price \$4,000; terms easy.

30-144, Township of Yarmouth.—100 acres, about 60 improved; balance heavy timber; fine orchard, excellent fruit; mixed loam. Large comfortable frame house and out-buildings; frame barn. School one mile; Churches four miles. Price \$3,000; terms very easy.

HURON.

28-131, Township of West Wawanosh.—100 acres, 65 improved; beech and maple; clay loam; never-falling springs. Orchard; log house, log stable. Schools close; churches within two miles; railway station, six miles. Price \$2,200.

44-161, Township of West Wawanosh.—43 1/2 acres, 20 improved; balance principally hardwood, some pine; orchard; mixed soil; good springs; log house in good repair. Churches and schools near; Lucknow seven miles. Price \$1,200.

KENT.

146-228, Township of Harwich.—400 acres, near the Rondeau Harbor. This land is capable of being made into two, three or four first-rate farms. This locality is considered the Garden of Canada. Soil a fine

black loam, on clay subsoil. The climate is mild, and there are no late spring frosts to injure vegetation. A fine fruit growing district; peaches, grapes and other choice fruits are grown here most successfully. Ten miles from Charing Cross, on the Canada Southern Railway, and close to the projected route of the Huron and Erie Railway. The proprietor has the lot laid out as follows: 100 acres on north end, with about 30 acres clearance, and log buildings; price, \$3,700. 150 acres, centre part, with about 30 acres clearance; price, \$3,500. 100 acres, south part, with log house and peach orchard, about 30 acres clearance; price, \$2,000. 50 acres south-east of creek, with about 14 acres clearance; price, \$1,000. The timber on these lots is good hardwood. Terms easy.

114-196, Township of Zone.—100 acres, about 10 acres improved; balance heavy timber, beech, maple, hickory, ash, elm, oak and basswood; one well, good fence; soil, sandy loam. Drainage good; two township drains through lot. Good neighborhood; churches and school one mile. One mile from Bothwell Railway Station, and a good market. Good roads. Price, \$2,100. Terms to suit purchaser.

148-225, Township of Dawn.—East 1/2 lot 23, on the 2nd con. 100 acres; \$7 an acre.

152-210, Township of East Tilbury.—81 acres; north east 1/2 lot 24, on the 9th con. A good timbered lot, 5 miles from Tilbury Station, on the Canada Southern Railway; 6 miles from Lake Erie, close to a good settlement. \$3 an acre; one-third cash, balance on time to suit purchaser.

92-174, Township of Sombra.—100 acres, 70 acres improved; orchard, 400 fruit trees; soil, clay loam; high and dry; churches and schools 1/2 mile; log house; Wallaceburg 2 miles; Chatham 16 miles. This farm fronts on the River Sydenham; steamboats constantly passing. Price, \$4,000.

LAMBTON.

70-86, Township of Sombra.—100 acres wild land; 5 miles from River St. Clair. \$7 an acre; terms easy.

71-81, Township of Dawn.—100 acres wild land; heavily timbered, hardwood. Dry and heavy soil; \$7 an acre; terms easy.

73-90, Township of Enniskillen.—150 acres wild land; black ash, oak and elm. \$8 an acre; terms easy.

15-95, Township of Warwick.—150 acres; 80 clear. Beech and maple. Fine sugar bush. Orchard grafted fruit. Light loam, inclined to clay. Good and comfortable red brick house, beautifully situated and surrounded with fine shade trees. Good barn, stable and out-buildings. Churches and schools close. Price, \$7,000.

48-100, Township of Moore.—75 acres; 50 improved; balance beech and maple. Meadow clay loam, partly underdrained. Orchard. Good frame house, frame barn, log barn and log stables. Churches and schools near. Price, \$3,500.

74-102, Township of Enniskillen.—100 acres wild land heavily timbered, oak, elm and maple. Price, \$10 an acre.

62-78, Township of Dawn.—100 acres wild land; oak, black ash, beech and maple. Price, \$700; terms easy.

63-79, Township of Enniskillen.—185 acres timbered land; dry, good and heavy soil. Price, \$7 an acre; terms easy.

69-85, Township of Zone.—50 acres wild land; first-rate land. \$10 an acre; terms easy.

80-170, Township of Sombra.—53 acres, 40 improved, hickory, elm and black ash. Clay loam. Orchard, good frame house, barn, drive shed, cow shed, &c., stone cellar. Churches and schools within easy distance. Price, \$2,700.

98-125, Township of Brooke.—100 acres wild lands; west 1/2 lot 5 on 5th.

89-171, Township of Moore.—100 acres, 68 acres improved; balance best heavy timber. Good orchard, large and nearly new frame house, barn and shed; black clay loam; good neighborhood; churches and schools close. Price, \$4,000.

106-182, Township of Brooke.—140 acres, 60 improved; hardwood timber; never-falling spring; also creek; orchard. Soil, clay loam; frame house; log barn, stable and granary. Price, \$3,850; terms easy.

107-189, Township of Plympton.—200 acres, 85 improved; well timbered, mostly hardwood. Soil, clay loam; good spring; also, small creek; empties into Bear Creek, about 60 rods distant; well fenced; log house, 22x26; log stable. Churches and schools 1 mile, 2 miles. Wanstead Station, on Barmia Branch of G. W. R., 2 miles; Watford, 8 miles; Wyoming, 5 miles. Price, \$3,600; \$2,000 cash, balance on time.

111-193, Township of Plympton.—100 acres, 28 improved; good location. Four miles from Wyoming Station, on the G. W. R., and four miles from Cam-Stone, on the G. T. R. Soil, clay loam. Timber larche, on the G. T. R. Soil, clay loam. Timber mostly hardwood. Churches, school and post office close; good roads, and an improving neighborhood. Price, \$2,350.

113-195, Township of Dawn.—100 acres, 70 acres improved, balance good hardwood timber. A never-falling, flowing spring. Good orchard. Soil, clay loam. Comfortable hewed log house, well finished, loam. Comfortable hewed log house, well finished, about 8 rooms; frame barn, 30x50, stable with loft, over 30x18; sheep shed and stable 30x12, all frame, with oak studs and sills; 2 1/2 miles from village; school and churches close. Price, \$2,900, part on time.

141-223, Township of Moore.—South 1/2 lot 1 on the 1st concession, 100 acres. \$10 an acre.

142-224, Township of Enniskillen.—West 1/2 lot 1 on the 4th concession, 100 acres. \$11 an acre.

TOWNSHIP OF ENNISKILLEN.

135-217.—West 1/2 of lot 11 on the 1st concession, 100 acres.

136-218.—Part of lot 18 on the 1st concession, 34 acres.

137-219.—Part of lot 17 on the 2nd concession, 107 acres.

138-220.—Part of lot 16 on the 3rd concession, 5 acres.

139-221.—Part of lot 22 on the 3rd concession, 190 acres.

140-222.—Lot 24 on the 3rd concession, 200 acres.

MIDDLESEX.

46-101, Township of London.—137 acres, about 107 clear; 30 heavily timbered, best hardwood timber. Said to be worth \$200 an acre. Loam. Comfortable frame house, with brick foundation, and cellar just renovated and equal to new; 11 rooms. Boundary fences. Lumber. Orchard and garden. Good and extensive barns, root house, &c. 2 1/2 miles from London. Good gravel road. Price \$14,700; terms easy.

39-148, Township of Westminster.—10 acres. New frame house, four rooms and cellar. Good barn and out-houses. Good orchard. Strong loam. Churches and schools close. Wharfedale road. Within about a mile of the City of London. Price, \$2,000.

35-151, Township of London.—8 1/2 acres. Hewed log house, 4 rooms and cellar. Good oak frame barn, stable and hog pen. Good orchard. Loam. School and churches about a mile. Within 2 1/2 miles of London. Price, \$1,100.

41-157, Township of London.—6 acres. Good, roomy brick cottage, 7 rooms and good cellar. Frame stable, coach-house and wood shed. Orchard. Some shade trees. Two good wells and 3 rain-water cisterns. Light loam. Churches and school about 1/2 mile. London 1 1/2 miles. A nice property; corner lot. On good main gravel road. Price, \$3,000.

1-55, Township of Westminster.—188 acres, 153 clear. Beech and maple. Two fine orchards, grafted fruit, all under good fence. Clay loam. Two-story frame house, large frame barn, stable, sheds, &c. Good gravel roads. London 8 miles. Churches and schools close. Price, \$10,000; terms easy.

7-50, Township of Lobo.—138 acres, 80 clear. Orchard grafted fruit; living springs; sandy and clay loam. One and a half story frame house, two frame barns. Schools and churches within two miles. Price, \$7,000; terms easy.

14-93, Township of Delaware.—105 acres, 40 improved. Beech, maple, oak and pine; fine orchard grafted fruit. Clay loam. Large frame house, with good cellar, good new barn, drive house and sheds. Good gravel roads; London 8 miles. Price, \$3,675; terms easy.

49-158, Township of London.—200 acres, 160 improved—hardwood. Two fine orchards grafted fruit. Clay loam, underdrained. Large comfortable frame house, on stone foundation; 2 barns, driving shed, stables, cattle sheds, &c.; large stone cellar. Churches about 2 miles; London 12 miles; Luton about 2 miles; schools close. A fine orchard, and in a high state of cultivation. Cheese factory on the farm. Price, \$12,000; terms easy.

76-166, Township of Delaware.—300 acres, mostly improved. Extensive river frontage, strong land, good sugar bush. Large two-story brick house and good sugar bush. In bad order. Beautifully situated out-buildings, but in bad order. A fine orchard of the river, 2 miles from Komoka Railway Station, on the G. W. R. Churches and schools close. A fine stock or dairy farm, produces a large quantity of hay. Price, \$13,800; terms easy.

78-168, Township of Elfrid.—74 acres, 40 improved. Good hardwood. Clay loam. Log house, log stable, small orchard. Churches and schools near. Price, \$2,500.

92-169, Township of Elfrid.—96 1/2 acres, 70 improved. Beech, black ash, oak, maple and basswood. Black clay loam. Small orchard, frame house, barn and shed. Price, \$3,600.

97-179, Township of Metcalfe.—230 acres, 180 acres improved; beech and maple. A fine orchard of grafted fruit, about 10 acres. Clay and sandy loam. Well fenced. Never-falling creek. Large frame house in bad order. Good and extensive out-buildings, brick dairy. Cheese factory on the farm. Market town and railway station 2 1/2 miles. Churches and schools near. Price, \$9,000—\$4,000 cash, balance on time to suit purchaser. This is a first-class dairy farm.

98-180, Township of Metcalfe.—80 acres, 60 acres improved, beech and maple. A small orchard. Clay and sandy loam. Good frame house, 26x36; good barn, 35x50; root house. Two creeks. Market town and railway station 2 1/2 miles. Churches and schools close. This is a really good homestead and farm, within 1 1/2 miles of the above farm. Price, \$2,500—\$1,500 cash, balance in two years.

103-185, Township of Caradoc.—100 acres, 80 acres improved. Timber—oak, ash, cherry and basswood. Soil sandy loam. Comfortable house, brick and stone frame. Good out-buildings of all kinds. Good root house. Suitable for all kinds. Good root house. Good frame house, nearly new. Soil, clay loam. Within 3 miles of Strathroy. Price, \$6,000. Half cash, balance on time. This would make 2 good 100 acre farms, the main road equally dividing it.

150-222, Township of Adelaide.—200 acres, about 60 acres improved. Small orchard; timber best hardwoods improved. Small orchard; brick house on corner; tavern stand; good stable and barn combined. Within three miles of Strathroy; would make two 100 acre farms, the main road equally dividing it. Price, \$6,000; terms easy; adjoins the above lot.

131-213, Township of Caradoc.—230 acres, 130 acres improved and free of stumps. Timber—beech, maple and elm. A good sugar bush, about 300 trees. Small orchard, grafted fruit. Comfortable log house, 4 rooms and cellar; frame barn, 30x50; frame shed, 115x15; stable, 20x25. Churches and school about 2 miles. London 17 miles. Mount Brydges a capital good stock or dairy farm, situated on the river Thames. Price, \$8,000; terms easy.

132-214, Township of Lobo.—50 acres, all improved, and in good state of cultivation. Small orchard; loamy soil. Comfortable frame house, about 8 rooms; wood shed, barn and stable; good cellar and stone milk-house. Close to railway station. Churches and school. All plowing done, and five acres of fall wheat in. Price, \$2,700.

144-226, Township of Westminster.—135 acres, 100 acres clear, balance heavy timber, beech and maple. Good frame buildings in good repair; house, barn, driving shed, &c. Good orchard. Soil clay loam. Churches, school and post office convenient. On good gravel road. London 10 miles; St. Thomas 6 miles. A very capital farm. Price, \$3,000.

145-227, Township of Caradoc.—50 acres, 25 acres improved. Timber, beech and maple. Soil, sandy loam. A good frame house worth \$700. Two miles from Strathroy. Price, \$1,000.

115-197, Township of Biddulph.—100 acres, 70 acres improved, balance timber, mostly maple and black ash. Soil clay loam. Good springs; well fenced. Hewed log house, 2 1/2 miles; log barn and stable, cellar. School close. Church, R. C., 5 miles. London, 11 miles; Lucan, 4 miles; Granton, 2 1/2 miles. Price, \$3,500; terms very easy to suit purchaser.

120-202, Township of London.—6 acres. Comfortable frame house, 9 rooms. Fine spring. Good loamy soil; well fruited. On a good road, within 7 miles of London. Price, \$1,500; terms easy.

121-203, Township of London.—4 1/2 acres, within two miles of London, on good road. Fine garden, soil. Good building site; some fruit and shade trees; capital spring; small frame house. Price, \$700, part on time.

122-204, Township of North Dorchester.—About 6 acres, 40 acres in good cultivation. Soil gravelly loam. About 5 acres timber; a young orchard; never-falling creek; well fenced. Log house, 20x28; frame barn, 40x20; log stable; cellar. Dorchester Station, 5 miles; London, 7 miles. Price, \$2,000.

126-208, Township of Caradoc.—200 acres, 40 acres improved, 70 acres heavy timber, all hard wood. Soil sandy loam; well supplied with water; small orchard. Frame house. One mile from Strathroy. Price \$6,500 terms very easy.

NORFOLK.

2-16, Township of Woodhouse.—208 acres, 168 improved; balance heavily timbered, oak, chestnut and pine. Abundance of water; never-falling spring. Large orchard grafted fruit. Large, comfortable frame house, in good order; out-buildings, barns, &c., extensive and good. Board fence on the outside; iron fence rail. Sandy loam. Four miles from Simco county town. Price, \$3,500; terms easy.

5-25, Township of Walsingham.—200 acres, 34 clear. Hardwood and pine. Light loam. Well fenced. Churches and schools within 1 1/2 miles. Price, \$2,500 terms easy.

16-109, Township of Charlotteville.—90 acres, 78 improved. Good orchard; spring creek; light loam. Frame house. School near. Nine miles from Simco county town. Price, \$3,000.

47-162, Township of Charlotteville.—100 acres, 100 improved. Oak, beech, maple and pine. Mixed soil. Good house, log barn and cellar; orchard. Churches and schools within 1 1/2 miles. Price, \$1,600.

60-75, Township of Walsingham.—200 acres; timber mostly gone. Dry, good land; light loam. Price, \$1,200; terms easy.

123-205, Township of Windham.—100 acres, all improved. Soil sandy loam; two good wells; small orchard; well fenced. Well finished log house; barn, 44x56; new shed, 24x24. Stone cellar. Churches and school 1 mile. Woodstock and Lake Erie Railways cross the farm; Station on the next lot. The miles to stations on the Canada Southern and G. W. R. Lines. Price, \$3,000, part on time.

124-206, Township of Windham.—50 acres, 30 acres improved. Timber—beech and maple. Soil heavy well fenced; small orchard. Good frame house; barn, 30x50; shed 20x50; stone cellar. Close to church and school on next lot. Two miles to Windham station. Price, \$2,100.

125-207, Township of Windham.—33 acres, 30 acres improved. Soil sandy loam; well fenced; no orchard. Situate on Woodstock Road. Frame house and barn. Railway Station on the same lot. Price, \$1,200.

OXFORD.

13-50, Township of Dereham.—116 acres, about 100 improved. Beech, maple and elm. Clay loam. Well fenced. New frame house; log barn. \$50 an acre terms easy.

17-65, Township of South Norwich.—100 acres, clear. Beech, birch, maple, some pine, ash, cedar; fine orchard grafted fruit. Mixed soil. Good large house with cellar; barn, drive house and shed (good). Churches and schools within 2 miles. Price, \$3,000; terms easy.

23-122, Township of North Oxford.—25 acres, improved. Clay and gravelly loam; creek. Close cheese factory; well fenced. Two miles from the soil. Price, \$1,000.

24-123, Township of North Oxford.—20 acres, 20 improved. Gravelly clay loam; good orchard grafted fruit. Comfortable frame house and frame out-buildings; picket fence in front. Price, \$1,500; \$1,000 cash.

40-156, Township of Blenheim.—200 acres, 150 improved; hardwood; orchard. Clay loam. Frame house, barns, stables, &c. Railway station, church and schools near. Price, \$6,000.

PERTH.

18-110, Township of Mornington.—90 acres, 60 improved, balance timbered—beech, maple and oak; few fruit trees. Heavy clay loam. Mixed soil. Good frame house; barn. Churches and schools near. Price, \$3,200.

WATERLOO.

19-118, Township of Waterloo.—About 90 acres improved, balance hardwood, some cedar; 40 acres creek; loam. New frame house; frame barn; stables and cellar. Churches and schools close; mile from Berlin. Price, \$65 an acre; terms easy.

20-119, Township of Waterloo.—About 150 acres to 100 improved; beech and maple; spring 1/2 mile; good orchard. Frame house and two frame barns. Churches and schools within two miles. Railway station two miles; Berlin 5 miles; Galt 8 miles. Price, \$45 an acre; terms easy.

21-120, Township of Waterloo.—140 acres, about 100 improved, balance heavily timbered, mostly maple; improved, spring creek. A good water-power, about 1/2 foot head-fall; dam fit for grist-mill. 1 1/2 story house; also, log house and barn; good loam; churches and schools within two miles; railway station two miles; Berlin 5 miles; Galt 8 miles. Price, \$45 an acre; terms easy.

TIGHT BINDING



Dec, 1874

Biddulph.—100 acres, 70 acres  
timber, mostly maple and black  
oak. Good springs; well fenced  
18; log barn and stable, cellar,  
R. C., 3 miles. London, 1  
m; Granton, 2½ miles. Price  
easy to suit purchaser.

of London.—6 acres. Cont  
9 rooms. Fine spring. Good  
road. On a good road, within tw  
miles. Price, \$1,500; terms easy.

of London.—4½ acres, with  
on good road. Fine garden  
site; some fruit and shade trees  
frame house. Price, \$700, paid

of North Dorchester.—About 4  
d cultivation. Soil gravelly loam  
; a young orchard; never-failing  
Log house, 20x22; frame barn  
lar. Dorchester Station, 5 miles  
Price, \$2,000.

of Caradoc.—200 acres, 40 ac  
heavy timber, all hard wood. Se  
applied with water; small orchard  
miles from Strathroy. Price \$8,500

**WOLFOLK.**

Woodhouse.—208 acres, 168 ac  
heavily timbered, oak, chestnut an  
of water; never-falling spring  
d fruit. Large, comfortable fram  
; outbuildings, barns, &c., exte  
ard fence on the outside; inn  
loam. Four miles from Simco  
e, \$8,500; terms easy.

Walsingham.—200 acres, 24 elec  
e. Light loam. Well fence  
is within 1½ miles. Price, \$2,500

of Charlotteville.—90 acres, 76 ac  
orchard; spring creek; light loa  
opol near. Nine miles from Simco  
e, \$3,000.

of Charlotteville.—100 acres,  
oak, maple and pine. Mixed so  
n and cellar; orchard. Church  
1½ miles. Price, \$1,600.

of Walsingham.—200 acres; timb  
e, good land; light loam. Pri

o of Windham.—100 acres, all i  
loam; two good wells; small c  
Well finished log house; bar  
4x24. Stone-cellar. Churches  
oodstock and Lake Erie Railw  
Station on the next lot. The  
on the Canada, Southern and J  
part on time.

o of Windham.—50 acres, 20 ac  
—Beech and maple. Soil loa  
orchard. Good frame house; ba  
stone cellar. Close to church  
lot. Two miles to Windham  
e, \$2,100.

o of Windham.—35 acres  
oil sandy loam; well fenced; a  
on Woodstock Road. Fra  
Railway Station on the same

**OXFORD.**

o of Dereham.—116 acres, about  
a, maple and elm. Clay loam. W  
me house; log barn. \$20 an ac

o of South Norwich.—100 acres,  
birch, maple, some pine, ash  
rd grafted fruit. Mixed soil. Go  
cellar; barn, drive house and sh  
and schools within 2 miles. Pri

o of North Oxford.—25 acres,  
and gravelly loam; creek. Clos  
well fenced. Two miles from In

o of North Oxford.—20 acres  
velly clay loam; good orchard gra  
ble frame house and frame outli  
ce in front. Price, \$1,500; te

o of Blenheim.—200 acres, 160  
ood; orchard. Clay loam. F  
ables, &c. Railway station, chu  
r. Price, \$6,000.

**PERTH.**

o of Mornington.—90 acres, 58  
timbered—beech, maple and  
Heavy clay loam. Log house,  
frame barn. Churches and, &c.  
3,230.

**WATERLOO.**

o of Waterloo.—About 90 ac  
ance hard wood, some cedar; 1  
New frame house; frame barn;  
lar. Churches and schools close  
lin. Price, \$95 an acre; terms easy.

o of Waterloo.—About 120 ac  
ed; beech and maple; spring c  
orchard. Frame house and two  
ches and schools within two miles  
to miles; Berlin 5 miles; Galt 8  
miles; terms easy.

o of Waterloo.—140 acres, abo  
ance heavily timbered, mostly map  
creek. A good water-power, abo  
dam fit for grist-mill. 1½ story  
og house and barn; good loam; chu  
within two miles; railway station  
5 miles; Galt 8 miles. Price, \$



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VOL. X.

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