

SALE.

E. Aged 1 yr  
vis. Byron.

A few young  
ifers—good  
mostly red-  
ulars—

LEACOCK,  
by P. O., Ont

11 MONTHS  
Thos. Ful-

COLUMN.

Farm for Sale  
animal for Sale  
of the clearing  
for TWENTY-  
One cent and  
additional word  
artisans are  
None others  
above, will be

Nearly 2 years  
limited number of  
ly to G. Jarvis

E.

THE COUNTY  
1st Concession,  
205 acres. 170  
bered. There  
and two Frame  
richards of choice  
the young. A  
of the clearing,  
es, and is with-  
Station. G. W.  
WM. WELD,  
LL, on the pre-

E.

OT 6, CON. 16,  
ores cleared, 30  
London, 1 mile  
Granton Station.  
l watered, good  
m. Price \$5,000.

OR, GRANTON.



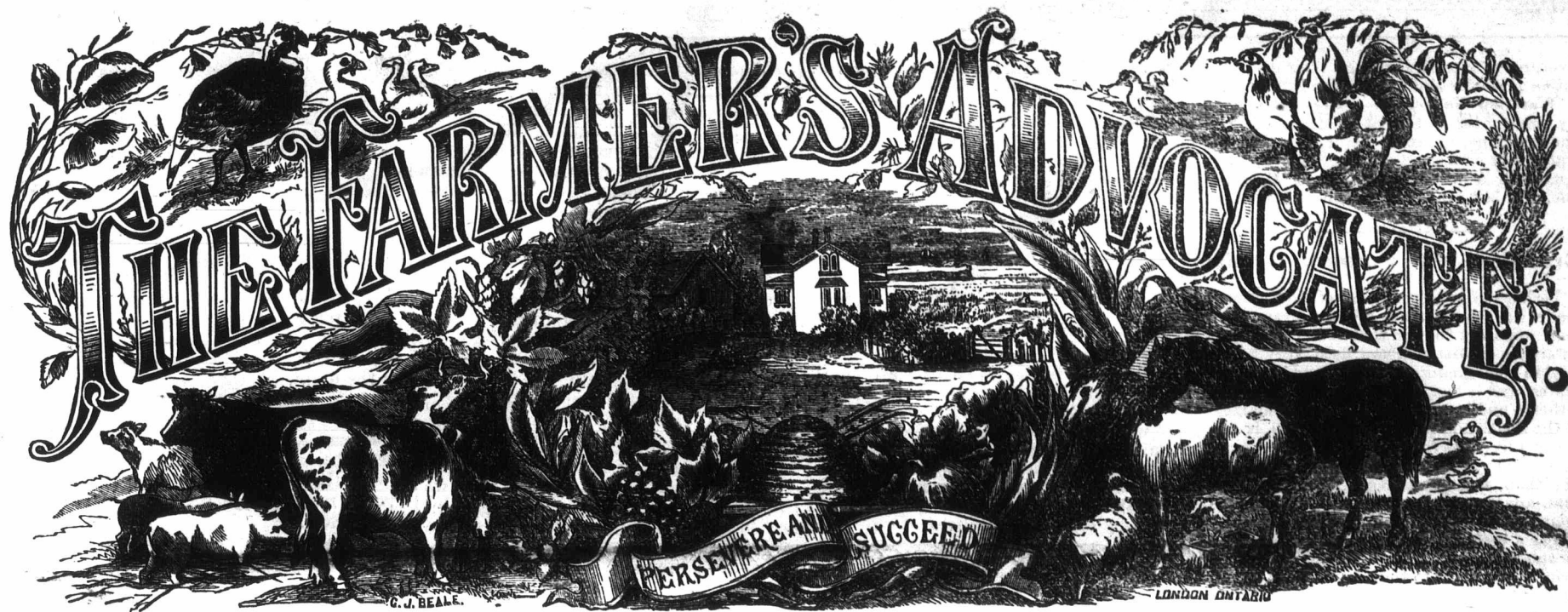
ONT—PRIZE  
and Melodeons.  
ers of "The Or-  
Patent Qualifying  
ad ever given to  
Provincial Exhi-  
First Prizes at  
to specify. Cau-  
the sole right of  
Qualifying Tubes  
re hereby caution  
em elsewhere, as  
t. We have copy-  
ette" for our in-  
nfant improvement.  
on this copyright  
Catalogues fur-  
& CO., GUELPH.  
ndas St., London.

FOOD,

Business and Terri-  
tory sold cheap for

HIVES AND

s  
h 100 stocks of bees  
My Queens are all  
illed promptly. Ad-  
WOOD,  
anneck P. O., Ont.



VOL. IX.

{ WILLIAM WELD,  
Editor & Proprietor. }

LONDON, ONT., JULY, 1874.

{ \$1 Per Annum, Postage Prepaid.  
Office—Dundas-St., Opp. City Hotel. }

NO. 7.

**Dominion Grange, Patrons of Husbandry.**

We take great pleasure in informing our subscribers that our Dominion Grange has been organized, and that we need no longer send any of our money to the United States or be in any way subject to them. Delegates from the different Granges throughout the Dominion met in London on the second day of June, and there, by a unanimous vote, decided upon the organization of our Dominion Grange, adopted a constitution and by-laws, and appointed officers.

Of this meeting we can only say that the speeches and work of the representatives present showed very plainly that we do not need to go to the lawyers for men of ability to represent us in Parliament, or to the merchants for thoroughly practical business men. There was no hesitation, no stuttering, no want of words to convey ideas.—Many of the speeches contained the true germs of eloquence, and all of them were practical and business like, and we felt that we had just cause for being proud of our brother farmers. For list of officers and other information see Patrons of Husbandry Department on another page.

**Fall or Winter Wheat.**

If you determine to try your wheat with fall wheat, let your determination be arrived at at once. And first—what preparation, if any, have you made for fall wheat? First there is the brown bare fallow. The spring crop in it has been a failure. A better field for your fall wheat you could not select out of the whole 250 acres. Turn in your oxen (the nimble-footed Devon is the best for the farm) to it, yoked to Gray's long plow; turn it up or under to the beam, deep as the top of the coulter hole. Turn it up with a clean, well-cut, furrow. Would you have a good crop of fall wheat, plow deep—deep—have a good, deep, well pulverized, seed bed. The fall wheat of 1873 gives no uncertain warning. The mellow, well-tilled soil gives good promise; the stiff clay, badly worked, is a failure. Let your stiff clay soil be made as rich and mellow as possible. Make it resemble the sandy loam. Have you no bare fallow; turn up that pea stubble, and at once. If there has been a mixed crop, peas and oats, so much the better; and if the hogs have had undisputed possession of it for some weeks, all well. This is not all. Spread 30 to 40 barrels of quick lime on your clover aftermath. Turn it down; the quick lime and the decaying clover aftermath and long tap-roots will soon give you a well-prepared hot bed, from which will arise every day a mist from the earth, that descending in gentle dew, shall water the whole face of it.

And now—what is the best method of sowing Fall Wheat? There are three modes, each in itself good.

First mode—Plow the land in ridges five feet six inches each in width, that is, let every three ridges be 16 feet and a half.—Sow broadcast, harrow well, and with the shovel cast every ounce of loose earth from

the furrow evenly over the ridge. At the headlands leave open drains to carry off any lying water. You cannot clean out the furrow too deep. This trenching, if properly done, deep as a man's knee, will take three men per day to the acre.

Second Mode—Sow the seed broadcast over an even surface, and plow it under with a six inch score. The last score—the narrow strip remaining last unplowed—must then receive a little seed additional, having been deprived by the action of plowman and team of its last pint of seed. This last score will, of course, clear up the furrow.

Third mode—The Drill. On this we give the following report from one of the largest farmers in Aberdeenshire:

**DRILL VS. BROADCAST SOWING.**

"The very first look I got of drill sowing, I was satisfied that it was the right principle of depositing the seed, and soon became so much prejudiced in its favor as to become an enthusiast, convinced by careful observation that it was in every respect the best system. In the very dry season of 1868, the difference, as I observed, between drill and broadcast sowing was very marked by the increased quantity of straw in favor of the former. That arose, no doubt, from the seed being more deeply deposited; the roots of the plants got a deeper hold of the moist soil, which enabled them better to withstand the drought.

"I resolved last year to put the two systems to the proof; and as it is most universally admitted that drill sowing is suitable for good land, while it is held to be a bad system for thin land, I selected for my experiment a piece of lately improved and very thin, rocky kind of soil, not worth more than 7s 6d per acre of rental (or about two dollars a year.) It had been three years in grass, was heavily manured with bones when laid out, and the grass did well for the quality of land. The experiment was conducted on fully eighty acres, which was ploughed into ridges of twenty yards in width, and the ridges were sown with the drill and broadcast alternately, so that each might get an equal chance of the quality of the land. The broadcast portion was sown at the rate of six bushels to the imperial acre, with barley five bushels, as owing to the softness of the grain the machine would scarcely discharge that quantity. The broadcast portion was sown carefully by the hand, and was perfectly done. I consider that drill sowing should be done across the furrows, as the seed is more evenly deposited; but in this case it had to be done along the furrows, as each alternate ridge was drilled, which I consider was a disadvantage. As harvest approached, the drilled portion began to ripen rather earlier and more evenly. The crop was good for the kind of land.—Each portion was very carefully cut separately on the same day, and the produce of each ridge kept distinct by itself. This was the more easily and perfectly accomplished by the scythe-men cutting right along the ridges. The whole was led on the same day in capital order and built by the same man,

the broadcast portion being all first taken from the field, and the drilled after, and each stacked quite separately. Every care was taken in the threshing, each quantity being taken separately into the barn, and when threshed put into bags, which were weighed without measurement to 4 bushels of 40 lbs. each. The drilled portion, by the bushel, weighed about half a pound more than the broadcast, and as to quantity, gave fully one bushel more per acre than the other.

"As a set off against such a result, many farmers object to drill sowing on account of its retarding operations, by taking away a pair of horses from the harrows, but I maintain, and can prove, that when the work is perfectly done it accelerates harrows. A great many farmers harrow the land very imperfectly, only giving it about one-half of what it should get. The land should be well harrowed before the drill is put over it, after which it is perfect as to mould or tilth. It must be quite evident to any unprejudiced practical observer that a pair of horses in harrows will not improve the mould of say twelve acres in a day nearly so much as they can do by the drill. Imperfect harrowing is a bad thing for encouraging the grub, and also the growth of weeds. If many farmers would give their land two or three double stirrings more than they do at seed time, it would save them a great amount of labor when cleaning the land for turnips. For many years I have given the land extra harrowing, and by it I believe I have in a great measure banished weeds from my farm. I not unfrequently see more weeds taken off three or four acres than I have upon one hundred. Another good weed destroyer is plenty of manure. I believe that Mr. Mechi's statement is substantially correct, 'that the land in this country is never half manured.' In conclusion, I may state that in our elevation and cold climate I don't approve of thin sowing; the difference should not be greater than one bushel less by the drill than by the broadcast. I have always found that in that proportion the drill sown was fully the thickest crop. Does not my improvement prove that broadcast sowing to a large extent in the first place wastes, and in the second, curtails the supply of food for the people?"

By the second and third methods the seed will be deposited at equal depths, and this in itself is no little advantage. There will be no upturning of the slender rootlets by the winter and spring freezing and thawing, and the concentrated earth along the side of each drill will form a bone to protect the tender plant in its seed bed.

Such is the labor attendant upon the sowing of Fall Wheat. Of Spring Wheat we say nothing.

Wheat has ever been and will ever be one of the staple productions of Canada. So varied is our climate and so fertile our soil that we can grow it of a superior quality. A cold winter and a hot summer are necessary in order that the berry mature well, with abundant farina. A crop of thirty bushels or even one tenth less, will pay the farmer

well. This, and double this, our country can produce. A crop one-half of thirty bushels will not pay. Give and it shall be given unto you. Give to your land good tillage and abundance of manure. —S.

**Orchard, Garden and Forest.**

**THE CAUSE OF THE DEATH OF FRUIT TREES.**

We have had several complaints of the dying out of fruit trees, and enquiries as to the cause. One cause is that the trees are not taken up from the nursery with proper care. The roots are mangled, broken and otherwise injured. The greatest care is necessary to keep the roots safe, so that even the smallest roots—the very rootlets are in good condition to commence at once, on being planted, to use the plant food in their new home.

Not only are young trees frequently injured in taking them up from the nursery, but they are liable also to be injured in the packing and transportation from the nursery. It is necessary that they be kept moist and so covered from the air that they are not in any measure dried up, but remain as fresh as they had been in the nursery—as fresh till planted. We have had valuable trees killed from both these causes, some from having the roots cut short, broken and otherwise injured, and some from being exposed to the drought.

But it is to the killing of fruit trees after being planted and having commenced to grow, that many refer. Some having received their trees in proper condition, and planted them in good, well-prepared soil, have had them killed. We believe that in almost every such instance the want of sufficient moisture in the soil has been the cause. While it is necessary that no water remain stagnant in the soil, it is as necessary that the soil be at all times sufficiently moist to nourish the trees, whose rootlets always take in their food in a state of solution. To the drought in the soil, and not to frost, has been attributed the death of so many young trees, fruit and evergreen. Trees wanting the vigor afforded them by the moisture of the soil and the sap, cannot withstand the frosts.

To preserve trees through the long and often changing winter weather, it is well that the soil wherein they grow be thoroughly moist in the fall, not merely such moisture as a Scotch mist would give, but wet down to and beneath the roots, and then before the winter sets in be well mulched. This mulching as a safeguard against extreme frost is as necessary as it is against the drought of summer. As a substitute for the ordinary mulching we have these last two years placed on the ground in which the trees were planted a sod (peat or muck), with the grass side turned under, and we have found no better covering. As to other mulching, we give a preference to the leaves of trees for strawberries and flowers, and we prefer the leaves of pines and other



evergreens to others, though their decomposition is slower and more difficult.

Watering the trees is always better done, by pouring the water not on the soil, but on the mulching, unless it be a sod, that the water may ooze slowly through the covering. And such a watering, if it be a thorough one, will last for a considerable time. —S.

### Growth of the Oatmeal Trade.

Perhaps in no department of the grocery trade has the increase of late years been more apparent than in that of oatmeal. As an article of diet it is now used very generally in the Eastern, Middle, and Western States, and is fast making inroads into the hitherto undisputed domain of Indian-meal in the South and South-west. This is certainly a fit cause for general congratulation, for no more healthy or nutritious food exists than a good oatmeal porridge. Its mild, aperient, and unequalled muscle-producing qualities render it particularly suitable as a breakfast diet for Americans. Its phosphorescent qualities act as a gentle and healthy stimulant to the brain, and on no other food can one endure so great or so prolonged mental labor as on oatmeal porridge.

Properly cooked, it is not only a most healthful and nutritious food, but it is decidedly palatable, as is fully attested by its wonderfully rapid adoption as a popular diet by the very fastidious palates of our American people. "The healsome parritch, chief o' Scotia's food," to which Burns refers in the *Cotter's Saturday Night*, can be had in the greatest perfection from Scotch oatmeal, for of Scotland we say it is indeed the national food. Ireland, too, produces good oatmeal. But our chief supplies are drawn from the neighboring Dominion of Canada, which for years has stood pre-eminent for the quality of the meal which she produces, vying with the mother country for the palm of excellence, and in at least one International Exhibition, carrying off the badge of victory from the "Land o' Cakes." Here, too, in the United States, we are manufacturing this article to some extent, and it will in course of time, no doubt, become an important industry, though the inferior quality of our oats militates materially against it. The analysis of the Imperial Scotch Oatmeal, made by the eminent chemists Liebig and Hassell, shows that while wheat and barley contain but fourteen, and corn but twelve and a quarter, oats contain within a very small fraction of twenty per cent. of the nutritious portean elements of life and muscle-giving qualities. As a food, the merits of which have stood the test of centuries, and which is calculated to promote the sanitary interests of the nation by laying the foundation for more hardy and vigorous constitutions for the coming generation, let us regard its general adoption as an article of diet as nothing short of a national good.—*American Grocer*.

Properly cooked "parritch" is doubtless the best of food; but properly cooked, the oatmeal must be good, for as a muscle-producing diet there is none other like it. It gives strength and vigor to the whole man. For some time it has been building us up. We knew it of old, but now we have learned to appreciate its excellencies. He that will make a hearty breakfast of a plate of oatmeal parritch, with a bowl of rich milk deserves not to break his fast.

And oatmeal gruel, well prepared with the necessary ingredients, taken just as you are ready to slip under the blanket at night will drive off before morning the most obstinate cold—well prepared as one can prepare it—but—this is telling.

An oatmeal bannock, not baked on the griddle, but standing up before the fire, or baked under the cinders on the hearth, is with a bowl of rich milk, no food to be despised.

And another, yet another way of preparing from oatmeal a dainty dish fit to set before a king, is to be told. An English soldier thus describes his first acquaintance with this "sour pudding." Over the fire hung the boiler with some gallons of a half-liquid substance. The fire burned bright and, the host, with a long stick, kept the liquid in constant motion. Still the liquid became less liquid, till by the virtue of the stick and the heat of the fire it, in a short time, became a sour pudding. If I eat one spoonful my host eat a dozen. This is flummery, or, as it is called in the black north, Sowins.

In another way also are oats used. They

are made take the place of barley or old rye. From the private still trickles that liquor that never saw the face of a gauger. But we must beware of the wrath of the prohibitionists. There is no food in intoxicating drink; however, if there be a word to be said in favor of that which is forbidden, that word must be for the home-brewed and the home-distilled.

And Gypsy, my own brown mare—well, if there be exercise good for man, it is a ride across the country on such a mare as Gypsy, well fed with the muscle-building oats. —S.

Will the Woodstock *Weekly Review* be honest enough to give us credit for original matter when clipped from our columns. We have to pay for our articles, and consider that when other journals take the benefit of them, they surely might do us the justice of mentioning that they were written for the *FARMER'S ADVOCATE*. We refer this time to the article on "Dairy Hints for June," written by Hon. X. A. Willard.

### Patent Rights.

Our Government officials will grant patents to any body for nearly anything, no matter how useless it may be, and often patents that are of value are infringed on. Still we approve of the patent system, as people that have devoted their time to any particular improvement should, if possible, be rewarded.

The worst feature about this patent right system is the great number of people that are travelling the country selling to green-horns something just about as useful as the following cut represents:



PATENT RIGHT FOR STOPPING A RUNAWAY HORSE.

The salesmen are about the smartest lot of people you can find. They spot a man and know his weak points; they have made due inquiries in the locality to be operated, for the one on whom they are to prey. When found he is approached gradually: two, three or four visits may be made at different intervals, before the subject is spoken of. The duped man's confidence is gained, then the bargain is soon closed, and the green-horn then finds he has something about as good as the above representation. But his signatures have been given to papers; they must be paid.

We advise every farmer that is a subscriber not to touch a patent right until he has consulted two or three business men that he has confidence in; never be in a hurry, expecting somebody else will take it before you. We have been pestered with too many of these useless swindlers, trying to sell us rights that are not worth the paper they are written on. The majority of these useless articles for which the rights are sold are not procurable; they cannot be purchased, simply because no manufacturer will make them on his own risk. They know they can not sell them.

There is nothing wrong in your purchasing a patent implement if you are satisfied it would be for your advantage.—Every patentee of agricultural implements should be compelled to have his implements procurable at some place, so that they might be tested before they are offered to the public in the form of township or county rights. Manufacturers are better able to judge of mechanical work and the value of implements than the farmers.

We have wasted so much time with patent right men that it is our intention to charge a fee of \$5 for examining any new patent, and then giving our opinion on the implement, and advise how to proceed with it. We have saved men from heavy losses and some have made or saved money from our information to them privately.

The majority of vendors of inferior patents take good care not to have them brought before the public in any paper.—No illustration is made of them; no machine can be procured at any place; some paltry muddle is shown, perhaps very cunningly and cautiously.

Many duped ones call to see us, or write to us when too late. There are many good inventions, and they are pretty sure to be spoken of in our paper, as we see and hear about many. Those we think useless we can only let pass unheeded. If we should condemn an article in such a manner as to injure an individual in making a sale, and it were shown in court, even if the implement was worthless, we should have to pay the costs, therefore we treat of them generally.

### Trip to England.

Our last issue informed you of our intended journey. The June No. was in process of mailing to you as we left, being on Tuesday, May 26th.

We took the G. T. R. for Montreal, and being unexpectedly detained two and a half hours at St. Mary's, to gain information we walked to Mr. S. H. Mitchell's, as

dollars. This animal was purchased to go to England. Two Duchess cows brought \$525 each.

Such prices as from five to forty thousand dollars for a cow or a bull are most astonishing. At the same time lots of these high priced animals would stand but a poor chance for a prize at a county exhibition. There are hundreds, perhaps thousands of cows or bulls that would take the prizes away from this particular class, if the plain dollar-sense judgment of the plain, practical farmers were asked to decide. To be a judge of a Duchess, you must be educated to have Duchess on the brain, or there is no chance for you to be admitted to a show ring where they are exhibited. Nearly every Short Horn man appears to us to have this fever; they all want them. There are but a very few of them in the world, and a few monied men want to get them, hence the great prices.

It is the opinion of many that they will pay at the present prices, and that these prices will be maintained for some time to come. The great prices that this family have brought, no doubt will be looked up to by purchasers for many, many years, and the infusion of this blood into other herds will be sought for. Thus the prices are not likely to rule low for some time to come.

Our judgment may not be correct; perhaps our enterprising views may be contracted, but we should be loth to expend money at the present prices the Duchesses are bringing.

The grain is all sown between London and Toronto. The land has been in excellent tith throughout the seeding season; the grain begins to show itself above ground. Although vegetation is more backward at this season of the year than usual, we think there is every promise of a good harvest along this line. The Clive and Winter wheat may have been rather more injured this past winter than usual, but the deficiency will in a great measure be made up by sowing other grain and corn, millet, &c., for a substitute.

The hay crop is less injured the farther we proceed east; the greatest damage done to the clover and fall wheat is to the west and south of London.

We met in the cars some farmers who have recently been to the Government Farm. Their opinions about it are anything but favorable.

### CROPS.

We passed from Toronto to Cornwall during the night. From this station to Montreal the land is saturated with water, and very poor chances for anything else, as the country is low, flat and badly drained. Scarcely any grain has been as yet sown in this part of the country.—They have had a continuation of wet weather, while we in the west have had a fine seed time. The grain must be sown at once, or there will be no use in sowing it. It must be put in when the ground is not in good order, therefore we expect the grain crop will not be as good in this part of the country as in the west.

Timothy is raised to a greater extent here than to the west; the wet and cool weather is considered beneficial for the timothy; a large crop is expected. The fruit prospect is as good as it can be at the time of writing.

### MONTREAL.

The inhabitants of this city have been greatly excited about the rise in value of land within the past three years; it has about doubled, that is, basing the estimate on actual sales and prices actually paid. Many poor people that owned a hovel are worth thousands; others that were worth a few thousands are now worth a hundred thousand. One man purchased sixteen thousand feet at \$1 per foot; this day it is worth \$4 per foot.

Rents have been just about doubled during the past three years.

We like to hear of farmers or their families having a good streak of luck.—

A farmer near Toronto, who left his land in the hands of his wife and children, they sold it a short time ago, and the proceeds of the sale were divided among these girls don't breakfast now.

This city is a good prospect for a good prospect in any city in the Dominion, and a good prospect in any city in the Dominion, and a good prospect in any city in the Dominion.

It is our impression that this city has that which exceeds the growth of any other city in the Dominion, and a good prospect in any city in the Dominion, and a good prospect in any city in the Dominion.

We give you a point of view where thousands hourly.



There are plenty seen here. The buildings erected on the rotten rookeries are fully satisfied lands in cities and our rural districts as they ought to prize spend the improvements, of their neighborhood withholding of tardy, indolent The only way to lands that are at higher rates. not improving their neighborhood withholding of tardy, indolent They should be holding these country.

### Agriculture.

A correspondent who does not think name, is very much marks concerning the Agricultural time feels elated stitution could count of the would appear that fill the College heads of depart well paid Govern balance of the

Now, we would times thirty lo who would be board and lodg dollars at the fact that there does not in the object to is the rich and poor, so much money for few.

How much of country to give education to ea Taking into con money invested that \$1000 each By the time we Canada at that the bill? The says:

"The Ontario Guelph, we are with a full com true the full o

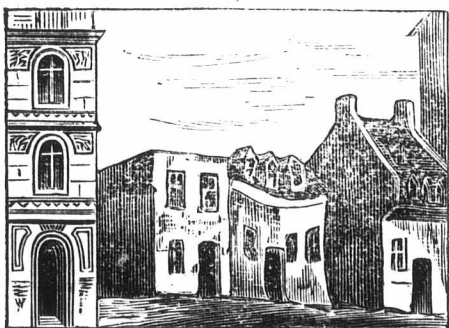


A farmer near this city died a few years ago; he left his two daughters his farm. They sold it a short time since for three hundred and fifty thousand dollars. Guess these girls don't milk many cows before breakfast now.

This city is all animation—the bustle of trade—this being the great city of the Dominion, and one which appears to have a good prospect of being nearly equal to any city in the States.

It is our impression that this city will make a steadier, safer and surer progress than any other in America. We cannot see what Chicago, New York, or any other city has that should cause their growth to exceed the growth of Montreal to such an extent, except lands are held at such enormous prices that it must hinder many from making improvements.

We give you the annexed sketch of one point of one of the principal streets, where thousands are passing almost hourly.



There are plenty of such sights to be seen here. There are immense palatial buildings erected, and some of the oldest rotten rookeries, not fit for pig sties. We are fully satisfied that the unoccupied lands in cities, around cities, and even in our rural districts are not taxed as high as they ought to be. The men of enterprise spend their money in making great improvements, which increase the value of their neighbor's property, and the withholding of lands by speculators of tardy, indolent persons should be checked. The only way to do it is to tax all vacant lands that are wanted for improvements at higher rates. These speculators are not improving the value of their neighborhood by withholding lands; the lands are being increased in value for them.—They should pay higher rates for withholding these lands, whether in city or country.

**Agricultural College.**

A correspondent of the *Canada Farmer*, who does not think it necessary to sign his name, is very much disturbed about our remarks concerning the hiring of students for the Agricultural College; and at the same time feels elated over the fact that the institution could be filled twice over on account of the number of applicants. It would appear that it takes 30 students to fill the College (the teachers, professors and heads of departments, foremen and rector, well paid Government officials, take up the balance of the room.)

Now, we would guarantee to find three times thirty loafers around this city alone who would be most happy to receive free board and lodgings and a present of fifty dollars at the end of the term, so that the fact that there were plenty of applicants does not in the least astonish us. What we object to is that every farmer in Canada, rich and poor, should be compelled to pay so much money for the benefit of the favored few.

How much do you suppose it costs the country to give this one year's smattering of education to each of these thirty students? Taking into consideration the interest on the money invested in buildings, we are satisfied that \$1000 each will not pay the expenses.—By the time we educate all the farmers of Canada at that rate, who will be able to foot the bill? The *Woodstock Review* (Reform) says:

"The Ontario School of Agriculture at Guelph, we are informed, is in operation, with a full complement of students. It is true the full complement is not very large,

being only thirty, and it almost seems as though the benefits likely to be derived from the college would scarcely be commensurate with its great cost and the expense which will be entailed yearly to keep it up. In the nature of things Agricultural Colleges cannot do a very great deal in improving the husbandry of the country. For instance, providing a year's training at the Ontario institution should prove sufficient and the full complement of thirty graduates, if we may use the term in this connection, were turned out annually, would the benefits to the agriculture of the province be appreciable in ten years, or twenty, or a half hundred? Let any one consider what a vast number of 'toilers of the farm' there are and must ever be in this vast country, and then think of thirty or even twice that number being turned out of the college yearly with a smattering of new ideas as regards culture of the soil! At that rate, if the benefits of the institution were confined to a solitary township, it would take an age or more to revolutionize or materially alter the mode of culture pursued. On the other side of the lines these institutions have been extensively assayed, but in no one instance have the results expected been achieved.—The best minds of the Republic pronounce them a failure, and Prof. McCosh, a man who is educated and admired in all educated circles, goes so far as to pronounce them little if at all better than a fraud, and an exceedingly expensive one at that. One great reason of the failure of these so-called colleges undoubtedly is that the class which ought to attend them seldom does. Class distinctions spring up, snobishness asserts itself more or less, the attendants are chiefly drawn from a source not profitable to the country, and as a result the farming community as a whole derives but precious little benefit."

And now, if the correspondent wishes some other authority upon the same subject, let him turn to the same number of the *Canada Farmer* that his own letter is in, and in another column he will find what the editor of that paper endorses by clipping from the *New York World* as follows:

"Again and again—and especially at this season of the year—do young men ask advice of agricultural editors as to the best way to learn farming. The answer in all cases is simple and brief: Go to work on the best farm and under the direction of the best farmer you can find who will accept your services. There is no other way—no schools nor system of study that will so quickly make a farmer of a young man."

**Wheat.**

Our old friend, Mr. William Walker, is annoyed because we said in our last number that in many cases where the Treadwell and Scott wheat did well, the Diehl wheat failed completely. We can only say that we have seen such cases. We know and have always said that where you get a good crop of Diehl wheat it is an extra good one. There is no medium about it; it is either extra good or extra bad. We have no doubt Mr. Walker and many of his neighbors have had excellent crops of Diehl wheat, but it is just as certain that nine out of every ten that have tried it, have had very poor success.

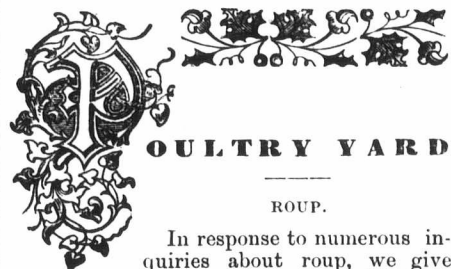
Concerning the Farrow wheat, we were a few days since conversing with an extensive miller from the county of Wellington. He said that although it did not command the highest market price, he would sow it himself if he was a farmer, as it cropped so well, and although millers did not yet know how to grind it to the best advantage, they will learn just as they did with the Fife wheat.

**Millet for Winter Feed.**

Have you sown your summer fallow with millet? If not, it may not yet be too late. Late in June, and even to the first of July, the anniversary of the great battle, your land, if well prepared, may be sown with millet—the white branching millet—25 to 30 lbs. per Imperial acre. Cut it as soon as the seed is in the milky state. This you must do if you are to save the fodder, as a late frost may kill it. This you will do if you desire to have the fodder green and succulent. It will make capital soiling for farm stock of any kind; and when well preserved it will make excellent hay.

**Monthly Cattle Fairs.**

- Harrison—Friday before the Guelph Fair.
- Bosworth—Saturday before Guelph.
- Drayton—Saturday before Guelph.
- Elora—The day before Guelph.
- Guelph—Monday before Elora Fair.
- Guelph—First Wednesday in each month.
- Clifford—Thursday before the Guelph Fair.
- Teviotdale—Friday before the Guelph Fair.
- New Hamburg—First Tuesday each month.
- Berlin—First Tuesday in each month.
- Elmira—Second Monday in each month.
- Waterloo—Second Tuesday in each month.
- Mount Forest—Third Wednesday in each month.
- Hanover—Monday before Durham.
- Durham—Tuesday before Mount Forest.
- Fergus—Tuesday following Mount Forest.
- Orangeville—Second Tuesday in January, March, May, July, September and November.
- Mefno Mills—Third Wednesday in January, April, July and October.
- Erin—First Monday in January, April, July and October.
- Masonville—First Tuesday in February, May, August and November.
- Brampton—First Tuesday in each month.
- Listowel—First Friday in each month.
- Hillsburg—Second Tuesday in January, March, May, July, September and November.
- Moorfield—Monday before Guelph.
- Hamilton—Crystal Palace Grounds, the day after Guelph.



**POULTRY YARD**

**ROUP.**

In response to numerous inquiries about roup, we give its cause, symptoms and cure in the hope that we shall thereby enable more of our friends to escape the ravages. The cause of roup is almost invariably wet or very cold, chilly weather, which produces a hard cold that if not attended to at once soon assumes a very serious form. This is indicated by a discharge from the nostrils and beak of very offensive mucus, accompanied by a fetid breath and a disinclination to eat. In the next stage the discharge of mucus becomes greater and covers the nostrils and beak; the eyes also become frequently affected, while patches of yellow mucus are seen adhering to the lining of the throat and the surface of the tongue. If the disease still remains unchecked, the symptoms remain very much the same, but increase in violence till death ensues. As soon as the discharge is perceived, get a solution of chlorinated soda known as Labarraque's Disinfecting Fluid; mix with water in the proportion of one to three, or if a mild case one to four. This solution should be applied with a feather or a small syringe to nostrils and throat, when the secretion will partly cease, and patches of mucus will be discharged from the throat. This may be applied about three times a day until the diseased bird recovers, not allowing him to run with the rest of the flock before the last ample dose of the fluid has been given. Sick fowls must always be removed from the flock as soon as the disease appears, for a whole flock may be contaminated by a single bird through the drinking vessel. First, don't let your fowls get rouped. Second, if they do, use all rational means for their relief. Rut fowls will rarely reach this last stage unless very much neglected. Roup is also becoming scarcer as breeders become wiser, and will soon, we believe, disappear from our yards entirely.—*Live Stock Journal*.

**VARIETY AND SPECIES IN POULTRY.**

The Muscovy Duck is one species; the Rouen belongs to another species, the Brahma fowl and the common fowl are varieties merely, of the same species. The progeny produced by a cross between species are not fertile, whereas the product of a cross between varieties is full capable of reproducing its kind. In some instances the hybrids formed by the union of two species, though not fertile when it is attempted to breed among themselves, are still capable of breeding with the pure parent species on either side.—*Poultry World*.

**CROP-BOUND.**

The most usual cause of this is having swallowed some object that is too large to pass into the stomach. This obstructs the passage, leaves the stomach empty, and so creates hunger in the fowl. The inclination to eat is followed, and the crop becomes fuller and harder. The only remedy is to open with a penknife or lancet, from the upper part. Remove the contents, wash it out, and then close the incision with a few stitches.—Keep the fowl on soft feed for a few days and it will soon recover.

**PIPS IN CHICKENS.**

The symptoms are a short, quick, spasmodic chirrup, repeated in short intervals. On examination a dark-colored, dry, horny scale will be found on the end of the tongue. This is not the disease, as many suppose, but the results of the disease. In some cases, if not checked, the beak will turn yellow at the base, and the plumage becomes ruffled; appetite fails, and the bird mopes around and finally dies. A little cayenne or black pepper mixed with the meal and administered three times a day will generally effect a cure.

**CANKERED THROAT OR DIPHTHERIA.**

Another new disease. Causes is not known. Symptoms are, mouth and throat filled up with a sort of white exudation or ulcer, very offensive in smell. It is contagious, and unless taken in its early stages, fatal.

The treatment giving the best results seems to be moving the ulcers with a quill or spoon-shaped piece of metal about the size of a quill, and then applying nitrate of silver or powdered borax to the flesh left bare by the removal, repeating the operation twice a day. I think it would be well to wash out the mouth with a strong solution of chloride of potassium before applying borax. Little chloride of potassium in the drink would also be beneficial.

Another remedy is, one-half ounce tincture of myrrh, one drachm powdered borax, one drachm chloride of potash. Dissolve the borax, and put it in three and a half ounces hot water; put it into a vial, and when cool add the myrrh. Apply plentifully with a feather.

**Correspondence.**

**ASHES FOR MANURE.**

SIR,—I notice a letter in the April *ADVOCATE* from P. B. Werden, stating that he could not find it any advantage to use ashes for manure. I will tell you my experience with them.

I sowed four bushels of McCarling wheat on corn ground; one of my neighbors sowed the same kind of wheat on similar ground. When the Hessian Fly came in, both our wheats began to wilt down. I immediately put ashes over my four bushels; he did nothing with his. In a week the difference could be easily seen, and the produce showed it still better. I had 88 bushels of splendid wheat from my 4 bushels sown, that is, 22 bushels to the bushel; my neighbor had about 8 bushels to the bushel.

I think this shows conclusively the benefit to be derived from ashing wheat. This was on sandy land. I have also proved their value on clay land and on black muck.

WILLIAM C. FINCH.

Byron, May 23rd, 1874.

Professor Buckham, of England, claims to have discovered one of the causes of typhoid fever. A family in his neighbourhood was attacked with a severe type of the fever. On a careful search of the premises, a spout in the family pump was found to be covered with a sort of gelatinous matter. Submitting this to microscopic investigation, it was found to be a fungoid growth, from which spores were constantly washed away by the flowing water. He followed up this discovery by a minute examination of the outlet of the sewer through which the drainage of the town flowed, and his scientific zeal was rewarded by finding fungoid growths of a similar nature to those in the pump spout. In the vicinity of this outlet the fever also prevailed. Having cases of the fever in his own family, he followed up his enquiry by a chemical analysis of the water drunk by the family, and found in it minute spores of the same fungus. His conclusion is a natural one, that the fever had its origin in the fungoid matter taken into the system, where it ferments as yeast in beer, and poisons the blood.



Small versus Large Milkers.

Written for the Farmer's Advocate.

BY PROF. L. B. ARNOLD, SECRETARY OF THE AMERICAN DAIRYMEN'S ASS'N.

Success in dairy husbandry depends chiefly on the skill and exactness with which the various operations connected with it are performed.

The price at which dairy products are generally sold is not, as a rule, much more than the actual cost of production.

There are many ways in dairy management by which steady losses creep in, as it were, by stealth, that lop off the farmer's income and keep him struggling with the world.

When I was collecting cows for the first dairy I set up, an aged and observing dairyman said to me: "look out for poor cows; there is a great deal of money made in this country by dairying, but it is all made from the good cows."

The difference between a good cow and a poor one is not generally appreciated. Oftener than otherwise the price at which cows are bought and sold is made to accord with the amount of milk they will give.

the poor cow costs double what it does from the good one, and is produced at a ruinous rate for the farmer.

But the loss sustained by a small yield of milk is not all occasioned by a bad selection of cows.

It is unfortunate enough to have poor cows get into the herd by bad selection; it makes a sad leak in the results of the season.

Very few dairymen give their cows as much as they need to eat, except for a short time in the season.

After a cow has been in milk three months or so, if she is allowed to shrink in her milk for any considerable length of time, she never comes up to the mess she would have given had the flow been continuous and unabated.

the rest of the season, and that beyond redemption. Full feeding afterward will improve the quality of her milk, but it will augment the quantity very little.

It is unfortunate enough to have poor cows get into the herd by bad selection; it makes a sad leak in the results of the season.

Vineland.—Grapes and Wine.

When the Northerners, the first discoverers of America, landed in the new country, they were so surprised and delighted with the grape-vines in the woods that they gave the country the name of Vineland.

But our native forests are not turned to account as they should be. We can hardly be said to know the value of our country yet in its fruits.

A dollar for one and a half pints of wine from the vineyards of Canada; this is the price we pay. We could save much of this.

Let us have pure Canadian wine, even made from the native grapes, and let us have, as in old England, the home brewed ale, the mellow October; and, we add, it would tend to the sobriety of our people.

It is estimated that more cattle have died in Kansas this spring than during the entire five years preceding.

Patrons of Husbandry.

Dominion Grange.

The Dominion Grange Patrons of Husbandry was organized in London, Ontario, on the 2nd day of June, A.D. 1874, by delegates from the different Granges in the Dominion.

Worthy Master—Bro. S. W. Hill, Ridgeville, Welland County.

Overseer—Bro. T. Leet, Danville, Quebec. Lecturer—Bro. A. Gifford, Meaford. Steward—Bro. W. Weld, London.

Chaplain—Bro. Wm. Cole, Sarnia. Treasurer—Bro. Adam Nichol, London. Secretary—Bro. T. W. Dyas, London.

The following Executive Committee were appointed:—J. F. Cass, L'Original; Stephen Wade, Union; Matthew Garner, Woodford; James Armstrong, Camlachie; Captain Burgess, London; H. Anderson, London.

The following Resolutions were adopted by the DOMINION GRANGE at its sitting, June 2nd and 3rd, 1874.

- 1. That a minimum initiation fee of Three Dollars per man, and Fifty Cents per woman, be charged for all members, whether Charter or others.
2. That all Masters of Granges shall be authorized to organize Subordinate Granges, or appoint any other officer of his Grange, for that purpose.
3. That it shall not be lawful to establish a Grange within a distance of five miles from an established Grange.

Extracts from the Constitution:—ARTICLE V.—MEMBERSHIP.

Any person engaged in agricultural pursuits, and having no interests conflicting with our purposes, of the age of sixteen years (female), and eighteen years (male), duly proposed, elected and complying with the rules and regulations of the Order, is entitled to membership and the benefit of the degrees taken.

ARTICLE VII.—DUES.

SECTION 1. The minimum of regular monthly dues shall be ten cents from each member, and each Grange may otherwise regulate its own dues.

SECTION 2. The Secretary of each Subordinate Grange shall report quarterly to the Secretary of the Dominion Grange the names of all persons initiated or passed to higher degrees.

SECTION 3. The Treasurer of each Subordinate Grange shall report quarterly, and pay to the Treasurer of the Dominion Grange the sum of Fifty Cents for each man and twenty-five cents for each woman initiated during that quarter; also, a quarterly due of six cents from each member.

Sec. 4. Grange shall of the Div for each m the quart

AR SECTION Granges re or any th minion Gr Master an Grange gi Sec. 2. subject, at minion or shall be m unnessar

SEC. 3. Order are Patrons to well provi

ARTICLE I SECTION issue direc

SEC. 2. received the receive a c ate Grange

SEC. 3. be made Grange, a for the ast fifteen dol

SEC. 4. only whos and whos organization

SEC. 5. ply for aut

Religio tolerated of the Or for membe

Extract

The St of the D brated as

At the Grange, t represent and an c Granges c ter shall b

1. Divi Masters a dinat Gr Delegates shall be wives who be honora not entitl

2. The shall be l of the D of the desir ing for th the same t the Mast

3. It s Secretary Committee respond dealers i arrangem and shall the Domi

4. It s of Divisi other doc of the D and to rep sion Gran Grange.

Council

Yester cultural a bon, in t

The S bring bef fact, as l grabbs, t place wit going to consulti though t to the at ment we for evr.

The fo London "Tha



ange. Patrons of Hus-

London, Ontario, 1874, by dele-

W. Hill, Ridge-

anville, Quebec.

Meaford. London.

Burgess, Hyde

e, Sarnia.

chool, London.

ys, London.

aler, Dunham

ia.

Meaford.

ster Armstrong,

Committee were

Original; Stephen

rner, Woodford;

SEC. 4. The Treasurer of each Subordinate

ARTICLE VIII—REQUIREMENTS.

SECTION 1. Reports from Subordinate

SEC. 2. All printed matter on whatever

SEC. 3. If any brothers or sisters of the

ARTICLE IX—CHARTERS AND DISPENSATIONS.

SECTION 1. All charters and dispensations

SEC. 2. Nine men and four women, having

SEC. 3. Applications for dispensations shall

SEC. 4. Charter members are those persons

SEC. 5. Five Subordinate Granges can

ARTICLE XII—RESTRICTIONS.

Religious or political questions will not

Extracts from By Laws:—

ARTICLE I.

The Second day of June, the birthday

ARTICLE II.

At the annual meeting of each Division

DIVISION GRANGES.

CONSTITUTION.

1. Division Granges shall be composed

2. The boundaries of Division Granges

3. It shall be the duty of the Master

4. It shall also be the duty of Secretaries

Council of Agricultural and Art's

Yesterday afternoon the Council of the

The Secretary stated that he desired

The following agreement, arrived at by

That in consideration of the County

Middlesex and the Agricultural Society of

Considerable discussion followed, the

It was moved by Mr. Burnet and

That the Secretary send to the

THE KESLO FARMERS' CLUB, ENGLAND.

The Best Varieties of Turnips.

At the monthly meeting, Mr. Purves,

Mr. G. S. Douglas, Riddelltonhill, said:

You may recollect that when I

For feeding and for breeding stock

1st—Why is it that sometimes the

2nd—Why does not a swarm of

3rd—How is it that the queen

4th—It takes 21 days to produce

5th—How is bees-wax produced?

6th—How large can a swarm

Mr. Douglas then went on to name

The Apiary.

BY A. C. ATTWOOD, APIARIAN EDITOR.

Queries.

Some bee-keepers profess to know

In order to start my aparian

1st—Why is it that sometimes

2nd—Why does not a swarm

3rd—How is it that the queen

4th—It takes 21 days to produce

5th—How is bees-wax produced?

6th—How large can a swarm

7th—How many eggs can a queen

8th—How many bees are there

9th—What was the most you

We shall be glad to insert any

SOME FACTS ABOUT BEES.

I was amused the other day

"Why, I thought they lived

I suppose there are many

The queen lives from three

The drone's life is very

A good swarm will consist

The drones hatch out in

After swarms have been

In the frame hive you can

Millions and millions of

Paris fairs have been

The Vermont farmers

CATTLE IN NEW BRUNSWICK.

PROFITABLE SHEEP.—Mr.

BUTTER AND CHEESE TRADE

Its value is greater than



## STOCK & DAIRY

COLOR FOR BUTTER.

The "Ogden Farmer" of the *Agriculturist* gives the following description of his process for giving butter the color that is most esteemed in the market.

"I have previously referred to the subject of coloring butter, and during the past five years have experimented with nearly every recipe that has come to my notice. I have now settled on a system which is so satisfactory—after nearly three winters' application of it in the coloring of over 3,000 lbs. of butter—that it is worth while to state it somewhat in detail. The question whether butter ought to be colored at all is one that may be left to the judgment of the maker. It is quite certain that butter of a good color sells for a better price than that which is as white as winter butter almost invariably is. I do not find that my customers object to artificial coloring, and I am sure they would criticize an uncolored article. No one objects to coloring with carrot juice, which is unreliable in the matter of taste, and grows more so as the spring approaches; but annatto is sometimes looked upon as a drug, and many hesitate to use it on this account. The annatto plant, which grows in the tropics; bears a prickly pod about the size of a horse-chestnut. In this are many seeds, of about the size and shape of the kernels of buckwheat, which are embedded in a reddish pulp. When the pod ripens the pulp dries and adheres to the seeds. The pulp removes from the seeds, is the annatto of commerce. The common means of preparation is by steeping in water and boiling to a paste and then drying; this is "basket annatto." Recently, Mr. G. de Cordova has developed a process for removing the pulp from the seeds by washing in cold water, separating the coloring matter from the liquid and drying it without the application of heat, and then pulverizing it, securing the coloring principle pure and of full strength. This is called "annattoine," and is the substance that we use, the form being not different from that in which it exists in the native pulp, which is used by the people of Brazil as a flavoring matter in cooking much as we use salt, which is as much an article of food and as little a 'drug' as is carrot juice. Annattoine is a natural vegetable product, artificially separated from its natural combination without being changed in character, and may be regarded as wholesome and even nutritious. It may be used in several ways. That which we have adopted (and which costs about 10 cents per 100 pounds, of butter) is according to the recipe of Messrs. White-man and Burrell, of Little Falls, N. Y., who are large dealers in the material. I first got the recipe from Willard's Dairy Husbandry, and afterwards in an improved form from themselves. It is as follows: 1. Dissolve one pound of the best potash and one half pound sal-soda in ten quarts of water, stirring occasionally, and allowing it to stand until well dissolved and until the impurities have all settled to the bottom of the vessel. Pour off all the clear liquor possible, let it settle again and pour off more, and repeat until all the sediment remains. 2. Dissolve one pound of annattoine in eight quarts of clear cold water and let it stand in a cool place from one to two days until perfectly dissolved, stirring occasionally and thoroughly. This mixture will ferment if too warm. 3. Mix the two liquids together and let the compost stand until the annattoine is perfectly united with the alkali and the liquid becomes clear, stirring occasionally. 4. Store in earthen jars, or if in glass keep in a dark place. 5. Immediately before churning shake the bottle, and put into the cream a large table-spoonful of the liquid for each gallon of cream, and stir it at once. More or less may be used, according to the depth of the color desired—more for butter to be sold fresh than for that which is to be salted down, as the tint becomes stronger with time."

### EARLY MATERNITY AND TREATMENT OF COWS.

A writer in the *New-York Herald* holds that early maternity in a heifer enlarges the capacity of the milk of the milk-secreting organs to the advantage of the future cow. This is acknowledged. But the assertion which follows, that "unless this is done, and the habit of feeding well, so as to establish

a large secretion, be continued to maturity, the chance for a good flow of milk is lost and can never be recovered," demands attention.

I have proof to the contrary in my own experience with cows and this must be the case with the best dairymen generally who make it a practice to keep their cows well. These all must know the good effects of keeping a milch cow in good (uniform good) condition—never over-feeding, or so as to produce fat to any great extent, but a full supply of good nutritious feed, to keep the milk organs taxed to their utmost, whether the cow was an early milker or not. I have purchased cows at six and seven years of age, that were fair milkers: which in a few years doubled the amount of their milk, under the effect of good treatment—better housing in winter was the best, and no crowding or no molestation was allowed. Perfect comfort and a satisfied condition were secured. Here the capacity of the milk-secreting glands was either enlarged, or it had not before been sufficiently taxed. Which is it? I think it is the latter. Let me not be misunderstood. Those same cows, thus improved in their milk, might be early lactation. If the young mother, have still been better brought to calf long before she has attained her growth, is neglected or abused, and this is continued to maturity, there must, from necessity, be a lack, and a rather serious one. The animal will be much smaller; there will be less constitutional vigor; and thus the habit of giving less milk formed. I remember cases of this kind; scrubby cows was the result. On the other hand, I have abundant evidence—and this is uniform—that a cow well treated from her birth up, pains being taken to get all the strength and growth, without excess of feed or fat, will be a better milker on account of early maternity. Size and strength will not suffer materially. Only see that there is good health and digestion, and a full supply of proper nutritious food. If the animal goes to pasture in the spring in good condition, grass, if abundant, will be sufficient as a summer feed. Otherwise, the animal being reduced when turned out to grass, there must be something additional, some concentrated food, to raise her up to the proper point. But even when a cow going to grass is in a high condition, a little grain fed may increase the flow or richness of the milk. Whether it be profitable, *per se*, to feed grain in summer, when there is an abundance of pasture, is another thing. But whether grass alone, or the aid required from something richer, be given, a full flow of milk and a high, strong, healthy condition of the animal without excess of feed or fat, should be rigidly insisted upon. With this treatment, maternity and the lactal drain will but be an incident in the life of the cow, not materially interfering with her constitutional vigor. The milk will be the earlier and more fully supplied; and the after effect in accordance.

### IRISH HEIFER BEEF.

A few words here as to Irish beef. That which comes from the dairy districts is of about the same quality as the same class of meat from similar regions in England and Scotland. But the finest beef in London, or on the face of the earth, is the Irish heifer beef, grown expressly for meat. Of very moderate proportions, small in bone, compact, delicate in handling, light in weight, solid and firm, fine in texture, sweet as a nut, and juicy as a pine. More than moderately rapid in maturity, weighing at thirty to thirty-six months, when ready for the shambles, from 10 to 12 cwt., or 1,120 to 1,344 lbs. These heifers, from weaning time forward, are fed upon grass, with occasionally a little linseed meal, as a hygiene. They are weaned at from three to four months; so soon as weaned, the cow is again set to breeding, and she, owing to the climate, is very prolific.

This heifer beef is grown exclusively on grass, and that the most delicious, juicy and succulent on the earth; a native grass, superior in every respect to our much-lauded blue or June grass of the Ohio valley. This

Irish beef never finds its way into the general market, but is a monopoly in the hands of two or three swell butchers, like Duval of Paris, and is supplied to the great clubs of Pall Mall, Piccadilly, etc. In the way of breed this Irish beef is the result of long years of careful in-and-in breeding, by intelligent, competent men, as wise in their day as Messrs. Booth, Bates, etc. The breed has no reputation out of Ireland, and it is very doubtful if it would succeed any where else. Some experiments made by crossing with Herefords and Devons proved a failure. The Emerald Isle is their home, and unlike its people, they do not thrive as "emigre."—*H. B. B., in Live Stock Journal.*

### MARKETING CATTLE.

There has one time or another been a great deal of both humane and common sense, and sound business principle violated in the treatment of cattle, from the time they leave the country to be sent to market, until they are disposed of. Sometimes they have been treated to an excessively large feed of corn, so as to heat them up and make them drink water excessively, thus giving the seller good weights when the animals are sold. Sometimes they have been well salted for the purpose of stimulating the drinking process. Sometimes cattle have arrived at our yards on Sunday, after a good long run on the cars, and have been ordered kept off from water on dry hay, and sometimes corn, until Monday morning, when they are expected to drink an amount of water that will weigh at least fifty or sixty pounds per head against the buyer. Quite a number of cattle, one time or another, that have been thus treated, have died in the yards, or before they reached the eastern market after being shipped from here.

All abuses of this kind need reformation, for the very good reason that it is both inhuman and impolitic to treat dumb animals in this way. Honesty is the best policy; every good cattle buyer knows at a glance just the condition that cattle are in for weighing, and he will always make his price accordingly—so that in nine cases out of ten, while the owner of cattle treated in the manner referred to may congratulate himself on having gained fifty to sixty pounds per head in the weight of his lot, the buyer has really taken the difference off in the price he has given, just as he ought to do in every case of the kind.

Cattle should always be fed regularly and fairly from the time they leave the country until they are slaughtered for consumption. Humane principles require this policy on the part of the owners, and it is requisite for keeping the meat of the animals in perfect health and in its normal, juicy condition for human food.—*Drovers' Journal.*

### TO SWEETEN BUTTER FIRKINS.

Our readers who are engaged in the manufacture of butter often experience considerable difficulty in keeping the firkins sweet. A failure to accomplish this very frequently entails upon the manufacturer a severe loss, and to them we present the following information concerning this matter, which will be found of considerable benefit:

Before packing butter in new firkins, put them out of doors in the vicinity of the well, fill them with water, and throw in a few handfuls of salt. Let them stand three or four days, and change the water once during that time. Butter firkins should be made of white oak, and this process effectually takes out the acid contained in that wood, and makes the firkin sweet. If the butter is well made and rightly packed, it will keep good all summer, even if the firkin be kept in store above ground. To cleanse old firkins in which butter has been packed and left exposed some time to the air, fill with sour milk and leave standing twenty-four hours; then wash clean and scald with brine. This makes them as good as new.—*Colonial Farmer.*

### HEMP SEED TO PREVENT ABORTION.

Mr. W. R. Duncan, a well known and reliable breeder of Shorthorns, of McLean Co., Ill., writes to the *National Live Stock Journal* in relation to the hemp-seed remedy, as follows:

Nothing has ever been used by the scientific men of the world so immediately in its effect, or so reliable. By the use of it I have not only broken up an established habit time and again, but have arrested its

progress and relieved the patient after our best scientific men had decided that it could not be done with any remedy.

I have done so after there was an apparent rupture of the membranes, and quite a discharge of the liquor amnii. The use of it as a remedy has been so successful that I have never made one failure in twenty years. I could, doubtless, astonish many persons by giving names and the particulars of cases, but that is unnecessary. Facts are quite sufficient, as I am not aiming at making a fortune out of the remedy. With such females as can make complaint in time, I only use the remedy at such times as may be necessary; but with such as cannot, I feed about one pint of the clean seed every week. In others I feed either all at once, or at times, as may be convenient, for one or two months after the aborting period, or until the time of delivery, keeping the patient as quiet as can be done with convenience.—With this remedy I have not only prevented the abortion, but have, in every instance, seen the subject of the effort, so to do, surrounded by a healthy, living offspring.

### CHEESE FACTORIES IN CANADA.

Cheese factories in Canada are said to be on the increase. There is no reason why many districts in the Provinces should not compete successfully with the dairy districts of the United States. There is no danger of glutting the market. The *Western Rural* has always taken the ground, and does yet, that increased production always produces increased consumption, if the commodity only be one of general value to the community.

Cheese ought to be a common article of food, of universal use, fully as much as butter, and will be, when the value of cheese as food comes to be properly appreciated. Therefore, we say to our Canadian neighbours, Go ahead; produce all the first-class cheese and butter you can, and help to drive out of the market some of the inferior produce that vitiates the taste when it does not produce disgust.—*Western Rural.*

### MAKING SHEEP PROFITABLE.

All flock masters have in view the object of making the flock pay, but each goes about it in an entirely different way. One cares well for the flock, and makes them as comfortable as may be at all times; another lets them take care of themselves. These last are usually looking for some better breeds, and imagine their sheep are "run out," or they have had them too long. I have a great deal of sympathy for a flock of sheep in this situation. They are placed very much as the Israelites of old were when commanded to make brick without straw; much is expected from them and very little done for them.

The probabilities are that one-half of the sheep kept in this country are cared for in this slipshod manner. Their owners consider them poor property, and neglect them in every possible way, only waiting for a chance to sell, which they do not get, as their sheep are not in a condition to attract buyers. When the cold fall rains and snows come, the owners know them to be severe storms, but imagine the sheep can stand it. The consequence is, that when winter sets in the sheep are low in flesh; they are not thought to be doing well, but the owners expect to have some early lambs to sell at a good price, to make up the loss for all former bad treatment and neglect. When the early lambs appear, many ewes have twins; none have nourishment enough for one lamb, much less two; many die from want of shelter. By the time grass comes, the lambs are stunted, and the ewes are poor beyond description; on many the wool is entirely off the belly and neck. Shearing time arrives; the average is from two and one-half to three pounds of inferior wool, the lambs are not fit for the butcher, and the profits from the early lambs vanish.—These farmers naturally conclude that the sheep business is unprofitable; they think dairying would pay better. This is the way to make the flock not pay.

The other class of flock masters keep as many sheep (or a few less) as they have good feed for in summer, and comfortable accommodations in winter. If the aim is to breed pure bred stock, they select the best specimens of the breed to be found, whether long or fine wool, weeding out all such as do not come up to the standard of what may be called excellent. If, on the other hand, it is thought best to breed a practical sheep, one for wool and mutton, and lambs for the butcher, they select from the best natives in the country, ewes of good age, say from two to three years; avoiding all those disposed to be bare of wool about the belly, face or tail; then crossing them with a pure bred long woolled ram, even if he costs from \$35 to \$50. I know of nothing better than a Cotswold, as the lambs will have almost twice the amount of wool that their dams had, and carcasses in proportion, and the second cross in the same direction will produce stock that, to the



patient after our decided that it could

re was an apparent and quite a dis- The use of it successful that I re in twenty years. h many persons by ticulars of cases, Facts are quite iming at making a y. With such fe- int in time, I only mes as may be ne- as cannot, I feed n seed every week, all at once, or at nt, for one or two y period, or until ing the patient as ith convenience.— not only prevented n every instance, ort, so to do, sur- ing offspring.

IN CANADA.

ada are said to be on o reason why many should not compete y districts of the o danger of glutting e Rural has always s yet, that increased s increased consump- ly be one of general

mon article of food. uch as butter, and cheese as food comes . Therefore, we say ars, Go ahead; pro- ese and butter you of the market some at vitiates the taste e disgust.—Western

PROFITABLE.

n view the object of each goes about it in One cares well for m as comfortable as yher lets them take ese last are usually breeds, and imagine t," or they have had great deal of sym- this situation. They the Israelites of old make brick without from them and very

that one-half of the are cared for in this owners consider them et them in every pos- for a chance to be ners. When the cold e, the owners know s, but imagine the consequence is, that eep are low in flesh; e doing well, but the e early lambs to sell e up the loss for all d neglect. When the y ewes have twins; ough for one lamb, from want of shelter, the lambs are stunt- r beyond description; ively off the belly and r three pounds of in- not fit for the butcher, early lambs vanish.— y conclude that the rofitable; they think r. This is the way to

masters keep as many ey have good feed for table accommodations is to breed pure bred the best specimens of the ther long or fine wool, do not come up to the called excellent. If, th ought best to breed r wool and mutton, and ey select from the best ewes of good age, say s; avoiding all those wool about the belly, ng them with a pure ven if he costs from \$35 have almost twice the eir dams had, and car- the second cross in the uce stock that, to the

casual observer, is not inferior to the pure bred; but not as certain to breed from, as regards their imparting their good qualities to their descendants.

In order to make sheep pay, all that is necessary, beyond a doubt, is to care well for them, to keep them from the cold rains and, when the weather is cold, to keep them dry and sheltered. From the nature of their clothing, they wet easily and dry slowly. It is aimed to avoid loss of flesh if possible, since by so doing, if there are any breeding ewes to be disposed of for any cause, they are ready for the butcher as soon as shorn, and in all probability will bring more than if kept until the fall.—Cor. Country Gentleman.

A MYSTERIOUS DISEASE.

A mysterious disease among cattle has lately broken out in the neighborhood of St. German's, Cornwall, England. In a few days seventeen valuable animals, chiefly cows, and most of them Short-horns, had died, and several others narrowly escaped. Horses or pigs are not exempt from it. Professor Axe called the disease splenic apoplexy; the spleen was invariably enlarged, and the blood was in a fearful state, full of either animalcules or fungi. But how the disease was produced, or how it was to be cured, scientific men were at a loss to say. It is thought that the disease is not infectious.

The Horse.

BREEDING HORSES FOR FARM WORK.

A writer in the London Mark Lane Express in discussing the points to be considered in breaking horses for farm labor, says:

"The head should be comely, but not so small as that of the running horse, as it enables the animal to throw more weight into the collar. He should be broad and flat in the forehead, have neat, well set-on ears, prominent placed eyes, thin eye-lids, large nostrils, neat neck, and deep towards the chest; not very high in the withers, with upright shoulders, forearm broad, flat bone below the knee, rather short pasterns, good round feet—not too flat or too upright, plenty of hoof, clean leg, straight back, with plenty of loins, and ribs well arched. He should be long on the back rib and long in the quarter; the haunch should be strong, the hip well down, the hock-joint broad; and for a breeder, no animal should be used that is not free from curb, bog or bone spavin, splint or side bones. Horses with well developed muscle and a good constitution are easy to keep, and can endure a great deal of fatigue.

ADVANCE IN HORSES.

A contemporary says: "We recollect very well that when railroads were first being built in the interior of New England, farmers thought that horse racing would no longer be profitable, and many breeders of our acquaintance acted on this belief, and either raised no colts at all, or much less than they had formerly done. Everybody knows that these fears were not realized. Horses have been in greater demand, and prices have been much higher since the completion of railroads than before. The same appears to have been the case in England, as it is stated that the London General Omnibus Company has purchased 22,026 horses in the last twelve years. From 1861 to 1870 the average price was \$120 each. In 1871 the average price was \$140, and in 1872 nearly \$165. Until 1870 the needed supplies were easily obtained in England and Scotland. For eighteen months past nearly all the horses bought have been purchased in France.

BRAVO, CANADA.

It appears that the Canadians find the breeding of fine draught horses a paying business, and the remunerative prices obtained from United States purchasers for such horses, as the Rural New Yorker portrayed some weeks since, has encouraged importation of more stallions. A few years since I found that sheep were bought in Canada in the summer, brought to the State of New York, and during the winter slaughtered and sent to hotels and private families in the city, paying expenses of freight from the Dominion, import duty, and for the food and care after; for the mutton obtained from these Canada sheep was superior to the general kind obtained from New York butchers. Now this importation of horses and sheep from a climate entailing more expense in wintering, in addition to the import duty and freight, shows that there is something very extraordinary in there being an absence of such stock in the possession of United States farmers, for as it pays Canadians to breed, raise and send to New York or sell to go to that city, how is it those farmers who are continually crying

"farming don't pay," do not breed draught horses and raise mutton sheep, saving 20 per cent. import and railway carriage all the way from Canada?—Belleville Intelligencer.

REMEDY FOR STOPPAGE OF URINE IN HORSES.

In a bag one foot square, put enough fine salt to form a thin layer over the side. Wet it with alcohol, or if not at hand, use warm water. Place it over the kidneys, then bring out a blanket in very hot water and place it over the bag, covering these with several thicknesses of dry blankets to retain the steam. Over all, place the usual horse blanket. If relief is not obtainable in fifteen or twenty minutes, repeat the operation. Leave the outside blanket on after the others have been removed, till the horse is perfectly dry.—Massachusetts Ploughman.

AGRICULTURAL NOTES.

ORIGINAL AND SELECTED—S.

From the proceedings of an Agricultural Club in England, we give in another column an interesting article on clover, and in particular on Sanfoin or French clover. We have had some knowledge of this very valuable species of trifolium, as of all the varieties of clover, and would wish to know from some of our correspondents what has been their experience in its cultivation. As the soil and climate of Canada have proved to be so suitable to the different varieties of clover, we see no reason why the cultivation of the Sanfoin would not be as successful as the others. Its long tap roots would enable it to bear our winters. It would be a valuable addition to our forage plants.

POTATOES AND THE POTATO BEETLE.

Potatoes give good promise of being a remunerative crop, though the potato beetle is doing some mischief to the vines. In the beginning of the season, when they are as yet comparatively few in number, we pick them off. Afterwards, when their numbers have increased, we give them poison. We sprinkle the vines lightly with Vermatoxa, an unfailing bug destroyer, or with Paris Green mixed with plaster of Paris. It is claimed for the former that the handling of it is attended with less danger, and that it is easier of application, being already prepared. Either of them is sure death to the bug.—Some mix the Paris green with water, and with the poisoned liquid sprinkle the vines.

THE DANGERS OF PARIS GREEN.

The following timely precautionary instructions are given in the Paint and Oil Journal: As the handling and using of dry Paris green, especially by persons unaccustomed to its use, is attended with considerable risk, and often followed by serious consequences, we make the following suggestions, founded on our experience as manufacturers:—All packages whether large or small, should be plainly marked poison.

There is great danger in the mixing of this green for potato bug and cotton worm poison, owing to the fine dust which arises in the process, which is inhaled and also rapidly absorbed by the pores of the skin, especially if the person using it should be in a state of perspiration. To guard against this, the hands and face (particularly nostrils) should be protected as much as possible, and should be carefully washed after working in it, or in any of the preparations of which it is an ingredient. As it penetrates and poisons wood, gets into the seams and crevices of articles made of metal, and even into earthenware that is at all porous, all household utensils, or anything in barn or stable which cattle or horses could have access to, in which the article may have been mixed, or from which it has been used should be carefully set aside, and never again used for any other purpose.

Malignant sores are not unfrequently caused by scratching the skin when itching or irritated from handling the green. It should be constantly borne in mind that it is a more dangerous and deadly poison than arsenic, and farmers, planters and others, when purchasing should be duly cautioned to exercise the utmost care in using it.

As a remedy for the poison, the free use of milk as a beverage is recommended, but we have found hydrate per-oxide of iron (a simple, harmless remedy) the best antidote. Sores caused by the green should be well covered with it, as with an ordinary salve, and a teaspoonful in a wine glass of water should be taken twice a day internally, while working with the green. This remedy can be obtained from any druggist or chemist.

The consumption of Paris green has largely increased within a few years, and the article is now applied to such a variety of purposes that carelessness in its use or ignorance on the part of those who use it, cannot fail to produce the most deplorable results.

CROPS.

The genial and copious rains of the last few days have acted like magic in accelerating vegetation. The fall wheat, that had such an unpromising appearance earlier in the spring, has spread out and gained rapidly; the meadows have made great progress, and bid fair to be a good average crop. Spring grain is somewhat backward, but the recent weather has forced the growth so rapidly that the prospects were never better. The pastures are excellent, and dairy produce will soon be plentiful. The early potatoes are up and looking well, but the bug has already commenced its ravages, and should be put down by timely application of Paris green. A machine, however, has been invented, consisting of fans, worked by an Archimedelean screw; is wheeled up and down close to the rows or hills, and the fan knock them off into a box attached to the machine. It works well when the vines have attained a considerable size.

SHEEP SHEARING.

is about done, and the crop of wool far in excess of last year; butchers' stock, however, both in sheep and lambs, is scarce.

FAT CATTLE.

are in demand; the stall-fed ones are bought up for the American market, or for home consumption by local buyers, and the grass-fed cattle have not laid on enough flesh yet to make them fit to slaughter.

FRUIT.

is in abundance. The cherries are loaded down. Apple trees never had a better appearance; plums, unless something unusual happens, promise an extraordinary yield.

DAIRIES.

are in full operation, and a large number of new ones have started this year. The high price paid last year has stimulated enterprise in this important branch of Canadian industry.

Every person should understand how to treat a flesh wound, because one is liable to be placed in circumstances, away from surgical aid, where he may save his own life, the life of a friend or of a beast, simply by the exercise of a little common sense. In the first place, close the lips of the wound with the hand, and hold them firmly together to check the flow of blood until several stitches can be taken and the bandage applied. Then bathe the wound for a long time in cold water. Should it be painful, a correspondent says, take a handful of burning coals and sprinkle upon them common brown sugar, and hold the wounded part in the smoke. In a few minutes the pain will be allayed, and recovery proceeds rapidly. In my case, a rusty nail had made a bad wound in my foot. The pain and nervous irritation was severe. This was all removed by holding it in the smoke for fifteen minutes, and I was able to read with comfort. We have recommended it to others with like results. Last week one of my men had a finger-nail torn out by a pair of ice tongs. It became very painful, as was to have been expected. Held in sugar smoke for twenty minutes the pain ceased and promised speedy recovery.

In some of the vineyards of Switzerland it is a common practice to light large fires with the object of shielding the young shoots of the vines from the effects of the sun's rays in the early morning in frosty weather, by means of clouds of smoke. During the recent frosts another and equally effective method has been adopted—that is, by covering the shoots at sunrise with paper rolled in the form of a sugar loaf. Two men can protect two thousand plants in two hours.

PARIS GREEN AND CANKER WORMS.

It has been discovered that the canker worm, which has been spreading so rapidly throughout the Northwest for the last few years, destroying the foliage of apple-trees and making the orchards look as though fire had swept through them, can be exterminated, and that, too, with very little labor.

The female canker worm rises out of the ground in the spring, as soon as the frost is out, and crawls up the trunk of the tree (as she is wingless) and deposits her eggs under old bark or in rough places. They hatch in May or the fore part of June into small-looking caterpillars or so-called measuring worms, which soon spread over the trees, destroying the foliage. Many plans have been tried to prevent the worm from crawling up the tree, and with some success. But to "wipe them out" completely, so that there shall not be one of them left to tell the tale, is by the use of Paris green in water, applied with a large syringe—a tablespoonful of Paris green to a pint of water.

When the worms are all hatched as near as can be judged, give the trees a good wet-

ting down, and if afterward it is discovered that they were not all killed, put on more, but usually one wetting will answer.

I know orchards that in 1872 were covered with this worm, the foliage and fruit crop completely destroyed, that were treated as above last year with perfect success—the worms killed and the orchards produced fine crops of apples.

This liquid will not only destroy the canker worm, but the myriads of insects that are too small to be seen by the naked eye, that are preying upon the foliage of trees.—One party says that, after using it last year in his orchard, the foliage made such a luxuriant growth and was so dark a green that it was almost black. It can be used just as safely and with the same success in the flower garden, destroying the insects that infest the shrubbery, as in the orchard.

The canker worm has already made its appearance in some sections of the country and, therefore, must be looked after at once.—The above is a very simple remedy and very easily applied.

I saw parties in Southern Wisconsin two or three days since that told me they proposed to make up a barrel of the liquid, put it on a platform built on the top of a lumber wagon box, drive on the windward side of the trees, and shower them by means of a garden syringe.

I hope that this may meet the eye of tens of thousands of orchardists, and that they will act upon its suggestions at once.—Cor. Chicago Journal.

The female of the canker worm is wingless. They emerge from the ground in early spring, usually during a space of three or four weeks. They often, however, hatch and come forth in the fall and early winter, if the season be favorable. The females are obliged to reach the branches to lay their eggs by crawling up the trunks. It is certainly easier to encase the trunks of the trees with some one of the various devices to prevent their ascending, and thus prevent them laying their eggs, rather than wait till they are hatched and then shower the trees with a solution of Paris green. That poison is well known to be dangerous if applied to plants which bear their fruit among the foliage, and from the deep cavity at the stem of apples, there might naturally collect considerable quantities of it. Besides the plan of showering the trees with this liquid poison would be far more costly than encasing the trunks with tarred bandages, or receptacles filled with some viscous fluid.

It would not be pleasant, when buying an apple at a fruit stand, to imagine that it had been raised under this poisonous bath. We do not imagine that fruit eaters need be afraid just yet. Practical fruit raisers will not soon abandon the comparatively easy old plan for the very costly one given by the correspondent of our city contemporary.—Paris green is a good remedy for Colorado potato beetles, but we protest against advising its indiscriminate use for fruit trees, garden vegetables and flowers. It is too deadly to be played with.

VALUE OF SOOT.

This substance contains ammonia, carbon and a certain oil, and is, therefore, applicable to corn, wheat, etc. Some writers have asserted that, if the seed of Indian corn be mixed with this substance and ashes, it is not so liable to be affected with smut. But it seems more probable that the growth of the fungus, or rather its development, depends on a lack of vitality in the plant from some cause, and, consequently, there is afforded a resting place for the spores in the same way as other fungi are produced on decaying trees and logs. If this is the case, the soot can only act like other manures, in stimulating the growth and vitality of the corn, thus giving it a greater power of resistance against the intrusion of the puccinea.

In order to make a successful application of the mineral manures, the agriculturist must have an approximate idea of the natural composition of his soil, as well as a knowledge of the particular elements necessary to and exhausted by each kind of crop; and the want of such knowledge has been the cause of the numerous failures in attempting to make a profitable application of these. On the other hand, in applying barnyard manure and its various composts, he cannot fail to supply the materials necessary; for such manures possess all the elements which assist in the formation of the root, leaves, stem and fruit.—N. Y. Times.



English Scenes.

To those of our readers who hail from Merry England, the views of the Mill on the Stream, the English Cottage, and the Field Mice, will bring back the old times to their mind, and they will, in fancy, wander among the scenes of their childhood, as fond recollection presents them to view." We are

now enjoying the pleasure of re-visiting our old home, and again pressing the earth of dear Old England, and cannot refrain from sending those views, which are so characteristic of the country.

You can, all of you probably, remember just such a pleasant, steady stream as that depicted in "The Mill on the Stream." The cows are lazily standing in the cool water, under the shadow of the trees. One of the mill hands is poling the old boat up the shallow creek, and giving his friend a ride.

The cottage surrounded with shrubbery, the diamond-shaped panes in the window, the child with her little waggon—all are thoroughly English, and are no doubt recognized by many of you as very like old friends.

The Field Mice, perhaps, you will call old enemies, but even they, for association's sake, you will not quarrel with.

We hope, upon our return, to give many views of English life and scenery, accompanied with such information as we may deem of value. Ours is not merely a trip for pleasure, but of observation and examination.

Healing Power of Glue.

Many do not know that glue, as a healing remedy, is invaluable. For the last twelve or fourteen years, says a mechanic, I have been employed in a shop where there are over three hundred men at work; and as is the case in all shops of this kind, hardly a day passes but one or more of us cut or bruise our limbs. At first there were but few who found their way to my department to have their wounds bound up; but after a while it became generally known that a rag glued on a flesh wound was not only a speedy curative, but a formidable protection against further injury. I was obliged to keep a full supply of rags on hand to be ready for any emergency. I will here cite one among many of the cases cured with glue. A man was running a boring machine, with an inch and a quarter augur attached; by some means the sleeve of his shirt caught in the augur, bringing his wrist in contact with the bit, tearing the flesh among the muscles in a frightful manner. He was conducted to my apartment (the pattern shop) and I washed the wound in warm water, and glued around it a cloth which, when dry, shrunk into a rounded shape, holding the wound tight and firm. Once or twice a week, for three or four weeks, I dressed the wound afresh, until it was well. The man never lost an hour's time in consequence. The truth of this statement hundreds can testify to, I use, of course, the best quality of glue.

EXPORTATION OF CANADIAN FRESH MEAT.

A company has lately been formed in Britain with a capital of £200,000 in 20,000 shares of £10 each, to export fresh Canadian beef to the English markets, and prepare various tinned meats and a pure alimentary fat named "taurine," at an establishment situated either near Richmond or Sherbrooke, P. Q. Captain Smith, of the S.S. "Scandinavian," who is a director of the Company, yesterday gave a number of representatives of the press an opportunity of tasting and inspecting a var-

ety of present meats, put up by Mr. Johnstone, Edinburgh, Scotland. The Company have purchased this gentleman's appliances and processes, and have engaged him to act as manager of their works here, when they expect to turn out preserved meats at one-half what they cost in England, and of equal flavor and quality. French beef, it is maintained, can be purchased

CORN CROP OF THE UNITED STATES. The Live Stock Journal gives the value of this crop as follows:

"The crop of first interest to 45,000,000 of people in the United States is corn. It does more to feed them than any other crop. It forms the chief bread food for 15,000,000, and produces largely the flesh food for the

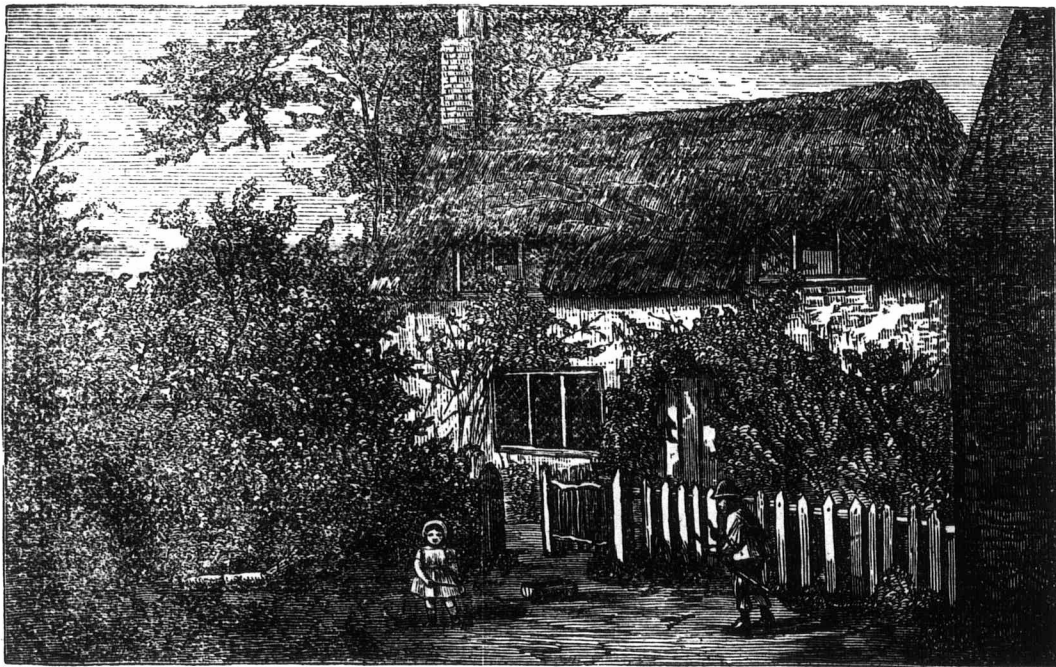
adapted to nearly every State in the Union, the range of its cultivation extending beyond any of our so-called grains or grasses, and in many localities where it is not profitable to raise it for grain, it furnishes the best means to make up for a short crop of grass for fodder."

HORTICULTURAL NOTES.

Washing Lice off Trees.—The present time is just about the season when the bark louse can be most effectively attacked by washing the bark of trees. The N. Y. Times says, in referring to the use of white wash for this purpose: "One word as to the washing of trees. We frequently see apple and other trees at this season of the year whitewashed. Now whitewash is very good for the kitchen walls. It makes them clean and sweet, but it was never intended for a living surface. It stops the pores of the bark, through which the tree breathes in part. Washing is good for both trees and men, but not whitewashing—except at Washington. The wash we have used for years is a mixture of soft soap and water, one-third soap and two-thirds water for young trees, and a greater ratio of soap as the tree grows older and the bark thicker. This will take off the bark louse, open the pores of the bark, and almost rejuvenate an old tree. If soft soap cannot be had, potash is a good substitute—a pound to a gallon of water. Refuse mackerel brine will also effectually destroy bark lice and other insects, the oil and the salt both combining in producing the result. The washing should be attended to in the latter part of May, when the bark louse hatches its young, for each of the little scales, which seem so lifeless on the bark of an apple tree, produces from thirty to forty young ones at this season and propagates again about the first of August, when we often see the little scales fastened on the fruit. They look very innocent, but a few thousand of them on a tree suck out its life-blood. Soft-soap can be put to no better purpose than destroying these thieves, and it also softens the rough bark so that it scales off, leaving the surface of the tree smooth and healthy."

SULPHATE OF IRON OR COPPERAS.

A Correspondent of the Chatauqua Farmer says; "I purchased five pounds sulphate of iron (Copperas); took two common pork barrels; divided the iron and put half in each barrel, and filled with water. When washing days came the suds were thrown into the barrels, making the mixture black as ink. This was late—July 26th. Of course I hadn't it in season to water early beans, but I commenced watering half a patch number one, butter-bush beans. I had picked them twice, and taken to market. Did not expect to get any more. I watered them with the above solution three or four times; they blossomed again, and I had three better pickings than the first. No. 2, Lima beans—watered as above, and the result was astonishing; vines loaded, breaking down the poles, yet I kept picking and sending them to market. They kept green and good, and I took good shelled green Lima beans to market the first day of November, while those not watered, of both kinds, were all dried up. Now try the above if you like. But if any of you have a pear tree, or trees, try it, and if you don't tell me next fall that you never saw or ate such delicious pears in your life, I shall be disappointed with your success. By watering mine last year those who ate of them said so. I shall use this mixture very extensively this year. I think it pays fifty per cent.



AN ENGLISH COTTAGE.



THE FIELD MICE.

wholesale here for from 4c to 6c per pound, say 5d. The freight carriage on the passage would be less than one ld. per pound, which supposing the meat retailed at 8d. per pound, would give a profit of 4d. The Company is going to work as soon as possible, and will inaugurate a new branch of industry.

other 30,000,000 of our population, besides leaving a large surplus for export. When properly grown and harvested, it works up clean—no waste. This grain furnishes the concentrated fattening food and the stalks of the bulky fodder for horses, cattle and sheep. Nothing is lost. It is also a crop

adapted to nearly every State in the Union, the range of its cultivation extending beyond any of our so-called grains or grasses, and in many localities where it is not profitable to raise it for grain, it furnishes the best means to make up for a short crop of grass for fodder."

The

It is a frequent... able, in the fields in the crop, or in... There are... against ei... ber to ha... ments bei... furnish a... in the m... 23d, we fi... to the Hi... Scotland... made on... to test th... The ma... tentive p... first expe... on blue l... sharp, gr... In the fir... acres, re... very uni... apart an... portions... from top... made far... upon th... which th... with a li... in, or 5 i... the who... plowed... ed until... ed. On... thrown... the east... of manu... toes. T... eastern... manure... mangold... the latt... into two... one of w... nip mar... that the... manure... quality... all the... factory... steps we... ity, and... us to ap... conditi... to be th... turn sh... the bes... bill of s... in the a... ed quar... care to... the wi... the lan... to the v... of cour... compar... 20 tons... tively u... and the... underg... the sec... was m... is onc... to conc... in the... and po... compos... the au... The... as follo... one-eig... pounds... were d... being... in the... potato... and w... The... ing th... increa... adopte... tatoes... of spr... ments... of dis... The... very o... doubt... throu... search... ed ab... the p... grow... bulb... 3 cwt... cwt... the s... estin... ficial... saved... It is... tumb...



The Application of Manure.

It is a subject of great importance and of frequent discussion, whether it is most profitable, in the long run, to apply manure to the fields in the fall preceding the planting of a crop, or in the spring, just before planting.

The nature of the soil in reference to its retentive power is an important element. The first experiment was on alluvial land, resting on blue lia clay; the second on a sharp, gritty soil resting on gravel.

The trial with potatoes resulted as follows: The fall-manured plot of one-eighth of an acre yielded 3,580 pounds of potatoes, of which 537 were diseased.

The above is interesting, as showing the greater liability to disease as well as the increased crop when spring manuring was adopted.

The result in the case of the mangolds was very decidedly in favor of autumn manuring, doubtless attributable to the greater area through which the rootlets were distributed in search of food.

Table with 3 columns: Manure type, Tons, cwt, gr, lbs. Rows include Farmyard manure alone, With artificial, Spring manured, and Autumn manured.

It is thus, we think, clearly established that for root crops other than potatoes it is best, provided the nature of the soil is sufficiently retentive, to apply farmyard manure in the autumn, probably because the distribution of the plant food through the soil induces a more perfect development of rootlets.

THE MILL ON THE STREAM.



THE MILL ON THE STREAM.

hill was kept until spring, and, as it must have become to some extent concentrated in the interval, an equal weight would contain more manurial value.

Table with 3 columns: Total, Diseased, Val. pr. Acre. Rows include Autumn manured and Spring manured.

up the advantages of either plan of manuring giving the circumstances that make each the better way. Autumn manuring is best when commercial fertilizers are used.

The Weather and the Crops.

Following an old common-sense rule, tolerably well sustained by results of scientific observation, we ventured a month ago the prediction that the long spell of cold and dry weather in April and the first half of May would be followed, as it was after May 15th, by a correspondingly long spell of a different character.

The moisture has come, not since the date just mentioned have the crops suffered for want of rain, though a little more steadiness and warmth might be desirable.

Value of Wheat Meal.

The London Dietetic Reformer shows by scientific date, that wheat meal, which is cheaper than bolted meal or fine flour, contains one-third more nutriment than flour does from which the bran has been sifted.

Pinching the Vines of Melons, etc, etc.

The leaders of squash, melon and cucumber vines, etc., should be pinched when they have acquired a length of from six to twelve inches. Pinch only the extreme tips. They will immediately throw out laterals.

superior on the first part where the manure had been autumn applied.

Table with 4 columns: Produce per Bush, Weight, Value. Rows include Autumn manured and Spring manured.

The difference in weight was fully borne out in commercial value. No 1 realized 64s. a quart while for No. 2 not more than 58s. 8d. could be made.

In the second experiment the soil, as has been described, was sharp and gritty, and the subsoil gravel. Here we should have expected that some portion of the autumn manure might have been lost, from want of retentive properties in the soil.

Here again, as in the first experiment, applying manure in spring increased the crop and the tendency to disease.

The rest of the experimental field was planted with White Globe turnips, no artificial being used. The spring manure proved the better crop, probably this result may be partly due to the fact that turnips have not the same power as mangolds to throw out fibrous rootlets.

The total result of the two years in this experiment, were in favor of fall manuring. The total value of crops on the five acres of fall-manured, for the two years, was £147 3s; while on the spring manured the value was £13 19s 1d.

The farmer who made the experiment uses





AGRICULTURAL NOTES.

HEAVY OATS.

From the Field.

It has often struck us as being not a little remarkable that there should be so many light-weight oats in the market for England, Ireland and on the Continent. A great portion of this crop will be found to weigh under forty pounds to the bushel, and indeed thirty-eight pounds seems to be the more general weight of the market. In Scotland—as this grain is grown for human food—the case is different, as there the crop is grown in the best soil, and, like other grain crops, great care is taken in the cultivation of the oats. It may then be taken to be an established fact that oat growing as horse and cattle food is not practiced with sufficient care to obtain the best results; and we shall, therefore, offer a few remarks upon the principles to be attended to in attending different results.

Of all our cereal crops, the oat is the one whose origin is the most clearly established. In the course of a few years, with care, attention, and selection of the wild oat, (*Avena fatua*) we succeeded in obtaining very fair crop oats, and while doing so we watched the degeneracy of crop oats into wild ones. Now the grain of *Avena fatua* in its natural state weighs but fourteen pounds to the bushel; but by choosing the heaviest seed to carry on our experiments, we arrived in six years at a grain weighing thirty-eight pounds to the bushel; and subsequent experiments presently to be detailed, convince us that far better results might have been arrived at from this stock.

But, in considering the weight of oats, it is necessary to point out that the poorer the oats the greater the disproportion in the relative amounts of meal to husk—the former, indeed, increasing with the increase of weight of the samples. In an article on the "Composition of Oats," in Morton's Cyclopaedia of Agriculture, by Dr. Voelcker, we find the following: "The proportion of husk varies in different samples of oats more than in any other of our generally cultivated cereals. Not only is the quantity of meal produced by different kinds of oats very various, but different samples of the same kind furnish different quantities of husk and meal, according to the mode of culture, season, soil, and manure."

Bousingault obtained.....	178 of meal 22 of husk (air-dry)
Hermstadt obtained.....	58 3 of meal (dry) 24 2 of husk (dry) 7.0 of water
Vogel obtained.....	66 of meal 34 of husk (air-dry)
Norton obtained.....	70 28 of meal 23 68 of husk (air-dry)

Now these figures are sufficiently expressive of differences, but they do not point to the important fact of the sorts operated upon—a point which is more clearly settled by the following; Dr. Voelcker obtained.

From black English oats.....	281 lbs. of meal 71 lbs. of husk.
From white Scotch oats.....	231 lbs. 28 of meal 66 lbs. of husk.

Here, then, is Scotch oats, which the analysis shows to be good, the meal is, as near as may be, half the weight of the husk; while in the poorer black oat the meal is a little over one-fourth of the seed, nearly three-fourths being husk.

Now, as these estimates do not mention the weights per bushel of the grain operated upon, we determined to make a careful analysis of these parts in oats of our own that we could weigh, and we got the following results:

From black Tartarean Oats, 40-lb. Bushel.	
From the farm, obtained from 1 meal.....	28 grains.
100 seeds.....	husk... 16 grains.
From White Potato Oats, 50-lb. Bushel.	
From the farm, obtained from 1 meal.....	40 grains.
100 seeds.....	husk... 20 grains.
Total.....	60 grains.

These great differences point to the ease with which the separation of meal and husk was done; in fact, the husk was separated from each seed so carefully that no amount of powdering or grinding could do it so effectually. The difference between forty-

four and sixty points to the difference in size of the thin grain of the black and the plump grain of the white oats, and the fact of the latter, which weighed fifty pounds per bushel, yielding two-thirds meal, shows the great value of the better kinds when compared with the poorer ones.

It was, then, the wide difference to be observed in the oat crop that induced us to look carefully to the results in each crop, and, if possible, to trace the cause, and in so doing we seem to have arrived at the following conclusion.

1. Light seed, say from 38 to 40 pound per bushel, will produce a light grain for two reasons—(a) the quality of the progeny will usually be that of the parent; and (b) thin oats have twice the number of seeds to a given measure than plump ones; and in order to test this we counted an ounce of each of the following, measured in a tall, thin, upright measure; one ounce of potato oats, 50 pound bushel, gave 384 seeds; 1 ounce of Waterloo oats, 44 pound bushel, gave 623 seeds. Here, then, while two bushels of the first, as seed to the acre, would be then sowing, the same quantity of the latter would be thin seedling.

2. The best and heaviest seed that can be procured is the cheapest to sow, as it will not be too thick at the same rate of sowing, and each seed will be likely to bring a strong plant, and thus to produce a good measure of heavy seed.

4. In our practice we have found that the heaviest oats used as seed not only produce a crop of light character in this respect, but also a greater measure per acre. Here however, we confess that some of our neighbors disagree. They say that they can produce sacks more per acre of poor black oats than they can produce of heavy white ones, and hence any quality is to them good enough for seed; at the same time, when we come to ask if they have ever gone to the expense of the best white seed; we are bound to confess that in no case have we obtained an affirmative answer.

We have a lively recollection of a neighbor sowing Waterloo oats, in a field adjoining ours, with a crop of potato oats. Well, at harvest time our friends remarked, "Your oats are as good again as mine; what can be the cause?" On looking into them the cause was soon visible; to every two of our tall stems, of the size of good strong goose quills, there were in our neighbor's field ten goose-quills. We therefore suggested that they were too thick, when it came out that because it was a thin, poor sample, somewhat about a sack and a half had been drilled to the acre, while our own crop was drilled at the rate of two bushels to the acre—not of thin, poor seed, but of plump seed, weighing forty-eight pounds to the bushel. In sowing oats then, we always procure the best and heaviest seed we can; and we further make a rule of grain and again screening all the smaller grains from the bulk; and the result is that, though we do not point to pedigree oats, yet by using the best seed in the market, and selecting, as it were, only the best from this, we always secure a good crop of this grain, far superior in quality to that of any of our neighbors.

SANFOIN AND CLOVER.

At the last meeting of the Winfrith Farmers' Club, England, Mr. J. J. B. said I will first make a few remarks on the cultivation and treatment of sanfoin. This I consider one of the principal of our forage crops, being a perennial deep-rooted plant. It was in cultivation on the Continent long before it was introduced as a field crop into this country. About the middle of the seventeenth century it was brought from France, and was first called "French Finger Grass," hence the term "French Grass." On lands suitable for its cultivation no farmer can grow too much of it; it will grow on any soil where lime is present, but more especially on lands of light dry calcareous formation; on such it will, I think, give a greater return than could be obtained from any other of our cultivated plants. Soils which contain a large proportion of clay are unsuitable for its cultivation. There are two varieties—the giant and the common sanfoin. The latter is preferred where the land is intended to be kept down for some years to its cultivation, but if only for two or three years, I think the former variety preferable, as a much larger produce is obtained, and the seed is generally cheaper. The seed is grown after a crop of hay has

been obtained, which is not the case with the common variety. There is a very great advantage on growing sanfoin on thin soils, in consequence of it being such a deep-rooted plant. When soils have been found too close to the rock to carry the ordinary crops, they have been brought into beneficial cultivation by being laid down to sanfoin for a course of years. The roots of the plant ramify through the clefts of the rocks and carry down with them the air and rain-water from above, and thus they bring to the surface large supplies of mineral food. In the preparation of the land for sanfoin great care should be taken to clean it of weeds. This is an important consideration, and cannot be too strictly attended to. The principal districts in which sanfoin is grown are Hampshire, Wiltshire and some parts of our own country, on the chalk soils. The usual practice is to sow down the sanfoin with the barley after turnips; but in so doing we should be very particular as to the hay fed with the turnips, as seeds of the hay, if too ripe when cut, as well as those of weeds, will germinate and soon produce a foal piece of sanfoin. The yield of the crop mainly depends on the condition in which it is sustained. If mown and carried off year by year, as is too commonly the case, the plant soon becomes weaker, the indigenous plants increase and rapidly displace the others, and the land becomes a mass of weeds. If, however, it be regularly pastured down or mowed with hay, and fed upon afterwards with corn or cake, the condition of the land will be kept up and the plants maintain vigorous growth. I think it is important not to feed from the first year's growth, but to let the plants root themselves well in the soil. In order to protect the crops as much as possible from the natural grasses it is a good practice to harrow the young plant in early spring, thus displacing the shallow-rooted weeds, and then, by adding manure, you encourage the growth of the sanfoin. The time for cutting for hay should be immediately it shows flower, for its nutritive value decreases as the flowering proceeds. It takes three years to arrive at its maximum of production, and if the soil be suitable by proper treatment and the crop kept clean of weeds it will keep up its rate of production for about five years, when the increase of the natural grasses generally tells on the crop and shows that it is time to plow it up. The other part of my subject is the growth and management of clover. This plant, as well as sanfoin, we are told, was not known in this country until the 17th century. Before that time many of the clovers were known as common weeds, and no doubt in the natural pastures had furnished food for the wandering herds. There are many species of the clover plant which are cultivated in this country for forage and feeding purposes, while many of the others are found in the natural pastures. The common red clover is the most important to us, it being a vigorous and productive grower in suitable soils, furnishing a large amount of nutritious and sweet herbage. Clovers enter so generally into the rotation of the present system of farming that we meet with them in cultivation on every description of soil. They form large roots, which have a tendency to penetrate deep into the soil and to seek supplies of food from the lower stratum; thus they secure the power of obtaining moisture while the most surface-rooted plants are suffering from the effects of the summer sun and drought. I consider in all cases we must endeavor to secure for clover a deep, well-tilled soil, and free from stagnant water. The proper place for red clover is between two straw crops, which place it invariably occupies, and if instead of sowing ryegrass with clover, a mixture of clover with sanfoin and white Dutch could be relied on, it would be much more beneficial to the soil, for the ryegrass partakes of the same food and belongs to the same order as both the preceding and succeeding straw crops. The evils resulting from the continuous cultivation of the same crops on the same ground are known practically to every one. The usual time for sowing is from the middle of March to the end of April; if it takes place too early, the danger is losing the young plant by frost; and if too late, and the season be dry, the danger lies in the seed vegetating and getting a firm hold of the soil before the heat of summer. I think it best to sow part at the time of sowing the corn and part after the corn is up before the land is finished off with the roller. After the harvest, when the young clover covers the land, pigs are turned in for the purpose

of picking up the corn left on the land, and they will sometimes take a fancy to the cover and tear up the plant, materially injuring it. Then, perhaps, some will turn the sheep on, which are apt to eat the clover down to the crown of the root, which, if left exposed to the winter's frost, is sure to die away before the spring comes. In its early growth the clover is a very tender plant and the less it is touched after the straw crop is cleared off the ground the better; the great object is to get it well rooted before the winter. In the following summer when the crop is mown for hay, it is desirable to wait until the plant has begun to form its flower-heads, when it should be at once cut, and the less it is handled after the better, so that the leaf is preserved, therefore cutting with the scythe is preferable to the grass-cutting machine; when the crop is intended for seed the best plan to adopt, I believe is to feed off the first crop before it arrives at maturity, and then lay up the field until the seed is matured; whereas the general practice is to take the hay crop first and then let the second growth stand for seed. Our climate is certainly far more favorable to the growth of clover than to its full maturity and seed produce, and constantly the seed crop is rarely satisfactory. It is important that the seed be fully matured at the time of cutting, and that it be left out in the field until it becomes quite dry and hardened. The disease to which our cultivated plants are liable are very imperfectly understood; the crop now before us affords a marked instance of this great deficiency in our agricultural knowledge. The clover plant is frequently greatly injured by the form of disease called "clover sickness," but the real cause of such has never, I think, been really ascertained. These are mysteries far beyond the highest human knowledge, but the veil is sometimes capable of being withdrawn, yet only when people do not rest satisfied with a forgone conclusion but are content to keep their minds open to fresh suggestions without indolently making up their bundle of faggots and wrapping themselves up in their own prejudices.

Mr. Budden said he had put down his sanfoin with wheat and also with barley. In the former case he had a good plant and a good crop of hay, but in the latter the state of things was just as unsatisfactory, although the land formed part of the same field.

Mr. Budden mentioned he was going to put into some strong and troublesome ground a mixture of two bushels of sanfoin with other seeds, Italian and clover, in proportion.

Mr. Besant quite agreed with Mr. Scott as to the advantage of sowing French grass, observing that through his window he looked out on the poorest hills in the county of Dorset and saw a good crop of hay from this French grass. (Mr. Scott: and not much put on the land, either.) With regard to sowing ryegrass with clover; they often disagreed one with the other; ryegrass was an interruption to the growth of clover. He thought it would be a benefit to mix their seed more, and that they were not sufficiently particular as to the sowing of the best seeds. He considered it better to sow sanfoin on their land than get a crop of poor corn, particularly in these days, as by the former they could save the labor of a man and a span of horses. He mentioned he had grown extraordinary clover with wheat stable; he turned his pigs to grass and he did not think they injured the clover.

The great object now-a-days was to economize labor, and produce as much food for stock as possible. Italian and green rye came early for feeding sheep, but they were something between corn and grass, and the question is how far they depreciated the clover crop when sown with it. There could be no question as to the value of the early feed for sheep. The great question was as to the best mode of putting down their green crops—whether clover and sanfoin, or whether mixed with Italian and other grasses—putting them down in the best manner so as to last the longest. They were crops which did not pay for breaking up too often. Regarding sanfoin, there could be no question that where the land was suitable it was one of the most advantageous of crops. How to plant and when to break up were important questions. One great secret was to get the plant well established before it got poisoned with a number of weeds and plants which they did not desire to cultivate. They should do everything possible to



on the land, and a fancy to the material, materially some will turn to eat the clover root, which is frost, is sure comes. In its a very tender ched after the ground the bet- it well rooted following sum- for hay, it is plant has begun en it should be handled after is preserved, cythe is prefe- machine; when the best plan to off the first at maturity, held until the the general crop first and stand for seed. more favorable to its full ma- constantly the ory. It is im- fully matured at it be left out in quite dry and rich our cultiv- before us affords at deficiency in. The clover injured by "clover sick- such has never, ned. These are highest human metimes capable ly when people a forgone con- ceep their minds thout indolently aggsots and wrap- own prejudices. d put down his with barley. In od plant and a latter the state actory, although same field.

ne was going to ubsome ground of sanfoin with ver, in propor-

with Mr. Scott g French grass, ndow he looked of the county of hay from this and not much With regard to ; they often dis- reggrass was an of clover. He it to mix their e not sufficiently of the best seeds. sow sanfoin on poor corn, pars by the former of a man and entioned he had er with wheat to grass and he the clover.

ay was to econo- much food for a and green rye sheep, but they corn and grass, they depreciated with it. There the value of the the great question of putting down clover and san- with Italian and em down in the e longest. They pay for breaking g sanfoin, there here the land was ost advantageous d when to break ions. One great well established a number of weeds not desire to cul- anything possible to

strengthen and invigorate the plant. Early mowing did the land injury and weakened the plant; feeding the first year and mowing the second were, he thought, advantageous with respect to sanfoin as well as clovers. They should be careful to avoid degenerating and weakening the plant. In conclusion, he said the subject had been introduced in a practical manner by Mr. Scott, to whom he (Mr. Bates) was sure would be given a cordial vote of thanks.—*Mark Lane Express.*

HAY-MAKING

That an immense quantity of hay is spoiled annually by many farmers plodding on in the ancestral ruts and clinging to the old hazy tradition of the custom of the district in which they live, heedless of the appearances and circumstances which guide their more enlightened brethren as to the proper time for mowing this important crop, is abundantly evident to every well informed agriculturist.

Because Mr. Jones, whose land is well sheltered, loamy, friable, and dry, has begun hay-making, Mr. Brown must follow suit, although his land is cold and exposed, clayey, mossy, and wet, and notwithstanding too that he has applied different dressings and manures to the soil. It is surely worse than absurd thus to do out of season what others do in season, simply to be up in the race, and to make hay on dry soils and wet, clayey soils and mossy, sandy soils and loamy, at the same time, regardless of the condition of the grass plants.

The right time to mow grass greatly depends, of course, on the system of farming pursued, on the character of the pasture which produces it, and on the nature of the soil and climate, but especially on the condition of the plants as regards maturity. Hay is just as much injured by being allowed to get over-ripe as it is by being cut too soon. Moreover, the farmer ought to be guided in a great measure by the use to be made of the article—whether to feed horses, cows, young stock, or sheep. If for horses at work, the grass should be mowed after it has passed out of blossom, when the seed is in the milk, because at this stage it contains the largest quantity of nutritious substances, such as sugar, starch, gum, etc., which are of the highest value, contributing much towards rendering hay such a choice article of food. If for cows, it should be cut earlier, so as to leave the grass as nearly in the green state as possible—soft and succulent—because in this condition it contains a larger quantity of juices which assimilate well in the animal, and produces a greater flow of milk. If for young stock and sheep, the grass should be mowed when in full flower, because after flowering, and as the seed forms and ripens, it is exposed to loss in its nutritive matter by the seeds being shaken out and the brittle foliage breaking off during cutting and making, and the grass itself, especially the rye grass, becoming almost a woody fibre, losing nearly all its sap and sweet aroma. In short, hay made from over-matured grass is no better than ordinary straw, if indeed so good.

Clover, again, which is such excellent food for milk cows and sheep, should be mown immediately after blossoming, before the seed is formed. It should be cured by gently turning over the swathes in such a manner as to lose as little of the foliage as possible, and the tedding-machine ought never to be used under any circumstances. Moreover, clover ought not to be exposed long to the sun, but, being wilted and partially dried, should be put up into small cocks and left to cure for four or five days, when it will be fit to cart away. A very good method to prevent fust in a wet season is to carry the green clover and lay it in alternate layers with dry straw, sprinkling a little salt on each stratum. Fermentation will speedily set in, giving a sweet clovery flavor to the straw, such as cattle like very much and eat with avidity. Besides, straw is a good corrective of the heating qualities of clover ricks. The most profitable use of clover, however, I have found to be to cut it green for the farmstock, or to feed it off with sheep.—*Cor. London Times.*

STOCKING DOWN IMPOVERISHED LAND

When a soil has produced a crop every season for many successive years, and every thing that grew on it has been taken off and no fertilizing matter returned to it, it is sometimes almost an impossibility to get grass-seed of any kind to vegetate on it,

and many times grass seed is sown from year to year, and all lost, because of the barrenness of the soil. In such instances seed may be sown twice a year, under the most favorable circumstances for seed to germinate and fail to grow. Almost every farmer knows that there is seldom any difficulty experienced in securing a good catch with any kind of grass seed, even when it is sown early or late, providing the soil is in a good state of cultivation.

Now then, what is lacking? Nothing but a little manure or vegetable matter to stimulate the growth of the young plants. Let the soil be first thoroughly drained and then ploughed well and thoroughly pulverized and the different kinds of soil thoroughly mingled together, and at the same time let as much manure be ploughed in as will cover the ground. Sow some spring crop and after the grain is sowed spread some well rotted barn-yard manure over the entire soil and harrow it twice thoroughly. Roll it and then sow eight quarts per acre of several kinds of seed; and if the grass seed is good there will be no failure. When manure is scarce sow Indian corn and oats, not too early in the spring, at the rate of three or four bushels per acre; and when the crop has attained its full growth plough it in, and late in autumn plough the ground again; and in the succeeding spring sow with oats or spring wheat, and sow grass seed as directed in the preceding paragraph and there will be no difficulty in getting a good catch. If spring rye can be obtained that will be the best kind of grain to seed with, because the leaves will not grow so thick as to smother the young grass. Two quarts of timothy seed, four quarts of the small kind of red clover, and two bushels orchard grass seed, evenly sowed, will seed an acre well if the soil be prepared as directed. Then keep every hoof and tooth off it until a year after it was seeded.—*N. Y. Herald.*

UTILIZING WASTE ORGANIC MATERIAL.

Within the past few years there has grown up a new industry, based upon the saving of blood and other offal at the slaughter house, and the "fankings" (or bottoms of the tanks) in which grease is rendered. All this material has heretofore been either wasted, or the attempts to utilize it have been so crude and ineffectual as to make the business not worth pursuing. At the present time, about New York, Chicago, Cincinnati, and Baltimore, a large amount of capital is employed, with machinery and skilled labor, by which many thousands of tons of dry inodorous nitrogenous matter are prepared and put in the market. This is sold readily at wholesale, at about \$3.75 for each unit of ammonia in a ton:—e. g., such as contains 10 per cent. sells at \$37.50 per ton. It is bought by makers of fertilizers to furnish the proper proportion of ammonia in their compounds, and preference is said to be given to it over the Peruvian Guano, which was formerly used for that purpose. In this case the buyer pays for only the actual ammonia contained in the dried material, while the price for Peruvian Guano is uniform, though the quality is variable.

THE FOREIGN WHEAT REPORTS.

The foreign wheat trade has a very intimate connection with our own. The prices of wheat at the present time depend almost entirely on the necessity that exists in Great Britain and France, as well as some other portions of Europe, to obtain supplies for their population. Let the foreign demand drop off, and the surplus wheat which the northwest is stocked this season would cause a decided decline in prices, and whilst there are none that would feel this decline more than the farmers, all sections of business would unquestionably suffer from it. The wants of Europe, at the present time are greater than they have been. Mr. Thomas C. Scott, in a letter to the *Mark Lane Express*, says that with the check that has been put on vegetation by the cold weather that has prevailed during the first fortnight in May, the thermometer sometimes marking down below zero, it has become certain that the harvest will not be as early as was expected, and that the population will have to wait fully till September, before there will be any relief from the new crop. Meanwhile the supply of domestic hay decreased during the past six weeks, very considerably compared with that of previous years. In fact, in 1871, 1872, and

1873, the delivery of home-grown wheat throughout the Kingdom per week averaged 424,000 quarters, and in 1873 the delivery for the same week in May was 464,000 quarters. There has only been delivered for the corresponding week of this year 335,200 quarters, or a decrease since last year of 128,800 quarters. Nor is this all. The *Mark Lane Express* of the 18th of May says that for the last four weeks the supply of wheat and flour has only been equal to 595,000 quarters, or but a little over one-half the amount needed, for in reality Great Britain alone, not counting in the other countries of the continent, requires somewhat over a million of quarters, or eight millions of bushels of foreign wheat per month to keep herself in breadstuffs up till next harvest. If her demands are now reducing her stocks of wheat, which it is likely they are, it only renders more certain that her wants will be greater, and with less ability to gain a supply in the course of the present and next month.

FARMERS' CLUB.

Abridged from Markham Economist.

The Farmers' Club met on Saturday the 6th inst. There was a very fair attendance of members. Mr. Gibson, the President, was in the chair.

Fencing was the first question to be considered. Mr. John Reesor said that he had tried several systems, and his experience was that the old fashioned cedar rail zigzag fence, well staked and ridged, with good blocks under the corners and heavy rails at the bottom, was the cheapest and most durable fence. He had such a fence on his farm that was sixty years old, and it was very little worse than when put up. The frost would heave board fences, and they soon became dilapidated.

The President said he approved of portable fences, but did not know the cost. Some live fences were highly spoken of; the sweet briar was said to make a good fence. He did not approve of the willow, as a rule it was a nuisance, it required very great care and was only fit to amuse old people. Maple, cedar and native thorn, were said to be quick growers, which was necessary for a hedge. Board fences if properly made, were very permanent and cheap. He had such a fence put up thirty-two years ago. The posts were large and put in deep, and the boards were only three-quarters of an inch. It was a little too high, but was still in good condition. He also had a pine rail zigzag fence, put up the same year, and the rails were still sound. He approved of the straight post and rail fence, he thought it the cheapest and best fence if properly built, with blocks at the bottom, posts well set, and rails laid against the south and west sides of posts, and the tops fastened with galvanized wire. Their own weight kept the fence firm. It saved both timber and rails, and was cheaper than a board or any other kind of fence that he had tested,—a good quick fence might be cheaper.

Mr. Martin said the sweet-briar might be a good fence in some respects, but it had one very serious drawback, that of pulling the wool off the sheep.

Mr. Tran fully understood quick hedges. They require to be kept as clean as a garden, to be made proof against cattle, sheep, &c. He did not think, all things considered, they would prove as cheap as other fences in this country where labor was so high. The Osage orange made an excellent fence in lower Illinois in two years. It was a grower.

The President said that some farmers in Scarborough were trying a new kind of fence with blocks between ends of rails, and staked and ridged. He had thought that live posts might be raised by planting cedars at proper distances, to which to fasten rails with stays and galvanized wire. The cedar was a rapid grower, and in a few years would be strong enough for a post, for the ordinary post and rail, straight fence. Maples and thorns were liable to be girdled by the mice.

H. P. Crosby, M.P.P., did not think cedars would grow on high clay lands. Maples do well; he thought locusts would also answer a good purpose, for live fences it was hardy, grew bushy, had the thorn and was a rapid grower. They were liable to spread and would require ditches to prevent it.

Mr. Bain said that in Britain, our common beach with an occasional thorn, inter-

mingled, proved to be the best hedge; it grew rapidly, was almost bird proof and very ornamental. The Osage orange was tender and froze off as far south as Illinois, and required as much cultivation as corn. He thought the thorn hedges here would grow well; the thorns on Mr. McPherson's farm appeared very thrifty.

Mr. Milliken said the only objection to the worm fence was, that it occupied too much land, but if the land was well worked and seeded down before the fence was made, the fence corners became equally remunerative for hay, with any other part of the field. He thought the board and rail fences, were both cheaper and better than live fences in Canada. He had thought of planting trees for live posts; Lombardy poplars, being rapid growers. Spruce would also do if cheap enough; also cedar and larch, they would all bear to have rails fastened to them without injury.

SALT AS AN AID TO MANURE.

About five o'clock one fine summer's morning, I noticed that, where the salt had been sown the previous day, every grain of salt had attached to itself the dew, and formed on the surface a wet spot about the size of a sixpence, the ground being generally very dry.—On our light lands it consolidates them and makes them especially firm and acceptable to the wheat plant, whose straw will stand firm and erect, although four and a half to five feet long. It is also unfavorable to certain weeds by this consideration. It prevents the ravage of the wire worm. It is especially favorable to saline plants, such as mangolds, whose ashes contain fifty per cent. of salt. I never saw guano, except mixed with its own weight of salt. Like everything else, it has, I am sorry to say, greatly risen in price. I observe that all crops seem to thrive well on land near salt water, especially where the land is drained.—*Western Rural.*

ABOUT HAY.

A contributor to the *Hartford Courant* says: "In expending our little hay of hay—a twelve-foot cube, or thereabouts—I find each horse-load reminds me by its peculiar herbage, of the part of the meadow it came from, and the circumstances of its gathering in the regular inverted sequence of the hay harvest. The loads that were perfectly cured gave an account of themselves in a more aromatic sweetness. Those that were stored with a risky excess of moisture, fell the tale in volumes of fine misty dust, especially in the middle of the mow. The heat there was undoubtedly near the scalding point; the hay shows a dull, brownish green tint, and has become very dry and brittle. The sugary gums and dried juices belonging to hay in its best condition, and tending to preserve the weight and strength of its fibre, seems to have been quite consumed in the interior parts of some of the loads. So that the young ones in one stormy day, in a jumping trolly, may reduce a whole foddering to the lightest chaff. The outside is in better condition, showing that, if I had taken the better precaution to provide one or several small air-holes from the bottom upward, as by pulling up small pieces of jost while the hay was being filled in, this waste of the richer and more appetizing portions of the fodder might have been prevented.

"A partial remedy in the use of such hay is to sprinkle each foddering with water several hours before it is wanted—a pail of water say, for ten or twelve animals. If the hay is fine, whatever provender is fed may be mingled with the hay, layer by layer—adding more water from the nose of the waterpot. This without a slop, upon a clean barn floor, or making the mixture heavier than wilted grass. The water alone will settle the dust and develop anew whatever of fragrance the hay may be capable of yielding. The improvement is as obvious as that produced in stale bread by steaming, or heating in the oven with a moist cloth. It is a similar dampening by the weather that makes rough and musty fodder, thrown from the stack, more acceptable to cattle sometimes than the best dry hay would be."

A remarkable paper has recently been contributed to a German magazine by Professor Mohr, showing not only that the sap does not freeze in trees and plants which live through hard winters, but also the reason why it does not freeze. He says that though it is true water, as we generally see and understand it, freezes at forty-two degrees, it does not do so when its particles are finely divided. Tropical plants have large cells, and these are the ones in which the sap freezes; but in plants with very small cells, in which the liquid particles are finely divided, there is no freezing of the liquids until after the structure has received injury of some sort. This is true, he says, of insects and insect pupae. They never freeze; but cut one apart, soon after the humors solidify, and on thawing, life dies.





UNCLE TOM'S COLUMN.

MY DEAR NIECES AND NEPHEWS:

I don't often get a chance to see my far-away nephews and nieces, and only know them by their letters. But I had the pleasure of hearing of some of them through their fathers and brothers, who were up in London at the Dominion Grange meeting, and I hope to see some of them in Toronto at Exhibition time, for there will be a great gathering of farmers and their wives and little ones at that time from all over Canada. If you go there, inquire for me, and I will be most happy to make your acquaintance. I have not had my usual allowance of letters from you this month, but I suppose the reason is that you are afraid of that hole in my pocket. Some of my children have sent in recipes for salves to cure it, and ointments to mend it, but just tell me what is the use of a pocket without a hole in it? How would you get your hand in? I think that must be a conundrum.

UNCLE TOM.

Ingersoll, June 12, 1874.

Dear Uncle Tom,—

I enjoyed the Queen's Birthday very much, but I think it would tire you to tell all the amusements I had, but there is one thing I must tell you, and that is the Ingers 11 Cricket players beat the London Cricket players, but perhaps the next time they play, London will have the honor.

Well, now, we must get the hole in your pocket mended, because I think it is very dangerous, and if it should let any of the little nieces or nephews through, it might hurt them, and I think you would feel very sorry if they got hurt. Get Auntie Tom to warm a little glue, and then take a piece of cloth and glue it on, and let it get cold. I think that will stop it up.

HATTIE HAVILAND.

HIDDEN CLUES OF ENGLAND.

249. Who made that rug by you side. 250. "Which is the right road to B.?" "Right on, sir."

CANADIAN CLIFF.

252. My first is in French, but not in France. My second in jump, but not in prance; "third is in lame, but not in sound; fourth is in beat, but not in pound; fifth is in sea, but not in land; sixth is in finger, but not in hand; whole is a river in England.

C. C.

253. I am composed of 14 letters. My 4, 9, 8, 8, 5, 12 is a puzzle, 3, 13, 13, 9, 6, is a girl's name, 7, 9, 1, 11 is to be ill, 8, 9, 10, 11 is a nick-name, 2, 6, 13 is a fow, 13, 9, 13, 6 is a number, whole is the name of a celebrated author.

C. C.

Dear Uncle Tom,—

Have all your pockets holes in them? If not, pick out a good one to put this letter into. I want to bring a charge against you, and I want my cousins to act as jury.

Dear Cousins,—

Old and young, male and female, please to lend an ear to my complaint. Do you know? I have written two letters to Uncle Tom, and he has let both of them fall through that fearful hole in his pocket. Why don't he tie it up with a string or pin it. If he don't mend it, he will himself fall through some day, and then what is to become of us? And now, my dear cousins, good bye. Forgive mistakes; me too.

KATIE RICHMOND.

Katie sends me some good selections for my scrap book, and although there is a hole in each of my pockets, still her letter is sound.

Maud Milford sends me a nice letter about her garden and her cousins, and also a very good selection for my scrap book.

SQUARE WORDS.

254. An ancient city, a jewel, a tool, a girl's name. 255. Immense, a river, a place of confinement, a girl's name.

CLARA GOOD.

256. When should an innkeeper visit an iron foundry? 257. Why is the early grass like a pen-knife? 258. Why are dogs valuable to tanners?

AMELIA BOBBER.

ANSWERS TO JUNE PUZZLES.

234. Do unto others as you would be done by. 235. Three ducks. 236. His name was Not.

237. During the month of March I called at an inn, and found the keeper dressed in a full suit of Tweed, lined with Holland, wearing shoes made of morocco, having soles of cork. A negro conducted me to my room, where I saw a table covered with a black cloth, which I removed and discovered it was covered with (Saychelles) sea-shells of all sizes and shapes.

At noon the landlord blew a big horn, and then we all went to dinner; the table was covered with a white cloth and furnished with china. The cook served us a trout which had too much salt in it; we also had black bread, with an egg each. For dessert we had Champagne and oranges. After dinner, Ann and Elizabeth and I rode out with a span of grays; we were much troubled with a strange man who had a span of 'lydes. As it was getting cold Elizabeth put on a cashmere shawl, and Charles put on a black coat, trimmed with large brass buttons.

238. Cod, and I dwell in the sea. 239. One word. 240. Gentleman. 241. Honor and fame from no conditions rise; act well your part, there all the honor lies. 242. Hail-stone. 243. The letter M. 244. London. 245. Cora.

UNCLE TOM'S SCRAP BOOK.

"Anna, dear, if I should attempt to spell Cupid, why should I not get beyond the first syllable?" Anna gave it up, whereupon William said: "Because when I come to c u, of course I cannot go any farther."

BUYING A HORSE AND A WIFE.

Mr. G. Gerard, of Philadelphia, formerly American consul at Cape Town, Cape of Good Hope, communicates to the press the following amusing reminiscence of his African consular experience:

"There is a very singular custom among the farmers—how to get a wife. If you desire to get married, you should first make enquiry whether the lady you love has a horse; if so, you must ask her whether she has a horse for sale. If she says 'No,' then you had better quit the house at once. She does not like you. But if, on the contrary, she says 'Yes,' it is a good sign, but she will ask you a very high price. If the amount named is paid on the spot, the engagement is concluded, as fully as if the marriage was consummated by the parties.

"On my arrival at the Cape, I did not know of this custom. I wanted to purchase a horse and I was informed by an old Dutch resident that Widow — had one to sell. I followed the address given, and soon arrived at the door of the widow (who, by the way, was not bad-looking.) I asked her whether she had a horse to sell. She looked at me very sharp; then asked me whether I had any letters of introduction. I said that I was an American consul, and would pay cash for her horse. 'In that case,' said she, 'letters are not necessary.' I paid down the sum demanded; then, after taking a cup of coffee, she sent her horse by her groom, and both accompanied me home. On the road the groom asked me a thousand questions; 'master,' said he, 'will my mistress go to live with you in town, or will you come and live with us? You will love my mistress, for she was very kind to my old master (laughter.) Where will the wedding be?' (looking at me and laughing.) Truly, I thought, the poor fellow has drunk too much, or he is an imbecile. I felt sorry for him.

"When I arrived home I found many people at my door congratulating me not for the horse, but the acquaintance of the widow. 'Truly,' said one, 'you have been very successful.' 'She is very rich,' said another. 'I really did not know what it all meant, and I began to be very uneasy, when to my great surprise, a lady alighted on my steps, and at once I recognized the widow! She very coyly asked me when I desired to have the ceremony of the wedding performed. Then, indeed, I fully perceived the scrap in which I was, and told her frankly that it was a horse I wanted, and not a wife. 'What,' said she, 'do you mean to act thus to a lady like me? If so, I shall send back for my horse, and will repay you the money. In a few hours her groom was at my door with the money. I gladly gave back the horse, thankful to have thus escaped. A few weeks after, however, the widow was married; a more ambitious man had bought her horse."

SALLY STEBBINS.

Sally Stebbins, seeing Sam slyly stealing sugar, stepped silently, seized Sam's spoon, scattering several spoonfuls. She spoke sharply, shaking Sam soundly.

Sam struggled, scratched, screamed; struck Sally spitefully; scampered swiftly shed-ward, seeking sire. Sister Sully scolding, speedily swept scattered sugar.

Sire Stebbins, smoking segar, sawed slender spruce saplings. "Sire, sire," said Sam, "Sal's snary; she scolded, shook sire's so soundly; she's snappish."

"Stop, Sam," said sire sternly; "Sam st:an't speak so; Sally's splendid, splendid!" Said Sam, satirically: "Scissors! sometimes she's sensible; sometimes she's simple."

"Simple Sammie, sensible Sally," said sire, smiling. "So Simon says," said Sam. "Simon?" said sire.

"Simon Somers," said Sam; "Simon's sparking Sal." "Sparking Sally!" said sire, surprised. "Surely so," said Sam. "Simon's seen Sally seven successive Saturdays."

"So, so," said sire; "Simon's steady, smart, social; scorns swearing, swindling scamps." "Surely so," said Sam. "Simon's super-dangulous."

"Shoul'n't speak slang, Sam," said sire; "seize splinters, shavings, seek Sally; say sire's starving—skeddadle."

"Shoul'n't speak slang, sire; skeddadle's slang." "Speed swiftly, saucy scoundrel," said sire. Sam sped swiftly, shouting, "Some supper, Sally, supper; sire's starving!"

"Samuel Stebbins, stop screaming so; Susie sleeps soundly," said Sally, simultaneously striking Sam.

Sam started, stumbled, spilled Sally's soap-suds—souse, splash. Sam sprang, shrieking "sire, sire. Sam's scalded."

"Scalded?" said sire. "Spattered shoes, stockings some" said Sally, smiling; "soap-suds scarcely steaming scares Sam."

"Shame! shame! silly Sam," said sire. Sam slunk slyly, soberly, sheepishly shed-ward.

Sire soothed scared, robbing Susie. Sally scoured spoons, starched Sam's shirt, served supper.

Soon sire Stebbins, Sam, Susie, Sally sought shady sycamore shrubbery. Sally sewing sang; some sweet songs.

Sam shortly spied Simon Somers, Sally's suitor, striding swiftly Sally-ward. "Sire, sire, see Simon," said Sam. Sally, seeing Simon, stopped singing, smiled, sighing softly. Stebbins sent signalled Sam; so sire, Susie, Sammie sauntered shed-ward.

"Simon's sober," said Sally, seeing Simon seem sorrowful.

Simon smiled sadly; sitting, said softly:—"Sally, sweet Sally."

Sally, scarcely surprised, said, "Simon, seek sire."

Simon speedily sought sire. Sire said:—"Sally's smart," Simon said, "Sally's splendid, superfine."

"So, so, Stebbin's satisfied," said sire. So Simon Somers, Sally Stebbin's one.

CANADIAN CLIFF.

A book-seller was, a short time back, rather astonished at a miner's wife bringing him Johnson's dictionary which she had purchased from him a few days before. She said "it was a poor book, and of no use to her." She had looked for "rheumatic," but could not find it; she had also searched for "gnat" but it was absent as well. On the book-seller pointing out the words, she still declined to retain the volume, remarking that "she wanted one where they did not spell the words in that outlandish manner!"

EMELINE WILKINS.

On the bank of the Hudson river; in one of the villages that dots its shores, a lot of idlers were standing, seeing which could throw stones furthest into the stream. A tall, raw-boned, slab-sided Yankee came up and looked on. For a while he said nothing, until a fellow in a green jacket, a leader of the party, a conceited broth of a boy, began to try his wit on Jonathan.

"You can't come that," said he, as he hurled a stone out into the river.

"May-be pot," said Jonathan; "but in our country, we've a purty big river considerin', and the other day I have a man clear across it, and he came down fair and square on the other side."

"Ha, ha, ha!" yelled his auditors. "Wal now, you may laff, but I can do it agin."

"Do what?" said the green jacket quickly. "I can take and heave you across that river, jist like open and shut."

"Bet you ten dollars on it." "Done," said the Yankee, and drawing

forth a X coupon, (a broken down east bank) he covered the bragger's shinplaster.

"Kin you swim, feller?" "Like a duck," said green jacket. So without further parley the Vermonter, seizing the Yorker, dashed him head over heels some ten yards into the Hudson. A terrible shout rang through the crowd as he made his way to the bank. "I'll take that ten spot, if you please," said the shivering loafer, "you took us for green horns, eh?" and he claimed the twenty dollars.

"Not so fast, my rustic doughty." "Why not; you've lost the bet."

"Not exactly, I didn't reckon on doing it the first time; but I tell you I can do it," and again he seized him and flung him three yards further into the stream. Again he returned.

"Third time is the charm," said the Yankee, stripping off his coat.—"I kin doo it I tell you."

"Hold on," said green jacket. "I will doo it if I try till to-morrow mornin'."

"I'll give it up, shouted the sufferer, between his teeth, which now chattered like a mad badger.—"Take the money!"

Jonathan very coolly pocketed the money, and as he turned away, remarked.—"We aint much acquainted with you smart folks down here in York, but we sometimes take the starch out of them down our way, and I reckon you won't try on strangers agin; I reckon you won't," he continued, and with a grin of good humor he left the company to their reflections. KATIE RICHMOND.

A KITTEN'S COMPLAINT.

I am a kitten just six months old, A regular beauty, I've often been told; You may search through all the country round But a finer kitten will not be found;

And though it is true, as poets sing, That beauty isn't the principal thing, It surely is nothing more than right To be glad one wasn't born a fright.

I think that I must have had a mother, But before I could tell one paw from another, Somebody took me out of the hay And carried me miles and miles away.

Saying cooly, "I thought that maybe You'd like a kitten to please the baby." Please the baby! just think of that— What a horrid fate for a cat!

Mean little wretch, what his mother can see Lovely in him, is a wonder to me; He clutched at my throat till I gasped in despair,

He jerked at my whiskers and pulled at my hair; He poked his fat fingers straight into my eyes, And laughed with delight at my pitiful cries.

O, ee, when he dragged me about by the tail, And nobody came at my sorrowful wail, I gave him a scratch in his face so red— And what do you think his mother said?

"Eat me, and called me an ugly old cat! Call'd him her lamb and such nonsense as that. Now, I should really like to know If there's any reason that you can show

Why a better right in the world than I? I've made up my mind that the case is clear That if somebody doesn't interfere, And take me away from that horrible child, My cruel torture will drive me wild; Somebody surely'll find me lying

One of these mornings dead or dying, And then, if your heart has ever known pity, Pray say "Here lies an unfortunate kitty Who might have lived to be known to fame, Killed by a baby—what a shame!"

LAVILLA HEACOCK.

I LOVE, YOU LOVE.

Old Jones, the village pedagogue, The grammar lesson called one day; Young Bess, a maid of sweet sixteen, Began the well known words to say:

"First person, I love," first she said, Sly Tom beside her whispered "me?" "Second person, you love," Bess went on, "Aye, that I do," said Tom, "love thee."

"Third person, he loves," still Bess said, Tom whispers—"who is he?" "Oh, Tom," said Bessie, pleading low, "Do hold your peace and let me be."

"No whispering," calls the master loud, And frowned upon the forward youth; "First person, we love," Bessie said, "By George!" Tom whispers, "that's the truth."

The lesson o'er, at last poor Bess, With cheeks all crimsoned, took her seat, While Tom, sly fellow, turned in vain The maiden's soft blue eyes to meet.

But when the recess hour was come, Tom begged a walk in coaxing tone, And 'neath the trees Bess said again The lesson o'er for him alone.

HATTIE HAVILAND.





MINNIE MAY'S DEPARTMENT.

Will Minnie May be kind enough to tell Mrs. C. McIntosh that a small dose of Epsom salts—a teaspoon level full—is a good remedy for pain in and decay of the teeth. To be taken at bed-time in a good draft of water; repeat the dose for three nights, or oftener, if necessary.

A mixture of equal parts of spirits of wine and oil of cloves, put with cotton into a hollow tooth, or rubbed on the gums or on the temples, is a valuable remedy in some cases of tooth-ache. P. H.

Port Hope, May, 1874.

Dear Minnie May,—

I thought I would write you again, as I am greatly interested in your column, thinking it a great help to farmers' wives in many ways. I have a great many recipes to send now, but for the benefit of Mrs. McIntosh I will send a remedy for toothache.

TOOTH CORDIAL. Best alcohol, 1 oz., laudanum, eighth of an ounce; chloroform, liquid measure, five-eighths of an ounce; gum camphor, half an ounce; oil of cloves, half a dram; sulphuric ether, three-fourths of an ounce, and oil of lavender, one dram. If there is a nerve exposed, this will quiet it. Apply with lint. Rub also on the gums and upon the face against the tooth, freely. Creosote is also a good remedy; apply with lint. Also, spirits of tar, but I fear the latter would prove injurious to the teeth; but if the teeth are very much decayed, it is best to have them extracted, so as to prevent further annoyance from them. But for the benefit of those who wish to arrest the decay of teeth, I will send the following recipe:

Dentifrice, which arrests decay and induces a healthy action of the gums—Dissolve 1 oz. of borax in 1 1/2 pints of boiling water, and when a little cool, add 1 teaspoon of the tincture of myrrh, and 1 tablespoon of the spirits of camphor, and bottle for use. Directions for use: At bed-time wash out the mouth with water, using a badger's hair brush (bristle brushes tear the gums and should never be used); then take a tablespoon of the dentifrice with as much warm water, and rub the teeth and gums well each night till the end is attained.

Here is also a

CHEAP BED-ROOM CARPET.

Sew together the cheapest cotton cloth the size of the room, and tack the edges to the floor. Now paper the cloth as you would the sides of a room, with cheap room paper, putting a border round the edges if desired. The paste will be better if a little gum arabic is mixed with it. When thoroughly dry, give it two coats of furniture varnish, and when dry it is done. It can be washed, and looks well in proportion to the quality and figure of the paper used; of course it could not be expected to answer the purposes of a kitchen, but for bed-rooms it is well adapted.

No more at present, but at some future time I will send you a recipe for making sweet cucumber pickles, which you will find very nice. From your friend, SARA.

TO CLEAN PAINT.

Door, wall, or anything that is painted may be cleaned with a piece of soft flannel, dipped in warm water and sprinkled with finely powdered French chalk. On being rubbed once with this the paint will become quite clean. Soap and water should never be used for cleaning paint, as soap spoils it.

TO IMPROVE STARCH.

To each bowl of starch add one teaspoonful of saltpetre, and dissolve in the usual way of boiling.

TO EXTRACT GREASE FROM PAPERED WALLS.

Dip a piece of soft flannel in spirits of wine, and rub the greasy spots once or twice.

TO REMOVE GREASE FROM COAT COLLARS.

Wash with a sponge wet with hartshorn and water.

KIND WORDS.

As the breath of the dew to the tender plant, they gently fall upon the drooping heart, refreshing its withered tendrils and soothing its burning woes. Bright oases they are in life's great desert. Long after they are uttered do they reverberate in the soul's inner chamber, and sing low, sweet strains that quell the raging storms that may have before existed. And oh! when the heart is sad and like a broken harp, who can tell the power of one kind word? Kind words are like jewels, never to be forgotten, but perhaps to cheer by their memory a long, sad life. While words of cruelty are like darts in the bosom, wounding and leaving scars that will be borne to the grave by their victim. CATHERINE RICHMOND. Newry P. O., Ont.

TO REMOVE MARKS FROM A TABLE.

If a whitish mark is left on a table by carelessly setting on it a pitcher of boiling water or a hot dish, pour some lamp oil on the spot and rub it hard with a soft cloth; then pour on a little spirits of wine or Cologne water and rub it dry with another cloth. The white mark will soon disappear, and the table look as well as ever.

TO CLEAN HAIR BRUSHES.

As hot water and soap very often soften the hairs, and rubbing completes their destruction, use soda dissolved in cold water instead. Soda having an affinity for grease, it cleans the brush with little friction. Do not set them near the fire nor in the sun to dry, but, after shaking them well, set them on the point of the handle in a shady place. JANE W. McQUEEN. Walkerton, May, 1874.

Paris, April 16th, 1874.

Dear Minnie May,—

I will send in a few recipes for your department, hoping they may prove useful and beneficial to those who give them a trial. I have taken them out of my list, which I have saved up from time to time, after reading various publications.

REMEDY FOR TOOTH-ACHE—NO. 1.

One drachm of colloidion added to two drachms of Calvert's carbolic acid, a small portion of which, inserted in the cavity of an aching tooth, invariably gives relief.

NO. 2.

Put a piece of quicklime as big as a walnut to one pint of water, in a bottle. Clean the teeth with a little of it every morning, rinsing the mouth with clean water afterwards. If the teeth are good it will preserve them and keep away tooth-ache; if the teeth are gone it will harden the gums, so that they will masticate freely.

GARGLE.

For Common Sore Throat.—Tincture of myrrh, 2 drachms; water, 4 oz.; vinegar, 1/2 oz. Mix well.

For Ulcerated Sore Throat.—Water, 1/2 pint; decoction of Peruvian bark, 1/2 pint; sulphate of zinc, 1 drachm. Mix.

A CURE FOR STYES ON THE EYES.

Put a teaspoonful of carbonate of soda in a small bag, pour on it just enough boiling water to moisten it, and then put it on the eye pretty warm. Keep it on all night; repeat the application until you find relief.—Take a dose of rhubarb and magnesia to cleanse the blood, as styes arise from impurity of the blood, and no permanent cure can be effected by a mere external application.

TO TAKE RUST OFF DINNER KNIVES.

Cover the steel with sweet oil, rubbing it on well. Let it remain 48 hours, and then, using unslaked lime, finely powdered, rub the knife until all the rust has disappeared.

GLOSS FOR LINEN.

To 1 pint of starch add 1 teaspoonful of salt and one teaspoonful of finely shaved soap.

Dear Minnie, I had more selected for you, but I think I have given you as many as you can find room for this month, therefore I will bid you farewell for the time being. LIZZIE ELKINGTON.

THE NEW CHURCH ORGAN.

"They've got a bran new organ, Sue, For all their fuss and search; They've done just as they said they'd do, And fetched it into church. They've bound the critter shall be seen, And on the preacher's right They've hoisted up the r new machine In everybody's sight; They've got a chorister and a choir Agin my voice and vote, For it was never my desire To praise the Lord by note."

"I've been a sister good and true For five and thirty year, I've done what seemed my part to do, And prayed my duty clear; I've sung the hymns both slow and quick, Just as the preacher read, And twice when Deacon Tubbs was sick I took the fork and led. An' now their bold, new-fangled ways Is comin' all about, And I right in my latter days Am fairly crowded out."

"To-day the preacher, good old dear, With tears all in his eyes, Read—'When I can read my title clear To mansions in the skies.' I always liked that blessed hymn, I s'pose I always will, It somehow gratifies my whim In good old Ortonville. But when that choir got up to sing I couldn't catch a word; They sung the most dog-gonest thing A body ever heard."

"Some worldly chaps was standin' near, And when I seed them grin, I bid farewell to every fear, And boldly waded in. I thought I'd chase their tune along, An' tried with all my might; But though my voice is good and strong, I couldn't steer it right; Wen they was high then I was low, An' also contra-wise, An' I too fast or they too slow To 'mansions in the skies.'"

An' after every verse, you know, They played a little tune, Didn't understand, an' so I started on too soon; I pitched it pretty middlin' high, I fetched a lusty tone. But oh, alas! I found that I Was singin' there alone. They laughed a little I am told, But I had done my best, And not a wave of trouble rolled Across my peaceful breast."

"And sister Brown—I could but look— She sits right front of me, She never was no singin' book, An' never meant to be; But then she always tried to do The best she could, she said, She understood time right through, And kept it with her head; But when she tried this mornin', oh! I had to laugh or cough. It kept her head a-bobbin' so, It e'en a' most came off."

And Deacon Tubbs—he all broke down, As one might well suppose, He took one look at Sister Brown, And meekly scratched his nose; He looked his hymn book through and through An' laid it on the seat, An' then a pensive sigh he drew An' looked completely beat; An' when they took another bout, He didn't even rise, But drew his red band-anner out An' wiped his weepin' eyes."

I've been a sister good and true For five and thiry year, I've done what seemed my part to do, An' prayed my duty clear; But death will stop my voice, I know, For he is on my track, An' some day I to church will go An' never more come back; And when the folks get up to sing, When'er that time shall be, I do not want no patent thing A-squakin' over me. MAY MILLEN, Charing Cross.

A bit of glue dissolved in skim milk and water will restore old crape.

An ink stand was turned over a white table-cloth; a servant threw over it a mixture of salt and pepper plentifully, and all traces of it disappeared.

TO CLEAN LINEN OF MILDEW.

Dissolve two ounces of chloride of lime in two gallons of water, let it settle, and pour off the clear water. Let the linen lie in this a few minutes; then hang in the sun. It will also remove ink spots.

TO STOP BLEEDING AT THE NOSE.

Fold a piece of brown paper and place between the upper lip and gum. M. W. Thistleton, May, 1874.

LOVE LIGHTENS LABOR.

A good wife rose from her bed one morn, And thought with a nervous dread Of the piles of clothes to be washed, and more Than a dozen mouths to be fed. There were the meals to get for the men in the field, And the children to fix away To school, and the milk to be skimmed and churned— And all to be done that day.

It had rained in the night, and all the wood Was wet as wet could be; There were puddings and pies to bake, beside A loaf of cake for tea; And the day was hot and her aching head Throbbled wearily as she said: "If maidens but knew what good wives know, They would be in no haste to wed!"

"Jennie, what do you think I told Ben Brown?" Called the farmer from the well; And a flush crept over his bronzed brow, And his eyes half bashfully fell. "It was this," said he, and coming near, He smiled—and stooping down— Kissed her cheek—" 'Twas this: that you were the best And the dearest wife in town!"

The farmer went to the field, and the wife In a smiling and absent way, Sang snatches of tender little songs She'd not sung for many a day; And the pain in her head was gone, and the clothes Were white as the foam of the sea; Her bread was light, and her butter was sweet, And as golden as it could be.

"Just think," the children all cried in a breath, "Tom Wood has run off to sea! He wouldn't, I know, if he only had As happy a home as we." The night came down and the good wife smiled To herself, as she softly said: "'Tis so sweet to labor for those we love— It's not strange that maidens wed!" LIZZIE ELKINGTON.

Dear Minnie May,—

I was quite interested in reading over that kind and sympathizing letter which was sent to Jennie Jones by our cousin, Mary Kay, and I quite agree with her in trying to cheer up poor Jennie; so I thought perhaps it would not be very much out of place if I should, through the columns of your department, send her a poem which I have in my possession. I would wish to draw her attention more particularly to the third, fourth and fifth stanzas. Your friend, LIZZIE E. Paris, May 26th, 1874.

EGGS IN CASE OF TROUBLE.

The white of an egg is said to be a specific for fish bones sticking in the throat. It is to be swallowed raw, and will carry down a bone easily and certainly. There is another fact touching eggs which it will be well to remember. When corrosive sublimate is swallowed by accident, the white of an egg or two taken, will neutralize the poison, and change the effect to that of a dose of calomel.



Garden Orchard and Forest.

GARDENING OPERATIONS.

Kitchen Garden.

If planted out as advised in former calendars, the crops of broccolis, Brussell's sprouts, savoy, and Scotch kale ought to be strong and vigorous. Where they have been planted between rows of peas and potatoes, fork up the ground between the rows as the crops of the latter are removed. Continue to take up the early crops of potatoes as they complete their growth. Celery in all stages requires an abundant supply of water; give liquid manure and clear water alternately. The earthing-up is only to blanch it ready for use; therefore that operation must not be performed until it is nearly full grown. Running and French beans, broccoli, cauliflowers, and late peas must have a few thorough soakings of water, to help them through this dry weather. Remove dead and decaying leaves from cucumbers and vegetable marrows. Plant out late-sown endive in beds and on warm dry slopes. Plant the largest in beds, to come in first; and the next size on the slopes to follow them later in the winter. They are not likely to suffer from damp when planted on slopes, besides being more easily protected with long straw or straw hurdles; the latter are preferable, because they can be moved about without making a litter. All the endive which is sent to London markets after Christmas is grown on banks facing to the south. The banks are about three feet high, with a sharp incline, and are made at the foot of hedges which divide the field. Half the crop of parsley sown early, and now full-grown, must be cut back, to produce a fresh supply for the winter. The leaves now full-grown will probably turn yellow and be useless after a few sharp frosts. Thin out the late crop, and leave plenty of space for each plant to develop itself, as much larger supplies will be obtained from crowded plants.

Fruit Garden.

Throw nets over fruit-bushes to keep off the birds, and give a little shade to keep a few bunches hanging for a late supply. Put wasp-traps about vines and peaches. Nail in all good shoots on wall-trees, that they may have the heat of the wall to ripen them. Encourage in every possible way the ripening of the wood of the season. If any trees have been allowed to get crowded, thin them a little now to admit the sunshine amongst the well-placed shoots and spurs. Windfalls to be sent into the house every morning for immediate use. Gather fruit in dry weather, and as a rule not till quite ripe. Plant strawberries, or there will be no time for them to get established before winter.

Flower Garden.

Propagate bedding plants for stock. Of geraniums, ripe hard shoots make the best plants. Fuchsias come best from the points of young growing shoots. Strike verbenas and petunias from the points of young shoots. Caeolarias should be struck in good loam and leaf-mould. Herbaceous plants may also be struck in quantities to keep over winter in frames, such as pansies, dicytras, double walls, double Canterbury bells, double feverfew, and hollyhocks. Keep dahlias and hollyhocks well fastened, and put stakes to chrysanthemums before their heads get heavy, as a protection against storms. Pompones may still be struck for blooming in pots. Plant out pinks and carnations in nursery beds, in well-manured loam. Give plenty of water to chrysanthemums, with occasional doses of strong liquid manure. Look over your bins and heaps of compost with a view to replenish for autumn potting, as there will soon be a heavy demand for that purpose. Pansies may be sown, as may also most hardy annuals, to stand over winter for early blooming next spring; the latter should be sown thick, on poor, dry, hard ground, to induce a stubby and hard growth. Some seed should be saved for a second sowing in September, as, in the event of protracted warm weather, such as we had last year, some of the first sown may bloom this season.

POTATO DISEASE.

The South Eastern Gazette states that the potato disease has made its appearance in the neighborhood of Rochester and Chatham, during the last few days, and is fast spreading. The late heavy rains are believed to

have some connection with the reappearance of the disease. "Rusticus," writing to the Times, gives the following remedy for the disease:—"The best known remedy is to cut off the haulm close to the ground as soon as it shows symptoms of attack. By this means you preserve the tubers sound, though they will not increase in size after; but they will ripen perfectly, which process commences immediately upon being deprived of the haulm. The above is not my own experience only, but also that of one of our greatest horticulturists."

PHYLLOXERA, OR GRAPE ROOT LOUSE.

At the September meeting of the Philadelphia Academy of Natural Sciences, among the distinguished visitors present were Prof. C. V. Riley of St. Louis, and Dr. J. E. Planchon, professor of botany at Montpellier in France, the latter of whom is now in this country under authority of the French Government, to investigate our grape diseases. By invitation of the President, Dr. Ruschenberger, Prof. Riley gave an account of the Phylloxera or grape vine root-louse, with his most recent discoveries in regard to the same. He had little doubt but the insect was at the root of most diseases that attack the grape in this country, as it was certainly in Europe. Prof. Riley inquired of Mr. Riley the true position of the insect in scientific classification; Prof. Riley replied that it was not yet well settled. Its appearance brought it somewhere near the aphides; but it did not have successive broods from one impregnation; aphides did. In this respect it approaches coecus. He thought it between the two families.

Prof. Planchon described the ravages of the insect on the grape roots in France, and thought them less destructive on the roots of American species of grapes than the European; and one of the objects of his mission was to ascertain the fact definitely, so that in Europe some American vines might be used as stocks for their vine-yards.

It was clear from the fact that the European vines had been but recently attacked by it, and had suffered so severe from it; while in America the home of the insect—the wild vines had done so tolerably well for so many ages, that the vitis vinefera with it was more of a favorite. He excused himself from any lengthy remarks on account of his limited English, and would briefly say, that he agreed entirely with Prof. Riley's views regarding it.

Mr. Thomas Meehan gave a history of grape culture and grape diseases in Pennsylvania from the earliest time to the present, and showed that the failures had never been satisfactorily explained on any theory sometimes given, such as change of climate, or depletion of the soil. There were always some facts or figures which rendered every previous theory inadmissible to his mind, as he had frequently stated in other places. Prof. Riley's insect discovery, however, met all the requirements of the case, so as to give an air of possibility to Mr. Riley's views, such as no other theory has possessed. That when we saw the foreign grape and others which often did perfectly well for years in one locality, and then failed, it seemed absurd to suppose that the climate or soil suddenly gave out; but a sudden incursion of a brood of root-insects was a cause that could have such a sudden effect.

Dr. Joseph Carson gave an account of vines in a city garden, doing well for several years, and then suddenly failing, while climate changes must have remained unchanged. He was satisfied, from many circumstances, that failure, whatever it was, proceeded in the first place through imperfect roots.—Gardener's Monthly.

CIRCULATION OF SAP.

As many of our farmers are just out of the sugar-bush the following will be interesting to them;

President Clark, of the Massachusetts College, has been experimenting on the circulation of sap, and the facts he noted have recently been made public. The sugar maple (Acer saccharinum) was taken for his experiments. It is well known now that the sap of plants is not at rest in the winter, but that moisture is absorbed continually, even the roots are thoroughly encased by frost. They probably thaw the icy matter by the aid of their natural heat, or in accordance with Mohr's theory, there are particles of vapor in the soil so finely divided that they do not freeze, except under a very low temperature; and hence the roots can avail themselves of this matter without any thawing process being required. At any rate, the absorption goes on all winter, and greater towards spring. The sugar maple becomes "tapped," or bored into, the sap oozes out, and is caught in vessels and boiled for sugar, which is left on evaporation.

Professor Clark finds that there is an average increase in quantity from its first flow till a maximum period is reached, and then there is an average decline. But there are interruptions from day to day, sometimes more, sometimes less; and what is the cause or causes of these fluctuations is, was his purpose to find. It is remarkable that steady cold or steady warm weather had the effect of lessening the flow, while the greatest amount of sap ran when there was warm days and cold nights. The whole stem structure—is filled with the rising sap; but the north side of a tree gives out more, and continues two weeks after the south side is dry. This accords with Risler's recent experiments, which show that direct sun-light is a leading agent in evaporation; and thus on the south side evaporation will be greater than on the north, and there would be less left for the "tap." The quantity of sap flowing from different heights of the trunk was tested, and at twenty feet the greatest quantity was given out. Of course trees will vary in quantity given health and other peculiarities; but the average yield in an average size maple forest is sixty pounds of sap per tree, while as much as 1,400 pounds has been reported from one tree at Leverett. It does not appear that the tree suffers in the least from so heavy a drain on it. A very interesting phrase of the experiments refers to the pressure of the following sap. On the 11th of April it was the greatest, and was equal to sustaining a volume of water nearly thirty two feet high.

THE CURCULIO.

Mr. Dennis Melcher, a very intelligent farmer, west of Burlington, Iowa, recently informed President Brackett, of the Iowa Horticultural Society, that, having seen a paragraph going the rounds of the papers a year ago, to the effect that corn cobs, soaked in molasses thinned a little in water, and hung in plum trees, would prevent attacks from the curculio, he resolved to give it a thorough trial, and accordingly hung upwards of 50 cobs thus prepared in each of several trees, omitting some, that the effect might be observed.

Mr. Melcher declares that the experiment was completely successful, and that trees thus ornamented were loaded with plums, while the others were stripped, as usual. He further says that the tree having cobs hung on the lower branches bore the most fruit, and that the cobs were filled with white worms, who seemed to prefer them to the fruit. His theory is that the pests ascend directly into the tree after emerging from the ground, and that, if plenty of cobs are furnished them on the lower limbs they will go no further or higher up.

I remember that at the time this item was inserted in the papers, Mr. Riley undertook to ridicule it, as at variance with all the known habits of the insect. A trial was made in various places, but by none that I—know of who made it as thoroughly as Mr. Melcher. He gives the results of only one year's trial, being entirely satisfactory, and with his experience to guide us so cheap an expedient is certainly worth full and exhaustive trial all over the country.

This mortal enemy of that splendid fruit, the plum, finds so congenial a home in our prairie soils, that even the laborious and long-continued system of haking trees, as recommended by most horticulturists, fails to dislodge him, besides seriously injuring the trees in many cases, where careless laborers have to be employed to do this task. Very many fruit growers have consequently abandoned the plum altogether.—Prairie Farmer.

VARIETIES OF POTATOES TRIED BY AN ENGLISH FARMER.

At the meeting of the Midland Farmers' Club, Mr. Farndell said he had tried some 135 varieties of potatoes last year, and out of those he had selected 22 as the best sorts to be grown in the midland counties. Those for early cropping were three of the Ash-leaf varieties, Early Rose, Early Shaw, Giant King, and Breese's King of the Earlies. For second early crop, Jackson's Early White Kidney, Manning's Kidney, Dawe's Matchless, Breese's Prolific, Peerless and Climax, Early Don, Drummond's Prolific, Gryffe Castle, Dalmahoy. For late crop, Pater-son's Victoria, Snowball, Red Skin Flour Ball, Walker's Improved Regent, Old Dumber Regent. There was scarcely any disease at all in those he selected. His own experience of potato growing was in favor of lightly plowed land, shallow planting and well earthing the rows.

In this list we see Breese's four choice varieties, and the Early Rose, a strong argu-

ment in favor of the advantages of the interchange of agricultural seeds between different and distant countries. Those four varieties had been introduced here by the Agricultural Emporium, and this season we have imported from England the Flour Ball. Of this variety Mr. Wise, an eminent English agriculturist, says: "With regard to the Flour Ball, he considered it was the very best potato grown."

APPLE GROWING IN NEW YORK.

The same authority says: "Occasionally the apple crops of the western or lake counties of New York bring the owners large sums of money. Lying within the limits of Niagara county, and bordering on Lake Ontario, are 30,000 acres of land, all suitable for orchard purposes.—The breezes from the lake keep up a steady temperature, cool in summer, and far from severely cold in winter, affording a climatic temperature of uniform degree. The orchards are uniformly well cultivated, and the apples are nearly always large, fair and in excellent demand. The varieties most popular are Baldwin, Rhode Island Greening, and Roxbury Russet. From one orchard of 19 acres, there were sold \$7,230 worth of apples; from another orchard of 140 Baldwin trees, there were sold 980 bbls. for \$3 25 per bbl."

To the north of the lakes and river the country is at least as good for the production of fruit. The neighborhood of St. Catharines, Grimsby, Niagara and that whole section is famed for its fruit; indeed the whole of Ontario produces food abundant in quantity and excellent in quality. The Canadian fruit growers bore off some of the most valuable prizes at the great American Fruit Exhibition last season, and every year large quantities of our apples are shipped to the United States, as much superior to those raised south of the line.—S.

HUNGARIAN GRASS.

The great value of Hungarian Grass seems to be as yet but partially known. Mr. T. of London township, last season saved over three tons of excellent hay from less than half an acre of ground. This season he has sown two acres. His stock, he says, prefer it to any other hay. He is careful to cut it when the seed is formed, but not ripe, as it, at this state of its growth, contains all its nutritive properties. His last year's crop of this grass was four feet high and very thick, as he sowed an abundance of seed lest the stems might grow too coarse.

In the London market, and indeed, throughout the Province, hay was sold at very high prices, owing to its scarcity. The same complaints reach us from Nova Scotia and the other provinces. Were farmers to sow more of their land with Hungarian Grass, it would help to meet this demand.

THE POTATO BUG.

The Oshawa Indicator says that a downtown gardener, by way of experiment, powdered his potato plants, which were covered with potato bugs, with common chimney soot. He was agreeably surprised to find that it killed every bug on the vine. If this is verified by other experiments, it will be good news for those who have a small potato ground and lots of bugs and soot.

Many of our readers have become tired and discouraged in trying to grow good cabbage. No sooner have the plants outgrown the attacks of the black flea, than a more destructive and dis-usting pest comes in the shape of a green worm, which penetrates to the very heart of the cabbage. We believe the best mixture yet known to destroy them is made of 20 parts super-phosphate, 3 parts air-slaked lime, 1 part carbolic powder.—These three, mixed together and dusted over the heads, check the voracious habits of the green worms on cabbages better than any other remedy tried. As this compound acts as a fertilizer to the growing cabbage as well as a preventive against the insects, it may be used say once a week, and quite freely, while there are any worms on the cabbages. Rich ground, strong plants and good culture are the best means of keeping off lice from cabbage. There is no reliable remedy that we know better than those named.—Ex.

The Ontario Peat Company, said to have a capital of \$400,000, intends to commence operations on the Welland Canal peat beds at once.

Beware of...

The Horticulturist... A mistake by many, that shrubs, and the wood mould, from some of it for the new tree has ever been recommended. chip manure mainly from fungi, which a little moist formed, it is totally prevented the tree or shrub.

We learn... "there has been a look from all fruit crops, a most bountiful is admitted."

A. C. Successor to the... of J. H. A. cash, or exchange.

PURE IT.

Furnished as... will be taken bred from im... Price List f... dress

GEO. E.

LON.

Purchasers... estate. APP.

AL

CARRIAGE... Wellington S... 9

CANADA

Established... Stock 2 1/2 Mi... per week. S... \$300,000 have... deceased pol... Company. T... tages offered... Management... doubted Sec... Widows and... Policies indiv... issued on wit... of the profits... or exchanged... may be paid... 30 days of gr... miums. T... assurance in... offices or age... Secretary. J... Hamilton.

G.

Manuf...

1-tf

JAMES D... Maker, C... London, On

AGRICU...

GU

Manufactures... CANADIA... PA... LITTLE... ONE HORSE... ONE HO

The atten... his superior... of iron, sow... an endless c... fore is not li... raising a lev... time, thus p... ing at the en... carefully att

4 tf

GREAT S... Whole w... ains at the



**BEWARE OF PLANTING TREES OR SHRUBS IN VEGETABLE MANURE.**

The Horticulturist gives this timely caution to planters of trees and shrubs:

"A mistaken opinion seems to be entertained by many, that any manure will do for trees and shrubs, and the amateur planter, thinking that wood mould, chip manure and decaying sods from some cesspool will prove desirable, at once uses it freely in filling up the holes dug for the new trees. Perhaps no greater injury has ever been done in horticulture than the recommendation by inexperienced writers of chip manure as a dressing. Its danger rises mainly from its ready disposition to spread fungi, which inevitably rises in soils naturally a little moist and tenacious. And when once formed, it spreads with astonishing rapidity, totally preventing growth and finally killing the tree or shrub."

**FRUIT PROSPECTS.**

We learn from the Horticulturist that "there has never been so cheering an outlook from all parts of the United States for fruit crops, as this year. We may expect a most bountiful season, and even for grain it is admitted to be the most promising year."

**A. C. ATWOOD,**

Successor to the Entire Bee Business and Territory of J. H. THOMAS. Territory sold cheap for cash, or exchanged for bees.

PURE ITALIAN QUEENS, HIVES AND EXTRACTORS

Furnished as usual, or for which 100 stocks of bees will be taken in exchange. My Queens are all bred from imported mothers. Price List free. All orders filled promptly. Address A. C. ATWOOD, London City or Vanneck P. O., Ont.

**GEO. B. HARRIS & CO.,**  
LAND OFFICE,  
LONDON, ONTARIO

Purchasers obtained for farms and other real estate. Apply by letter or personally.

**ABBOTT BROS.,**

CARRIAGE BUILDERS Dundas Street, East of Wellington Street, LONDON, ONTARIO

**CANADA LIFE ASSURANCE COMPANY.**—Established 1847. Assets including Capital Stock 2 1/2 Millions. Cash Income about \$10,000 per week. Sums assured over \$11,000,000. Over \$900,000 have been paid to the representatives of deceased policy holders since the formation of the Company. The following are among the advantages offered:—Low rates of Premium; Canadian Management and Canadian Investments; Undoubted Security; Policies absolutely secured to Widows and Children; Policies non-forfeitable; Policies indisputable after 5 years in force; Policies issued on with profit system receive three-fourths of the profits of the Company; Policies purchased or exchanged or loans granted thereon. Premiums may be paid yearly, half-yearly or quarterly, and 30 days of grace allowed for payments of all premiums. Tables of rates for the various systems of assurance may be obtained at any of the Company's offices or agencies. A. G. RAMSAY, Manager and Secretary. R. HILLS, Assistant Secretary. Hamilton, July 3, 1873.

**G. MOORHEAD,**

WHOLESALE AND RETAIL

Manufacturer of Furniture, UPHOLSTERER, &c.

1-tf King Street, London

**JAMES DUNN, SADDLE AND HARNESS**  
Maker, Corner of King and Talbot Street, London, Ont. 3-41

**COSSITT'S**

**Agricultural Implement Works**  
GUELPH - - ONT.

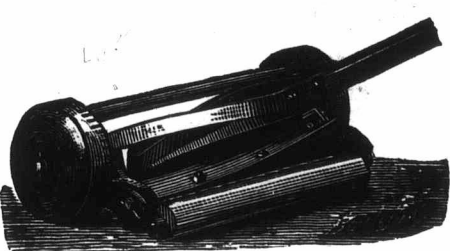
Manufactures all kinds of Agricultural Implements—  
CANADIAN SIFTER FANNING MILLS,  
PARIS STRAW CUTTERS,  
LITTLE GIANT STRAW CUTTERS,  
ONE HORSE SEED DRILLS, HAND SEED DRILLS,  
ONE HORSE PLOUGHS, TURNIP CUTTERS,  
&c., &c.

The attention of farmers and others is called to his superior HORSE TURNIP SEED DRILL, all of iron, sows two rows, and runs the canister with an endless chain instead of friction wheels, there fore is not liable to slip and miss sowing; and by raising a lever the sowing can be stopped at any time, thus preventing the waste of seed when turning at the end of drills. Orders from a distance carefully attended to and satisfaction guaranteed.

LEVI COSSITT,  
4 tf Nelson Crescent, Guelph.

**GREAT SALE AT CHISHOLM & CO'S.**—Whole winter stock reduced. Now for Barains at the Striking Clock.

**LAWN MOWING MACHINES!**



I AM NOW PREPARED TO SUPPLY LAWN Mowing Machines of the best quality, manufactured by myself equal to any imported machines, and much cheaper. The trade supplied.

Address **LEVI COSSITT,**  
Agricultural Works, GUELPH.

Samples may be seen and orders taken at the Agricultural Emporium, London.

**MOLSONS BANK.**

THE LONDON BRANCH OF MOLSONS BANK,  
1 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.

**SAVINGS BANK DEPARTMENT**

Affords opportunity for safe and remunerative investments of accumulative savings.

**JOSEPH JEFFERY,**

Manager  
London, Sept. 14, 1870.

**THE FARMER'S ADVOCATE.**

Published by WILLIAM WELD, London, Ont., Canada. The leading agricultural paper of the Dominion. Subscription, \$1 per annum in advance; \$1.25 and all expenses of collecting, in arrears.

ADVERTISING RATES.—The regular rate for ordinary advertisements is twenty cents per line of solid nonpareil for each insertion. Special editorial Notices, 50 cents per line. Condensed advertisements of farm for sale, farm wanted, and stock (single animal) for sale, or wanted, or township show notice, when not exceeding 20 words, will be set for twenty-five cents each, prepaid. One cent and one-half will be charged for each additional word over twenty. These condensed advertisements are arranged under special headings. None others except the four classes mentioned above will be inserted at these rates.

**WILSON & HASKETT,**

PRODUCE DEALERS AND COMMISSION MERCHANTS, OFFICE—Corner of King and Oxford Streets, INGERSOLL, Ont.  
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

**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.

**GETTING UP CLUBS.**

Great Saving to Consumers.

PARTIES inquire how to get up CLUBS. Our answer is—You should send for Price List, and a Club Form will accompany it, with full directions, making a large saving to consumers and remunerating to Club organizers. Send for it at once, to

**MILLER'S GREAT TEA WAREHOUSE,**  
52 and 54, Front Street East, Toronto, Ontario.  
Local Agents Wanted.  
Toronto, April 26, 1872. 5-tf

**MANVILLE & BROWN,**

AUCTIONEERS,

Real Estate Agents & Commission Merchants,  
144, Dundas Street East, London, Ontario. Sales in town and country promptly attended to. Advances made on consignments. 5-6t

**J. NATTRASS,**  
ACCOUNTANT, INSURANCE, HOUSE, REAL ESTATE & OCEAN STEAMSHIP AGENT.

Lands for sale, rents collected, deeds and mortgages prepared. Office, Richmond Street, north of King Street. 3-ly

**FOR SALE.**—400 acres of land, 150 cleared; five miles from a station on the Canada Southern, in an excellent locality; good land; Price, \$12,000. For particulars apply at this office.

**SHORT Horn Bull for Sale,** 12 months old; Color, Roan; Pedigree furnished on application. Address G. J., care of this office.

**ST. JAMES' PARK NURSERIES**

LONDON - - - ONTARIO.

**PONTHEY & TAYLOR**

OFFER A FULL ASSORTMENT OF

Fruit and Ornamental Trees, Vines, Shrubs, Roses, &c.,

Comprising all that is New and Desirable in the Separate Departments.

Send for a Descriptive Catalogue.

P. O. Address—ST. JAMES' PARK.

3-tf



**THE DAY RAKE**

IS OFFERED IN ENTIRE CONFIDENCE TO FARMERS AND DEALERS IN THE DEPARTMENT of Agricultural Implements. It is inferior to none as a labor-saving implement. It is operated with ease by a lad 12 or 14 years old. This Rake is the result of steady and repeated experiments. They are manufactured from good material and are well finished, being nicely painted, striped and varnished.

**The Advantages Claimed for the Day Rake, are**

- 1st—The teeth are supported at a greater distance from the head or place of fastening, which is desirable.
- 2nd—The head is so attached that it permits the teeth to drop below the level of the bottom of the wheels.
- 3rd—The operator can raise the teeth eight inches above the winrow in discharging the hay.
- 4th—It will rake a larger winrow than any other Rake now made.
- 5th—The operator has perfect control of the teeth, to make them pass lightly over the ground or press them down to gather heavy hay.
- 6th—The wheels running upon an elevation will not raise the teeth from the ground.
- 7th—The teeth are so shaped and attached that they do not scratch or harrow the ground like most Steel Tooth Rakes.
- 8th—It is easier worked than any other Rake.
- 9th—The hay will not run out at the ends of Rake.
- 10th—It can be used to good advantage for spreading hay.
- 11th—The seat can be raised or lowered, to suit size of person operating.

Agents Wanted. Send for Price List, &c.

All orders addressed to the undersigned at Brantford will be promptly attended to.

**A. HOWELL,**

MANUFACTURER BRANTFORD



CONTENTS OF JULY NUMBER.

**EDITORIAL:**  
 Dominion Grange, Patrons of Husbandry, 97; Fall or Winter Wheat, 97; Orchard, Garden and Forest, 97; Growth of the Oatmeal Trade, 98; Patent Rights, 98; Trip to England, 98; Agricultural College, 99; Wheat, 99; Millet for Winter Feed, 99; Monthly Cattle Fairs, 99.

**POULTRY YARD:**  
 Roup, 99; Variety and Species in Poultry, 99; Crop Bound, 99; Pips in Chickens, 99; Cankered Throat or Diphtheria, 99.

**CORRESPONDENCE:**  
 Ashes for Manure, 99.  
 Small vs. Large Milkers, 100; Vineland—Grapes and Wine, 100.

**PATRONS OF HUSBANDRY, 100.**  
 Council of Agricultural and Arts Association, 101; The Kelso Farmers' Club, England, 101.

**THE APIARY:**  
 Queries, 101; Some Facts About Bees, &c., 101.

**STOCK & DAIRY:**  
 Color for Butter, 102; Early Maternity and Treatment of Cows, 102; Irish Heifer Beef, 102; Marketing Cattle, 102; To Sweeten Butter Firkins, 102; Hemp Seed to Prevent Abortion, 102; Cheese Factories in Canada, 102; Making Sheep Profitable, 102.

**THE HORSE:**  
 Breeding Horses for Farm Work, 103; Advance in Horses, 103; Bravo, Canada, 103.

**AGRICULTURAL NOTES, Original and Selected:**  
 Potatoes and the Potato Beetle, 103; The Dangers of Paris Green, 103; Crops, 103; Paris Green and Canker Worms, 103; Value of Soot, 103.  
 English Scenes (3 illustrations), 104; Healing Power of Glue, 104; Exportation of Canadian Fresh Meat, 104; Corn Crop of the United States, 104; Horticultural Notes, 104; Sulphate of Iron or Copperas, 104; The Application of Manure, 105; The Weather and the Crops, 105; Value of Wheat Meal, 105; Pinching the Vines of Melons, 105.

**AGRICULTURAL:**  
 Heavy Oats, 106; Sanfoin and Clover, 106; Hay-Making, 107; Stocking Down Impoverished Land, 107; Utilizing Waste Organic Material, 107; The Foreign Wheat Reports, 107; Farmers' Club, 107; About Hay, &c., 107.

**UNCLE TOM'S COLUMN, 108.**  
**MIRNIE MAY'S DEPARTMENT, 109.**

**GARDEN, ORCHARD & FOREST:**  
 Gardening Operations, 110; Potato Disease, 110; Phylloxera or Grape Root Louse, 110; Circulation of Sap, 110; The Curculio, 110; Apple Growing in New York, 110; Hungarian Grass, &c., 110.  
 Advertisements, 111, 112.

MARKETS.

**London Markets.**  
 London, Friday, June 19, 1874.  
 The offerings on the Market to-day were small—principally confined to a few loads of grain, hay, and about 2,500 to 3,000 lbs. of wool; the feeling in this latter commodity was hardly as firm; 37c. to 39½c. was paid, the last named quotation only once. In grain no change.

Eastern and English markets as follows:  
 English quotations showed a rise of 2d on red wheat to-day. Montreal was quiet but firm. The West was firm and advanced about 1c. New York showed a rise of 1c. to 2c., No. 2 Chicago selling at \$1.41 to \$1.42.

**Stratford Cheese Market.**  
 Stratford, June 17, 1874.  
 The offerings were 5,784 boxes of June, and 441 boxes of May; 4,024 boxes were sold at 11½c to 11½c.

**New York Markets.**  
 New York, June 19, 1874.  
 Flour: market a shade firmer and fair business reported; receipts, 12,000 bbls.; sales, 14,000 bbls. at \$4.70 to \$5.00 for superfine state and western; \$5.90 to \$6.50 common to good extra state; \$5.65 to \$6.50 common to choice extra western.  
 Rye flour steady and in fair demand.  
 Wheat: the market to-day is firmer; receipts, 1,435 bush.; sales, 52,000 bushels, at \$1.43 to \$1.44 for No. 2 Chicago; \$1.48 for No. 2 Milwaukee; \$1.35 to \$1.51 for No. 1 spring.  
 Rye quiet.  
 Corn market more steady; receipts, 78,000 bushels; sales, 45,000 bushels at 80c. to 82c. new and old western mixed.  
 Barley nominally unchanged.  
 Oats heavy; receipts, 72,000 bush.; sales, 20,000 bushels, at 60c. to 61c. for new western mixed; 67c. to 69c. white do.  
 Butter, 20c. to 30c.  
 Cheese, 12c. to 14½c.

**Montreal Markets.**  
 Montreal, June 22nd, 1874.  
 FLOUR—Receipts, 5,100 bbls. Market firm; the advanced views of holders checks business; we quote spring extras at \$5.60 to \$6.70; extras about \$6.10; superior, \$6.40 to \$6.50, with limited transactions.  
 GRAIN—Wheat steady, 16,000 bushels No. 2 Milwaukee to arrive. Sold at \$1.30 aboat.  
 FEABE—98c. to \$1.00 per 60 pounds.

FAIRBANKS' STANDARD SCALES.

The rapidly increasing demand for them FROM ALL PARTS OF THE WORLD Is the best proof of their Undoubted Superiority.

BUY ONLY THE GENUINE.

FAIRBANKS & COMP'Y  
 403 ST. PAUL STREET.  
 MONTREAL. 7-1t

FRUIT AND ORNAMENTAL TREES!  
 LARGE STOCK. LOW RATES.  
 STANDARD PEAR TREES A SPECIALTY.  
 AGENTS WANTED. Address  
 E. MOODY & SONS, Lockport, N. Y.  
 NIAGARA NURSERIES, established 1839. 7-3t

FELIX CRAMER,  
 DESIGNER AND ENGRAVER ON WOOD AND METAL, 626 Craig [opposite St. George Street] MONTREAL.  
 All kinds of engraving on wood and metal, plain or in colors, done in a superior style at reasonable prices. 7-1y

J. H. WILSON,  
 VETERINARY SURGEON,  
 Graduate of the Toronto Veterinary College.  
 Office—New Arcade, between Dundas street and Market Square. Residence—Richmond street, opposite the old Nursery.

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. m-y

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.

Cards inserted in this list for one dollar a line per year if paid in advance; \$1.50 if in arrears.

BREEDERS DIRECTORY.

- R. S. O'NEIL, breeder of Lincoln and Leicester Sheep and Short Horn Cattle. Birr P. O. 1y
- J. S. SMITH, McGillivray, Breeder of Leicester Sheep and Durham Cattle, Ailsa Craig.
- G. WELDRICK, Thornhill, Breeder of Cotswold Sheep. 11-u
- GEO. JARDINE, Hamilton, Importer and Breeder of Ayrshire Cattle and Leicester Sheep. 11
- J. BILLINGER, Richmond Hill, Ont., dealer in Canadian Bred Stockions. Best prices given for good Horses, and some first-class Horses for sale. 8-tf
- H. E. IRVING, Hamilton, Breeder of Galloway Cattle, Southdown and Leicester Sheep and Berkshire Pigs. 8
- N. BETHELL, Thorold, Ont., Breeder of Short Horns, Berkshire and Yorkshire Pigs, Southdown and Leicester Sheep. 8
- DAWS & CO, Lachine, P. Q., Importers and Breeder of Ayrshire Cattle. 8-ly
- J. PINKHAM, Westminister, Breeder of Devon cattle. 9
- WALTER RAIKES, Barrie, P. O., Breeder of Short Horns and Berkshire Pigs. 72-1-y
- JOHN CRAWFORD, Malvern P. O., Breeder of Heavy Draught Horses and Cotswold Sheep. 1-y
- RICHARD RUNELSON, Galt, Breeder of Cotswold, Leicester, and Southdown Sheep.
- W. LANG, St. Mary's, Breeder of Short Horns and Berkshire Pigs. 1y
- A. PARK, Ingersoll, breeder of Ayrshire cattle.
- J. FEATHERSTONE, Credit, breeder of Essex, Suffolk, and Yorkshire Pigs, and Cotswold Sheep.
- GEORGE MILLER, Importer and Breeder of Short Horn Cattle, Cotswold & Leicester Sheep, and Berkshire Swine, Markham P. O. 12
- JAMES LAWRIE, Malvern P. O., Importer and Breeder of Ayrshire Cattle, Clydesdale Horses, Berkshire Pigs, and Leicester Sheep. 11-ly
- GEORGE G. MANN, Bowmanville, Importer and breeder of Thorough-bred Devon Cattle. 11-ly
- JOHN SCOTT, Coldstream, Breeder of Leicester Sheep and Short-Horn Cattle. 11-ly
- THOS IRVINE, Logans Farm, Montreal Breeder of Ayrshire Cattle, Clydesdale Horses, Yorkshire and Berkshire Pigs, and Leicester Sheep. 11-ly
- BRODIE, SON & CONVERSE, Breeders of Yorkshire Pigs and Ayrshire Cattle. Address Jas. Brodie, Rural Hill, Jeff. Co., N. Y.; J. F. Converse, Woodville, Jeff. Co., N. Y.; Hugh Brodie, Belleville, Ont. 11-ly
- W. HOOD, Guelph, Breeder of Galloway Cattle. 11-ly.
- J. MILLER, Thistle-"ha," Brougham P. O., Breeder of Short-Horns, Cotswold Sheep, improved Berkshire Pigs and Clydesdale Horses. 11-ly.
- R. LEAN, Coldsprings, Breeder of Leicester Sheep and Berkshire Pigs. 11-ly
- G. MORTON, Morton P. O., Breeder of Ayrshire Cattle. 11-ly.
- JOHN SNELL & SONS, Edmonton, Breeders of Short-Horn Cattle, Leicester and Cotswold Sheep, and improved Berkshire Pigs. Winner of the Prince of Wales prize for the best Bull and five of his Calves at Provincial Exhibition, Kingston 1871. 11-tf.
- F. W. STONE, Morton Lodge Guelph, Importer and Breeder of Short-Horn and Hereford Cattle, Cotswold and Southdown Sheep, and Berkshire and Yorkshire Pigs and Suffolk Horses. 11-tf
- JAMES COWAN CLOCKMOER, Galt P. O. Breeder of Short-Horns Leicester Sheep and Essex Pigs. 71-10
- J. R. HUNTER, Alma, Breeder and Importer of Short-Horn Cattle. 11-7

FOR SALE—Imported and Thoroughbred AYRSHIRE STOCK Catalogues furnished on application. S. N. WHITNEY, Montreal, P. Q., Canada.

THREE YEAR OLD AYRSHIRE BULL FOR SALE. Apply at this office.

JOHN EDDY, Granton P. O., Biddulph Township Breeder of Lincoln, Leicester and Cotswold Sheep.

WM. ASH, Breeder of pure Leicester and South Down Sheep, and Durham Cattle, Thorold. 2-y

THOS. GUY, Sydenham Farm, Oshawa, Breeder of Ayrshire and Devon Cattle. 72-3-y

PETER COOK, Thorold, Ont., Breeder of Durham Cattle.

EDW. JEFFS, Bond Head, Breeder of Short Horns, Leicester Sheep, Berkshire and Chester White Pigs. 72-3-y

JOHN BELLWOOD, Newcastle, Ontario, Canada, Breeder of Short Horn Cattle, Clydesdale Horses, Cotswold Sheep and Berkshire Pigs—Young Bulls and Heifers for sale. 3-1y

SHORT HORNS, Ayrshires and Berkshire Pigs The subscriber offers a few choice animals of the BEST BREEDS, male and female, from IMPORTED STOCK of the most approved strains. Catalogues on application. M. H. COCHRANE, Compton, P. Q. Canada. 8

M. & A. A. McARTHUR, Lobo, Breeders of Leicester Sheep.

P. GRANT & SONS, Breeders of Lincoln Sheep Hamilton, Ont.

JAMES SHERLOCK, Breeder of Berkshire pigs; a thoroughbred Berkshire boar for service. Thamesford P. O. 3-1y

JAMES NIMMO, Camden East, Breeder of Ayrshire and Durham Cattle and Berkshire Pigs. 3-1y

J. & P. BROOKS, Whalen P. O., Breeders of Leicester sheep. Carried off the prizes at Guelph and London in 1873. 3-1y

JOHN DARLING, Importer and Breeder of Lincoln and Leicester Sheep, McGillivray, Brinsley P. O., Ont. 7-1y

ANIMALS FOR SALE.

SHORT HORN BULL FOR SALE. Aged 1 y 0 For particulars apply to G. JARVIS, Byron.

SHORT HORNS FOR SALE—A few young D bulls; also a few Cows and Heifers—good ones—good pedigrees, good color, mostly red.—Come and see, or address for particulars—SETH HEACOCK. 3-tf Oakland Farm, Kettleby P. O., Ont

SHORT-HORN BULL CALF, 11 MONTHS OLD—VERY FINE. Address THOS. FULLCHER, St. Thomas, Ont.

DURHAM BULL FOR SALE.—Nearly 2 years old, gold roan, just fit for a limited number of cows. Pedigree furnished. Apply to G. Jarvis Byron. Terms moderate.

LANDS FOR SALE COLUMN.

Condensed Advertisements of Farm for Sale Farm Wanted, and Stock (single animal) for Sale or Wanted, or Township Show Notice, when not exceeding 20 words will be inserted for TWENTY-FIVE CENTS EACH, PREPAID. One cent and one-half will be charged for each additional word over 20. These condensed advertisements are arranged under special headings. None others except the four classes mentioned above, will be inserted at these rates.

FOR SALE.

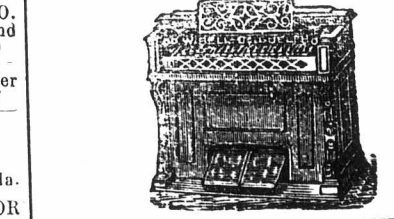
100 ACRES OF LAND, LOT 6, CON. 16, London Township, 70 acres cleared, 30 acres good timber; 15 miles from London, 1 mile from a gravel road, 3 miles from Granton Station. Soil clay loam, well fenced, well watered, good frame buildings. A first-rate farm. Price \$5,000. Good Young Orchard 19 miles from St. Mary's. Address WM. TAYLOR, GRANTON. 5-2t

FOR SALE.

LOT 37, Concession A, Township of Sydenham; 1 1/2 137 acres; 40 cleared. Excellent wheat land. Good frame house, barn and stable. Price—\$2800 dollars. Proprietor, WILLIAM GIBSON, LEITH P. O. 7-1t

FOR SALE:

ONE OF THE BEST FARMS IN THE COUNTY OF KENT—Being Lot No. 15, 1st Concession, Township of Howard, containing 205 acres. 170 cleared, and the balance well timbered. There are on the farm a Log House and two Frame Barns, 36 x 56 and 36 x 60. Two orchards of choice fruit, one in full bearing, the other young. A spring creek runs the entire length of the clearing. The farm fronts on the river Thames, and is within half a mile of the Thamesville Station. G. W. R. R. For particulars apply to WM. WELD, London, or to JOSHUA MINSHALL, on the premises.



W. BELL & CO. GUELPH, ONT.—PRIZE MEDAL Cabinet Organs and Melodeons. Sole Proprietors and Manufacturers of "The Organette," containing Scribner's Patent Qualifying Tubes. Awarded the only medal ever given to makers of Reed Instruments at Provincial Exhibitions, besides Diplomas and First Prizes at other Exhibitions too numerous to specify. Caution.—As we have purchased the sole right of manufacturing Scribner's Patent Qualifying Tubes for the Dominion of Canada, we hereby caution all parties from purchasing them elsewhere, as they will be liable to prosecution. We have copyrighted the name of the "Organette" for our instruments containing this wonderful improvement. Any manufacturer infringing on this copyright will be prosecuted. Illustrated Catalogues furnished by addressing W. BELL & CO., GUELPH. A. S. Wheaton, Agent, 107, Dundas St., London.

COTTON YARN.

WHITE, BLUE, RED and ORANGE. Warranted the very best quality. None genuine without our label. Also, BEAM WARPS for Woolen Mills. WM. PARKS & CO., New Brunswick Cotton Mills, St. John, N. B. 4 tf

VOL. IX  
 August 1st  
 the farmer,  
 favorable so  
 part of the  
 before Lam  
 mouth was  
 ology), and  
 well estim  
 market, an  
 ing the sea  
 The oat  
 our attent  
 cut it in pr  
 readers ma  
 lowing oat  
 tails a gra  
 danger of a  
 bright col  
 miller or  
 not bring  
 over-ripe o  
 pounds of  
 quality as  
 straw for  
 if very rip  
 all its nut  
 On the  
 grain will  
 sequently  
 formed, ne  
 as dough,  
 very profit  
 market, w  
 vince has  
 it is an ex  
 saved, wil  
 mangolds  
 condition  
 them.  
 Before  
 in the she  
 or other g  
 tend to so  
 farm. I  
 seed wher  
 the crush  
 the mach  
 causes of  
 the soil v  
 mind, as  
 duce grai  
 seed whe  
 and pure  
 may cost  
 Look to  
 and sow  
 Let not  
 where the  
 labor in e  
 Weeds  
 througha  
 solely cau  
 fences—l  
 quented s  
 cant spot