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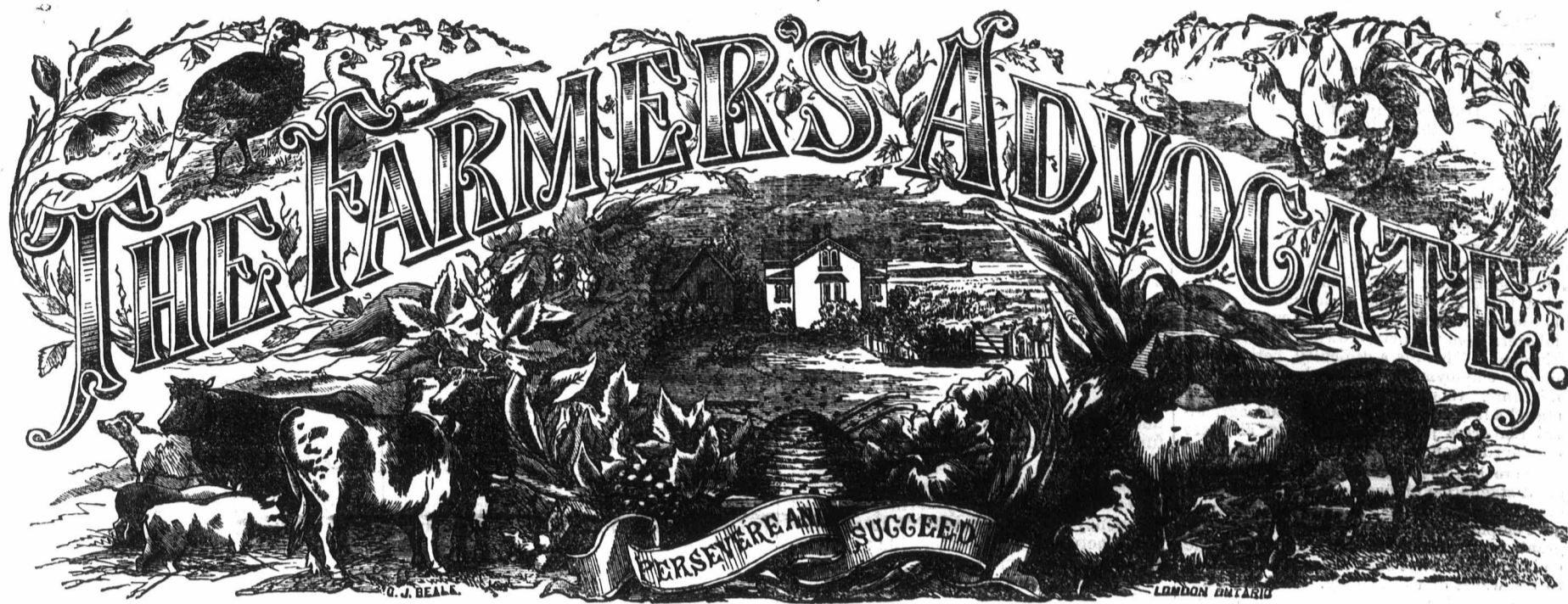
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VOL. IX. { WILLIAM WELD, Editor & Proprietor. }

LONDON, ONT., JUNE, 1874.

{ \$1 Per Annum, Postage Prepaid. } - NO. 6
{ Office—Dundas-St., Opp. City Hotel. }

Seed Wheat.

We notice an article written by one of the Government head officials in a Government paper, deprecating a variety of wheat which has in many sections yielded more bushels per acre than any other variety grown by the side of it. The ground of complaint is made in regard to the quality. Because a certain miller objects to it, the Government paid official dissuades persons from sowing it.

We beg to differ with this writer whose bread we farmers have to pay for. We know of many instances where farmers on clay farms have, at a very great loss, continued sowing the Deihl wheat because of its superior quality over the Scott Wheat. Thousands of acres of the beautiful Deihl wheat have been plowed under annually because there has not been sufficient plant life to pay to have it for a crop.

The Scott Wheat has, in many cases that we could refer to, been left and yielded a good crop when the Deihl wheat sown at the same time, in the same field, and with the same cultivation, had to be plowed under.

We believe we are right in commending such wheats as are known to be the most reliable, as bushels and quantity will yield a greater profit than pecks and quality. In commending or condemning any seed or plan, the Government should endeavor to base their principle on what would result in profit to the farmer.

We hope, if we are wrong in these remarks, that the same Government firm employ or any other of the Government agriculturists will at once furnish us with such information as may rectify our impression. If the Government officials are wrong, perhaps they might let this notice pass unheeded, but as we have double the number of subscribers that the Government paper has, perhaps it might be well for some one of the employes of the Government to correct us, if we are wrong.—We will give them a space in this paper if they choose to furnish the authority or the writer's name.

The particular variety condemned is the Farrow or Red-chaffed Spring Wheat; the Government writer advocates quality and price; we say, quantity and profit.

Prospects of the Crops.

Since the last issue of the *ADVOCATE* the prospect of crops for 1874, if at all changed, has been, as we then anticipated, for the better. The weather has been generally very favorable, and the Fall Wheat, wherever it survived the ordeal of the very unusual winter we have passed through, gives good promise of an abundant crop. In some places it was killed, not retaining the least vestige of vitality, so that farmers had in

some places to plow up their fields and sow another crop. But this occurred only on stiff clay soils. Where the soil was not stiff clay, the wheat plants retained a sufficiency of vitality to strike their roots well into the soil, and when the genial spring weather came in its appointed season, it showed the dark hue and broad leaf that gladden the heart of the farmer. On the whole, then, we may say that Fall Wheat, unless on the retentive, tenacious clay, promises well.—For spring crops the season has been very favorable, and we have good grounds for looking forward with hope to a harvest that will remunerate the tiller of the soil for his labor.

This, our own observation, is confirmed by the reports we receive from all parts of the country. The *Packet*, of Orillia, says: "The Fall Wheat, though somewhat thinned, has not been in any case, so far as our informant could learn, plowed up. It looks green and healthy."

Other sections of the country, though less fortunate, as whole fields had to be plowed up or left as a naked fallow, are green and healthy. The *Cowansville Observer*, Province of Quebec, said as early as April that were there to be tolerably copious rains, followed by warm and genial weather, the fields would soon put on a wonderfully revived appearance.

Even clay lands, where well prepared for fall wheat, have withstood the severe trials of the winter without much loss. Farmers should not risk a crop so expensive, and when succeeding, so profitable a crop, without preparing the soil in the very best manner possible. We cannot too often repeat the advice given already more than once—Let the soil designed for fall wheat, above all other crops, be thoroughly cultivated. Deep, good plowing, enriching the soil, and suffering no water to remain in it, are necessary to procure good remunerative crops.

Immigration of Farm Laborers.

If we are to judge from present prospects, we may expect the greatest immigration to Canada this season we have yet known. The dissatisfaction of working men with the wages paid to the laborers in Europe for their work, has the effect of inducing many of the least migratory habits to come to this land of promise. And the immigrants will not be, as heretofore, the unemployed mechanics and laborers from the dock-yards and manufacturing districts, whose habits render them unfit for farm labor. Skilled farm laborers are already seeking our shores in large numbers, and they are but the precursors of the far greater numbers that we may expect.

The great question for us is how best to profit by this influx of those who may be the means of conferring on the country the greatest amount of good. They have been the bone and sinew of old England. They have been the instrument of carrying out those improvements in agriculture that have made her agriculture so much superior to

that of other nations; and now, for the first time, except in a few isolated cases, have we the opportunity of having that skilled labor added to the wealth of our young Dominion.

The United States, to which in former years the tide of immigration had been mostly directed, do not offer the same inducement as formerly to emigrants; nor is it probable that they will use the same efforts to induce them to make that land their home. The *New York Bulletin* but gives expression to a wide-spread feeling on the subject: that the labor market there is overstocked, and the agricultural interest, though it is at present the most prosperous in the country, "is beginning to receive the overflows of other industries, and will this summer be overstocked with labor." The eyes of Americans are being opened to the fact that as a Government and as a people they have been living too fast. Hence their newly-born caution.

The *Bulletin* thus sounds the note of alarm:—

"We sincerely hope that, for the reasons stated above, the press of Great Britain and Germany will inform the people of those countries of the real condition of the labor market in the United States and advise those who contemplate emigrating to wait until there is a fair opening among us for an increased supply of muscle. Of all things that it is painful to witness in our streets, the sad, forlorn aspect of the starving stranger who can meet with no response to his request to be permitted to work, is the last we wish to see; and we trust that journalists in Europe, when they see our note of warning, will reciprocate this feeling, and use their power to avert such a calamity to their countrymen."

While the exodus from Europe of so many of her best laborers is the cause of great anxiety there to all classes, we look upon it as one of the momentous topics of the day for Canada. Her woods and mines are stores of marvellous wealth, awaiting the hand of labor; and her fertile soil needs but a sufficient supply of skilled labor to make the Dominion be to England what Sicily was of old to Imperial Rome, the granary to supply her super-abundant population with breadstuffs and products of the stall and dairy.

The value of the exports of Canada now gives good promise of what she will be when her resources are more fully developed. The exports for 1873 of the products of the country was \$73,235,600, viz., the contributions from the mine amounted to \$6,471,162; forest, \$28,586,846; agriculture and animals, \$29,238,352; manufactures, &c., \$2,921,802; other articles, \$405,292; ships built at Quebec, \$782,900. If, with our sparse population, our exports amount to the considerable sum of nearly seventy-three and a half millions of dollars, what may not we hope for in another half century?

The *Montreal Witness* speaks of the immigration of farm hands in the following language:

"Canada promises to be the recipient of a goodly number of English agricultural laborers this season. Besides those that arrived last week by the "Sarmatian," the "Prussian," which sailed from Liverpool on the 29th ult., brings 50 Warwickshire farm hands and 120 children, and it is stated the steamer following will bring 150 more agricultural laborers, not counting the children. The emigration of this class is likely to be stimulated not only to Canada but to the United States, owing to the large reduction of fares by transatlantic lines, the price of a steerage passage being reported already to have fallen to \$15, with the prospect of a still further decrease.

"So far as appears, Ontario alone is taking steps to secure the benefit of this tide of immigration, so far as it is setting towards Canada. Being made up of those whose lives have been devoted to agricultural pursuits, these emigrants constitute the most valuable settlers for a new country that could be had, and the result for the Upper Province will doubtless be a further enhancement of the wonderful progress she has already made in the development of her agricultural resources. That Ontario should enjoy a monopoly of this immigration over Quebec appears simply due to the fact that the latter Province does not want any of it. This is not due to want of resources, however, for there are in this Province immense tracts of valuable land eminently adapted for settlement, lying waste, which, if they were placed within the reach of immigrants of the right kind, would soon be able to sustain a very large addition to its present population. What land is settled upon, besides, is largely unprofitable, owing to ignorance of a proper system of agriculture. The Quebec Government, however, in pursuance of its peculiar policy, looks askance on settlers from the British Isles, who are apt to be of the non-tithe paying class, and gladly allows the sister Province to get them all, its organs the meanwhile recounting with various feelings the great development in population and material progress of the latter, and lamenting their own backwardness. The kind of immigrants that they want, there seems no prospect of; and as for improvement in agriculture, there can be none until settlers versed in the science are encouraged to come here and teach by their example.

"Meanwhile, however, it might be well if farmers in this province could by united effort manage to secure for themselves a share of this valuable labor that is going past them to Ontario."

There is one point in connection with the question of emigration that we would impress upon those in authority—it is necessary not only to encourage immigration to the country, but also, and above all, to retain the emigrants in the country. Many who are now emigrated to Canada, have been lured away to make their homes in the United States. Now, when agricultural laborers seek for a home in the country, let us hold out all reasonable inducements, that they may make it their permanent home,—

Let there be none of those measures—too well known as penny wise and pound foolish. There is true economy in the judicious outlay of money that will in due season bring in a return many fold.

P. S.—“Is immigration overdone?” To this query our reply must be in the negative; it may be injudiciously done, but overdone, certainly not. It cannot be that the Dominion, having as great an area of fertile land as the United States and only one-tenth of their population, is so exhausted of resources that there is no longer a home within her borders, or food to be won from her soil for the laborers from the over-crowded districts of Europe. There is a difficulty, betimes, in finding employment for newly arriving immigrants, though it was authoritatively stated a few days since that of 300 agricultural laborers just arrived, nearly all were employed at once.

There has, it is true, been for some time a great stagnation of business, an almost total cessation from industrial pursuits, such as gave employment to very many of the emigrants on their arrival; and not a few of the emigrants were not such as were best suited to the wants of the country. But this temporary paralysis is not of Canadian origin, and will be forgotten.

To raise the Dominion to that position that she should occupy among the nations, every industrial pursuit should be encouraged and her vast resources developed under the fostering care of Government. Were this done, none would ask is immigration to her shores overdone, even were her population increased ten-fold. In no one element necessary to national wealth is the Dominion wanting.

The English journals received by the last steamers contain much information concerning the conflict between the agricultural laborers and the farmers in the eastern counties of England. Both parties in the struggle were resolute. The laborers were in no want of funds, for the resources of their union still held out, and those resources were daily replenished by contributions from the trades-unions and from philanthropic politicians. The Canadian Government has sent authority to the officers of the Agricultural Laborers' Union to ship 100 married laborers with their families, and 100 single laborers each week to Canada until further notice, and at this rate the surplus laborers can soon be sent away.

Editorial Notes.

BET ROOT SUGAR is to be cultivated on a large scale in the Province of Quebec by M. Tache, an eminent agriculturist from France. The soil and climate of Canada are very well suited to the culture of the beet, and we hope the day is not far distant when the Dominion will not be dependent on other countries for sugar, now one of the necessary articles of our food.

THE MARYLAND PEACHES, the *Western Rural* tells us, will be almost an entire failure. A correspondent from Somerset county says: “The last hope of the peach-growers is gone, and in Kent county the peach buds are not only destroyed by the frost, but every other variety of fruit is also seriously injured.”

THE SCARCITY OF FODDER has been the cause of serious loss to the farmers in the vicinity of Harrison and through the township of Maryboro, a great number of cattle having died in consequence. The same state of things has existed at Seaford and many other parts of the country. We hope farmers will be more provident for the future.—If there be at any time anticipations of a dearth of fodder, the farmer can, with a little timely forethought and trouble, provide a substitute in an additional crop of roots, and in Hungarian Grass and corn fodder.

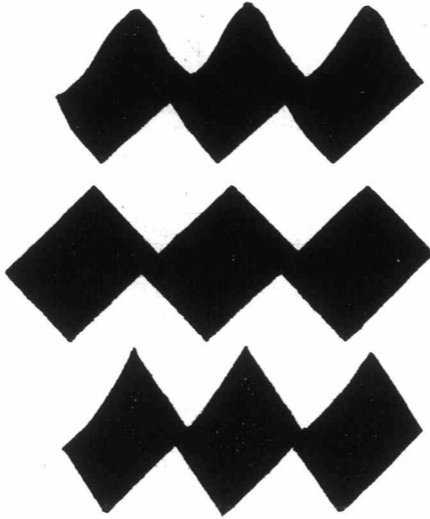
EARTH WORMS IN POTS.—A writer in *Vick's Floral Guide* says: “My house plants have suffered very much from earth worms. I tried many things, and they only became more numerous. At last I put ten drops of carbolic acid in a pint of water and poured that on the earth in the pots, and it acted like a charm. It killed all the worms, and the plants began to improve at once. It has been three weeks since it has been applied, and they are all in a nice growing condition, and I think that is time enough to show what it will do.”

Implements.

During the past month we have had two calls from persons desirous of introducing their wares. We devote what time and attention we can spare to the examination of such implements as appear to deserve attention. We had them taken to fields in the neighborhood to see the actual work done by them.

The first brought to us was a patent revolving harrow. The harrow was put on a piece of sod land that had been recently plowed; it did its work very well, pulverizing the ground and levelling it better than any harrow we have seen work. It would revolve to the right or left, at the option of the operator. It would level uneven surfaces, or close up or open a dead furrow better than other harrows; it does not cover near as much space as ordinary harrows.

We do not advise any farmer to invest his money in any patent right affair.—Manufacturers are better able to judge about the profit or loss on such a thing than farmers. In looking over an English agricultural work we see an illustration of a very similar harrow.



Mr. W. S. Arnold, of the firm of McGarvin & Arnold, of Chatham, brought a plow for our inspection. This implement we also had put into operation. The plow is peculiarly constructed, having a hollow or low part made in the shear mold-board and land side, and having a curved coulter. It is called the O. G. Plow from the curved form of its construction. Mr. McGarvin is one of the best farmers in the county of Kent. His boys pride themselves in plowing.

They have had this plow made, altered and perfected for their own use, and now they believe they have the plow that will surpass any plow for doing first-class work, and for doing work that will carry off the prize at the plowing matches; also that the land plowed by it will yield better crops, because there is in reality more land thrown up for the harrow to take effect on.

We were well pleased with the work it did, although the land on which it was tried was an unsuitable piece as could well be found; still it did its work well. The plow was first brought before the notice of the public at the Provincial Plowing Match, held near Chatham last autumn. Three of these plows were put in use in the different classes. A large number of manufacturers had their plows at work, but the work done by the O. G. plow gained two first prizes and one third prize.

We have no doubt but it will be at the Provincial Exhibition at Toronto; those interested could then examine it.

We give in the illustration a representation of the appearance of the furrows as turned by the different kinds of plows. The top cut represents the work done by the O. G. Plow; the second as done by our common plows; the third showing the work done at the plowing matches.

The great advantage of this plow is the larger quantity of earth thrown up by it, so that the harrow can affect it more easily.

THE CROPS IN WEST MIDDLESEX.

Contrary to the expectations of even the most experienced farmers, the Fall Wheat has made such extraordinary progress during the few days of very hot weather, that even more than an average crop is the expectation now. Mr. Grierson has as fine a crop of Fall Wheat as is usually to be met with at this season of the year. All the spring grains are rushing up with marvellous speed. Rain has at last come, too, in gentle showers. The plum trees and cherries are in full blossom, and the apple blossom is nearly full blown, and before this is printed, the peach will lend its pink blossom to decorate and adorn the gardens around Sylvan.—*Gazette.*

Patrons of Husbandry.

This Order is gradually increasing in numbers in our Dominion. Although of American origin we have connected ourselves with it; our reason for so doing is because we believe the organization will be of much advantage to our farmers.—We have labored for years to unite the farmers together for the purpose of advancing our agricultural interests.

We believe the organization will become influential and of great advantage, not only to farmers but to the welfare of the country generally. Many abuses will be checked, information will be spread, and profit will result to the farmers.—Farmers will have more influence and power. Some persons are opposed to the progress of the organization for various reasons. Some paid persons attack it in various ways, and an organization we hear is formed to check its progress, these opposing steps will be of no avail.

The Granges now established in Canada are sufficient to entitle us to our Charter. We can now form our Dominion or Provincial Grange or Order, under whatever name we may choose to call it.

We shall have no necessity for sending our funds to the States, or any portion of them, unless we wish. We believe it will be better for the organization to affiliate with the States organization, but to be a Canadian and independent order. We now have their constitution, by-laws and modes of working; they are well and ably prepared, and will suit us, with but slight alterations. We even imagine that some very important and beneficial additions can be added.

We consider there is no great necessity for forming more Granges at the present, as this is now the busy season for farmers. The Granges now formed can work to their best advantage by uniting.

We suggest holding a preliminary assembly soon. Those who meet can draw up a constitution and by-laws, and appoint officers *pro. tem.* to our Canadian or Dominion Grange, so that we may go to work immediately organizing subordinate Granges, without the necessity of sending any more money to the United States. Copies of the constitution they adopt can be printed and sent to each Grange in the Dominion for their examination and discussion, and a meeting of the Canadian Dominion Grange called for Wednesday of Provincial Exhibition week, at Toronto, when all Granges could be represented either by their Masters or some one elected for that purpose, and when the constitution and by-laws would be adopted or amended, and regular officers appointed for the ensuing year.

New Granges.

LONDON TOWNSHIP GRANGE, NO. 11.
1ST MAY.

MASTER.—Capt. Jas. Burgess, London P.O.
SECRETARY.—W. L. Brown, Hyde Park P.O.

FOREST CITY GRANGE, NO. 12.

9TH MAY.

MASTER.—Harry Bruce, London P.O.
SECRETARY.—Thos. W. Dyas, London P.O.

The reports from the other newly organized Granges have not yet come in. We wish Secretaries would report to us immediately when a Grange is formed, or when any new matter comes before them.

Dairy Hints for June.

BY HON. X. A. WILLARD, PRESIDENT OF THE NEW YORK STATE DAIRYMEN'S ASSOCIATION.

Written for the *Farmers' Advocate.*

June is generally considered one of the best months for dairying. The herds then usually yield the largest quantity of milk. The grass is sweet and tender, and if good milk is not produced the fault is in the cows, or their management, or in the handling of the milk. We are supposing now that the cows are feeding upon good grass, and are not permitted to consume wild onions or other weeds that give a taint to the milk. Why is it then that so much bad cheese and poor butter are made in June? 2nd.—Who is responsible for the inferior product—the factory manager or the farmer? Occasionally the fault perhaps may be traced to the factoryman, but generally it lays wholly with the farmer. We shall enumerate some of the most common faults for bad milk, and if the dairy readers of the *ADVOCATE* do not recognize in one list of short comings, something applicable to their case, we shall be very much mistaken. A good deal of bad milk results in the first place, by allowing cows to drink from mud holes, pools of filthy water, in swales and low grounds where much vegetable or animal matter is in rapid process of decomposition. Sometimes the weather comes off very warm in June, and the water in these places becomes offensive to the smell, especially when stirred, but the herd is often permitted to tramp through these watering places, to drop their excrement, which increases the nastiness of the water. Is it reasonable to suppose that good flavored milk can be obtained from cows slacking their thirst from these foul pools. Every dairyman should see to it that his herd is provided with clean, sweet water, for this is imperatively demanded, if a good flavor ed, healthy milk is to be made. Bad water is a fruitful source of bad milk and the sooner our Canadian friends take pains to provide their herds with an abundance of good water, the better will their dairy products meet the requirements of the markets, and higher prices be obtained.

In regard to the treatment of cows in June there is one suggestion which we deem important. Cows in milk, at no time should be driven from the pasture to be milked faster than a slow walk; but in June, when their udders are extended to the utmost capacity, fast driving is very hurtful, not infrequently doing serious injury to the udder by bruising; and by overheating the blood, by straining and bruising the milk glands, the milk becomes affected, and in many instances is rendered unfit for human consumption. We have seen bloody milk the result of fast driving, as the strain upon the udder causes some of its parts to give way, hence more or less inflammation follows, causing bad milk, mingled with that which is good, soon affects the whole mass, giving trouble to the cheese maker, who will not be able to make from it a first class product. Dairymen should be careful to have cows thoroughly milked; the udder should be carefully emptied for if any milk be left back it is the richest portion. Thus the dairyman is not only robbed for the time being, but by not milking clean, the cow commences to yield less and less milk from day to day, and will “dry up” earlier than she should. The milking in June should be done carefully and thoroughly. Carefully, because any rough handling of the disturbed udder causes pain to the animal, and makes her nervous, all of which will affect the yield and injure the usefulness of the cow. There is nothing more important in dairy management than the proper manner of milking; some milkers will do more injury to the herd, and cause more loss than the value of their wages, and if dairymen look for success in their business, this matter of milking must be strictly attended to by the owner himself, or by some trustworthy person who will see that every animal is properly milked. In June we are fast approaching hot weather, all milk as soon as drawn should be

aerated and before it starts be set in a tin sweet atmosphere by dipping a can. There is air through the milk and enabled longer, than w

The Bussey cheap, and good consists in a surface above the tin reservoir can when it milk when drawn into the strain in a spray u and thus is bo

The aeration order to free benefit to its finer flavored than from milk point which C understand in product.

We urge, the readers of the first primer and cheese improvement in the most surely re

Who sent r Falls, April 7th

SIR,—Please CATE: I have ta be without it, think we could

HOW TO RA Get a good as near the tem for disposition done, a-lect a b compact and a drink, for these done, feed well stable and yar have a pair tha they are just find that three clover hay they just right—tra plenty of good This is from it.

Wainfleet, A

po the ADVOCATE tion as to whe made as a Pot if so, where m work well? Lucknow, A [We have se named purpose are giving satis tried either of who has, Can not. We shou one of our subs F. A.]

SIR,—In th able paper yo producers:—

They are no no part in the make their livi the manufactu a share of the the value of worst or only plain—if they whether the a not, they tra mending the coaxing them blow for hou they must kno by their con teasing, men a buy articles th if left to use tion, he never has been dec derful tales of manufacturers agents. This,

aerated and then cooled down to about 70° before it starts for the factory. If the cans be set in a tub of cold water and placed in a sweet atmosphere, the milk may be aerated by dipping and letting it fall back in the can. There is a cheap apparatus for forcing air through the milk and it is very serviceable, greatly improving the character of the milk and enabling it to be kept sound much longer, than when no aeration is had.

The Bussey aerator and cooler is a simple, cheap, and good device for the purpose. It consists in a strainer pail raised about two feet above the common carrying can, and a tin reservoir for water or ice placed in the can when it floats on the milk. The milk when drawn from the can is emptied into the strainer pail, from whence it falls in a spray upon the reservoir in the can, and thus is both aerated and cooled.

The aeration of milk as soon as drawn, in order to free it from animal odor, is of great benefit to its keeping qualities. A much finer flavored cheese is made from such milk than from milk not so treated, and it is a point which Canadian dairymen should fully understand in their efforts to make a superior product.

We urge, therefore these hints on the dairy readers of the FARMER'S ADVOCATE, as among the first principles for producing good butter and cheese, and if they are followed, improvement in the dairy goods of Canada will most surely result.

Correspondence.

Who sent registered letter from Fenelon Falls, April 7th?

SIR,—Please continue sending the *ADVOCATE*; I have taken it a year, and I would not be without it for twice the cost of it, for we think we could not do without it.

HOW TO RAISE A GOOD FARMER'S TEAM.

Get a good span of mares of medium size, as near the temper of each other as possible, for disposition is a great thing in a horse. This done, select a horse of the middle size that is compact and a good feeder, and ever ready to drink, for these are two great points. This done, feed well the first winter—a good, warm stable and yard—five days for exercise, and they are just what every farmer wants. I find that three quarts of oats and all the good clover hay they will eat will bring them out just right—that is, three quarts a piece, with plenty of good, clean water.

This is from a farmer; publish, if it is worth it.
Wainfleet, April 3, 1874.

POTATO BUG PICKER.

SIR,—Could you, in the next number of the *ADVOCATE*, give us farmers any information as to whether there is such a machine made as a Potato Bug Picker or Catcher, and if so, where made, and the cost, and if you work well?
MALCOLM McDONALD,
Lucknow, April, 1874.

[We have seen two machines for the above named purpose, but do not know whether they are giving satisfaction or not, as we have not tried either of them, nor have seen any one who has. Cannot tell if they are efficient or not. We should be pleased to hear from any one of our subscribers who has used one.—Ed. F. A.]

NON-PRODUCERS.

SIR,—In the April number of your valuable paper you asked for opinions on non-producers:—

They are non-producers because they take no part in the industries of the country, but make their living simply by standing between the manufacturer and the purchaser; taking a share of the money paid without enhancing the value of the article. This is not the worst or only grievance of which we complain—if they receive an agency, no matter whether the article is good for anything or not, they travel about the country, recommending the article to everybody, and coaxing them to buy. They will talk and blow for hours on its merits, even when they must know it is good for nothing; and by their continual talking, boasting and teasing, men are often deceived, and will buy articles they know nothing about; when, if left to use his own judgment and discretion, he never would have bought it; but he has been deceived by listening to the wonderful tales of the agent. But a great many manufacturers will sell only through these agents. This, I maintain, is unjust, because

a man is forced to give these agents a heavy percentage, when he could easily dispense with his services. You will see by this system we are compelled to sustain these men, if we want machines.

But the times are changing. Granges are being organized through the country. Meeting at these, men can consult one another, and get honest and unbiased opinions on the different kinds of machinery, and find out where and by whom they are made. In this way they will be able to get the best articles every time, without being pestered with the agent's long stories. The manufacturers of good articles will find it to their interest to sell direct to the real purchaser; and throw of the agents' fees, which will make their machines much cheaper. It will be a benefit to themselves, and at the same time rid the country of a great nuisance. If these agents will cease their wanderings, turn to farming, and become producers, instead of non-producers or teasers, it would be a great benefit to the country.

Hoping the farmers of Canada will arouse themselves, and consult one another, to find out the best kinds of implements, and the best way of buying them, without supporting a lot of agents, I remain, yours,

J. C. W.

St. Vincent, April 17, 1874.

LEACHED ASHES.

SIR,—I see a statement in your last issue on leached ashes on land, and I must say that my experience has been very different. I have used them for a long time, and there are some kinds of soil that they do not do much good on, such as stiff clay. The kind I have used them on is a clay loam. Last year I put my potatoes on a piece of sod, and on part I spread leached ashes, and on part I put none. The part that I put ashes on had more than double the quantity of potatoes than where there were none. I positively believe that ashes are the very best manure that can be used on potatoes on any land, more particularly so on soil. You will observe that I spread the ashes on first, then I plough the potatoes in, putting sets in every three furrows; of course the ashes turned on to the sets.
T. M. S.
Turnberry, April 27, 1874.

LAMPAS AND WOLF'S TEETH IN HORSES AND WORMS IN SWINE.

SIR,—I see a remark about lampas in horses which I think is an error. I have raised, trained and cared for horses for over twenty years; have owned horses of all ages, and know that if the lampas are not properly burned out they will stay with some horses until worn out with age. I have had horses at the age of nineteen so poor that they were not fit for work, and by burning the lampas well down, on the same feed, care and work, they became fat and able, which proves to me they are a nuisance.

Wolf's teeth are a nuisance. They blind some horses that have them large; others may keep them long and not show it. Much the better way is to take them out; that leaves it all right.

I have tried hog raising for twenty years, and have found for worms in hogs that a soft soap dose of from four quarts down, according to size. This will cure worms, with salt for physic after the soap.
S. L. McCUBBIN,
Burford, May 11, 1874.

[We thank all correspondents for giving their opinions, although we may not always agree with them. We think 4 quarts a rather heavy dose.—Ed. F. A.]

A. W. Smith, of Pontiac Co., P. Q., says grapes do better with him than apples. He grows the Concord and Delaware. He speaks highly of the Probestier oats.

COMMISSION MERCHANTS.

SIR,—In order to show you the necessity of our taking some steps to protect ourselves from agents and commission men, I will relate one of my experiences with them. I raise hops, and have at times been compelled to use commission men to make sales for me. In 1865 I sent down some hops to Toronto, and went there to sell them; but they were delayed so upon the railways, that I could not await their arrival; I therefore gave the matter into the charge of a commission merchant, requesting him to sell them for me. In about six weeks he sent me notice that he had offers of 20 or 21 cents for them, and asked me to telegraph if I would sell. I wrote to him, saying not

to sell under 25 cents, anyway, as he had led me to believe, when in Toronto, that they would bring 40 cents. He wrote back in a few days, saying that he could give me 25 cents, as he might be able to sell them out in small lots. The next year I was in Toronto, and by accident I met one of the parties who purchased my hops from the commission man, and found out that he had sold my hops before he had written to me, for 37½ cents. Of this knavery I could not convince him for six years, as the evidence I needed was his own clerk, and I was afraid to note it; but six years afterwards the clerk was out of his employment, and wrote to me, stating that he was willing to give evidence. I entered the case into Chancery, and recovered \$340. By means of the granges which are being organized, I hope that all danger of such robberies may be done away with, and we may dispense with some of their middlemen. ANGUS SHAW.

E. R., Amherstburg, asks the following questions:

What kind of land is best suited for a crop of Broom corn? How much seed is required per acre? What way should it be cultivated? How cured and prepared for market? and how marketed?

[We should be pleased to hear from any of our subscribers that have had experience with it.—Ed. F. A.]

MANAGEMENT OF PASTURE AND FARM LANDS.

SIR,—Much has been written on this subject by men of letters with many good points in their writings, but I would rather have five years of practical knowledge than twenty years of theoretical. The farmer that wants to live by the field must make himself acquainted with the field, or he is sure to fail in its management, so far as my observations of Canadian farming has gone for the last five years, it is possible to improve it very much, the farmer cannot see how it will pay to take so much trouble to feed his land and if he does not attend to this matter he is wasting his time and money. I find the studies of books and men good in their place, but I also find, that the farmer has in his farm his best friend if he will only make use of it. Now for my plan for preparing a good meadow and permanent pasture I seed down with barley in the spring, and I find the best plan to adopt to get the land in good order is to break up the sod early in the spring; sow oats four bushels to the acre, well worked in. As soon as the crop is off I put in the cultivator and get the stubble and weeds on the top; then put on the harrows and after that let it lie to the sun for a day or two. Then I put on the chain harrow, this knocks all the dirt off the stubble and weeds and drags the stubble up in heaps, so I can collect it in the wagon or cart. I prefer the latter, as it is the handiest, as I draw it all in heaps on the field, after which I plow two furrows around the field and draw an equal number of loads of the ploughed earth to each heap and cover all the stubbles. Then fetch about twenty loads of manure to each heap, spread this compost heap evenly on the top and sides. As soon as possible plow the land and let it lie till I get through seeding. But I make time to have all my heap well turned and mixed. After seeding I turned to my field for raising roots, I now draw out my compost heaps evenly on the whole field I plow harrow and cultivate it until it is well pulverized,—now it is fit for turnips, mangolds and potatoes, beets and carrots. Now it will be well hoed and cropped soon after. As soon as I have the crops off I put in the cultivator and stir the soil as deep as the team can cultivate. I leave it now until spring. At the proper time I plow deep, work it well and sow barley, putting it carefully in. I take the roller and roll the whole field, drawing a mark at every six feet to sow my timothy and clover by. After the seed is sown I take the team with a light seed harrow just half around or once across the field. I have adapted this plan since 1865, and I am satisfied that it more than double pays for the labor, the yield is from two to four times more per acre according to the season. By all means keep stock off till late in the fall and I like to keep them off altogether if possible. In the spring I would if the land is dry, feed the first growth about two weeks and not feed to clean. The hay would commence then about the time the old meadows are ready, and the hay can then be well mixed in the mow. This may not look to be the best way to an old Canadian farmer; but try it before you condemn it. FARMER.
Deerham, April 14, 1874.

—The first wheat sown in this country was in 1602, on an island in Buzzard's Bay, Mass. The first wheat sown in Virginia, was in 1611. Potatoes were first sown in 1629. The first apples were raised on Governor's Island, in Boston Harbor, in 1639. Ten fair pippens were produced. The value of the fruit crop in 1870 was \$48,000,000.

Miscellaneous.

ITEM FROM PARIS LETTER.

The winter is peculiarly unfavourable, consisting so far of persistent fogs, which by preventing all nocturnal radiation, maintains a disagreeable humidity, under cover of which small black slugs feed on the young winter wheat, and, although powdering the surface with lime destroys many of them, the invading army seems to possess a landwehr, to judge by the hosts that come to the rescue. Crows are the best extirpating agents of snails at this season. Unhappily every man's hand that is to say, every one's gun, is against the bird. This abnormal mildness will in due course, turn to severity.

COATING FOR OUTSIDE WALLS.

The following coating for rough brick walls is used by the U. S. Government for painting light-houses, and it effectually prevents moisture from sinking through:

Take fresh Rosendale cement, 3 parts, and of clean, fine sand, 1 part; mix with fresh water thoroughly. This gives a grey or granite color, according to color of cement. If brick color is desired, add enough Venetian red to the mixture to produce the color. If a very light color is desired, lime may be used with the cement and sand. Care must be taken to have all the ingredients well mixed together. In applying the wash, the wall must be wet with clean, fresh water; then follow immediately with the cement wash. This prevents the bricks from absorbing the water from the wash too rapidly, and gives time for the cement to set. The wash must be well stirred during the application. The mixture is to be made as thick as can be applied conveniently with a white-wash brush. It is admirably suited for brick work, fences, etc., but it cannot be used to advantage over paint or white-wash.

INTEREST.

No blister draws sharper than interest. It works all day and all night, in fair weather and in foul. It has no sound in its footsteps, but travels fast. It gnaws at a man's substance with invisible teeth. It binds industry with a film as fly is bound in a spider's web. Debts roll a man over and over, binding him hand and foot, and letting him hang upon the fatal mesh until the long-legged interest devours him. There is but one thing on a farm or plantation like it, and that is the Canada thistle, which swarms new plants every time you break its roots; whose blossoms are prolific and every flower the father of a million seeds; every leaf is an awl, every branch is a spear, and every plant like a platoon of bayonets, and a field of them like an armed host; the whole plant a torment and a vegetable curse, and yet the farmer had better make his bed of Canada thistles than attempt to be at ease upon interest.

A SWARM OF LOCUSTS.

The following historical facts will give an idea of the enormous magnitude sometimes attained by migrating swarms of insects. After the defeat of Poltava, while retreating through Besserabia, Charles XII's army was marching through a defile, when suddenly the men and horses were brought to a halt, being precipitated from a thick cloud which intercepted the light of the sun. The coming of the locusts was heralded by a whizzing sound like that which precedes a storm of wind, and the noise of their wings and of their bodies as they clashed together was greater than the roar of breakers on the sea shore. General Lovallian saw at Philippeville Algeria, a cloud of locusts twenty to twenty-five miles in length, which, when it descended to the earth, formed a layer over an inch in thickness. Towards the close of 1864, the cotton plantations of Senegal were destroyed and a living cloud was seen to pass over the country from morning till night; the rate at which it moved showed that it was about fifty miles long; and this was only the vanguard, for when the sun went down a still denser cloud was moving on. The English traveller, Barrow, states that in Southern Africa, in the year 1797, these insects covered the ground to the extent of two square miles, and that being driven by the wind toward the sea, they found a drift near the coast nearly four feet in depth, and fifty miles long. After the wind changed, the stench of their putrifying carcasses was recognized at the distance of a hundred and fifty miles.

CANADA'S INTEREST.

The "Pall Mall Gazette" says:—Canada is fast becoming a dangerous rival to the United States in the matter of butter and cheese.

FOREIGN CROP REPORTS.

In Dorset, a southern county of England, one of the driest spring seasons ever recollected in the report.

In Austria and Hungary the season so far had been dry and favorable for spring work, and the sowing of the crops had made rapid progress.

The general tone of the reports indicates so far a very favorable condition of the growing crops and of the spring work in Great Britain, better than we have known for the past three years.

The cable reports show a slight advance at Liverpool during the past week in American spring wheat; but California and Winter Red are marked down about four cents on the hundred pounds.

THE FAMILY FRUIT GARDEN.

It is to be hoped that the number of farm residences without a family fruit garden are rapidly diminishing, and will grow beautifully less, until a farmer shall no more think of dispensing with this important adjunct of the complete home than he would with a spring or well of water for drinking or culinary purposes.

of fruits, the taller growing should be planted in the rear, and the shorter in front, so that the whole garden may be taken in at a glance.

In small places, where all the fruit is to be contained in the fruit garden, dwarf apples, pears and cherries may be admitted; but on a farm, apples and cherries should be planted in the orchard.

HARVEST PROSPECTS IN BRITAIN.

Two very calamitous years of bad harvests, which have caused heavy losses to farmers and to the country at large, are succeeded by one promising, so far, a bright and more promising result.

AGRICULTURAL PRODUCTS EXPORTED FROM CANADA IN 1873.

Of domestic animals and their products the exportation amounted to \$11,303,901. Of this sum, butter brought \$2,806,979.

Prize Essay.

TO KEEP EGGS OVER WINTER.

Whatever excludes the air prevents the decay of the egg. What I have found to be the most successful method of doing so is to place a small quantity of salt butter in the palm of the left hand and turn the egg round in it, so that every pore of the shell is closed;

Three other essays deserve special mention.

Mrs. Wm. Church says the best way she finds is to "take a pot or pail, or anything convenient, put about an inch or two of meal or any kind of bran (I generally take shorts from flour—being a farmer's wife, I have it on hand) in it, put a layer of eggs, either end down, close together; then cover with meal, another layer of eggs, and so on until the box is full, occasionally giving it a shake to fill well between the eggs.

J. B., Strathnairn, says:

"I take a tub of any size and put a layer of common salt about an inch deep in the bottom. Then grease the eggs with butter, and place them in the salt with the small end down, so that they will not touch the wood of the tub nor each other; then fill the vacancies with salt and cover them again about an inch deep, as before; then place another layer of eggs as before; then salt alternately till the tub is filled; then cover the top with salt, and put them where they will not freeze. I have kept eggs in this manner from September till April, as good as fresh eggs.

Emily Audinwood, Stanstead Plains, P. Q., says:

"I have tried several experiments, but find none to answer so well as the following. I have kept eggs for two years, and found them perfectly good when used. Two lbs. coarse salt boiled ten minutes in one gallon rain water; pour off into an earthen jar. When nearly cold, stir in five tablespoons of quick-lime; let it stand till next day; then put in the eggs and keep them tightly covered until wanted for use."

Provincial Prizes.

ABDIEL G. DEADMAN VS. THE BOARD OF AGRICULTURE.

SHOULD PRODUCTS OR MEN CARRY OFF THE PRIZES?

Mr. Smart, of Hamilton, for defendants; E. Meredith, London, for plaintiff. The case came off on May 22nd, at the Division Court, Delaware.

mained on Mr. Deadman's fruit till the last day of the Exhibition. Mr. Deadman proved by a number of fruit growers that there were no just grounds for the reversion of the decision given by the judges.

Mr. Deadman, considering that he had been improperly treated, brought an action to recover the prize taken from him; he gained the case. The Board appealed for a new trial, hoping to come out better next time.

The Rev'd Mr. Burnett was the person who had altered the award of the judges, and on whom the Board depended for council in this matter. He attended both the suits. This worthy stated before the Board at their meeting in December that Mr. Deadman's apples were incorrectly named—that one was named the pear apple. This, if correct, would have been sufficient to have thrown him out of the prize, but at the last trial in Delaware, his Reverence perhaps forgot his former remarks before the Board; he also swore that he had torn up Mr. Deadman's ticket on Thursday, and that he always destroyed the ticket when alterations were made. Three witnesses distinctly swore that the ticket said to have been torn up on Thursday was remaining on Mr. Deadman's apples on Friday. Mr. Burnett also swore that a protest had been given in against the award of the judges; the Secretary to the Board had the other protests that had been given in, but had not this one, nor did he remember having seen it.

One witness, Mr. W. Buttery, swore he had taken his ticket home, which Mr. Burnett said had been destroyed.

It has been our impression that the Board of Agriculture should consist of men elected by farmers. His Reverence has obtained a seat at that Board without the voice of the farmers placing him there. Whatever may have been his motive in trying to take the prize from Mr. Deadman is unknown to us. Many other fruit growers have been greatly annoyed by the withholding of the prizes that had been awarded to them, and felt they have been dishonorably dealt with.

But this case may give the public a little more encouragement, as some exhibitors have said that because of the injustice done them they would exhibit no more. In the above case the jury gave a verdict for Mr. Deadman. The Board has already paid one prize of \$8 to another exhibitor; they will now have to pay Mr. Deadman \$8 also; the expenses, we presume, will come to \$60. It was not for the value of \$8 that Mr. Deadman brought this action, but to try and put a check to this practice, as many western fruit growers have been much annoyed by it.

Reciprocity.

It is said that there is a probability of a Reciprocity Treaty being agreed to between the Dominion of Canada and the United States, to comprehend the following articles:

1. The waiver of the money compensated by the United States for the fisheries under the Washington Treaty.
2. That the Canadian canals, from Lake Erie to Montreal, shall be enlarged within three years, at the cost of Canada, so as to admit the passage of vessels 260 feet in length and 45 feet in breadth, and with a depth equal to the capacity of the lake harbors.
3. That during the continuance of the treaty, all the Canadian canals, and the Erie, Whitehall, Saulte Ste. Marie, and Lake St. Clair Canal, shall be open to the vessels and boats of both countries on the same conditions and terms.
4. That the free navigation of Lake Michigan be put on the same terms as the free navigation of the St. Lawrence River.
5. That the navigation of the St. Clair Flats shall be maintained at the expense of both countries, in proportion to their commerce thereon.
6. That the products of the farm, forest, mines and waters, and also animals, meats and products of the dairy be admitted into both countries duty free, as was provided in

the treaty of 1854. This list may possibly be extended so as to include agricultural implements, manufactures of iron and steel, and of wood, mineral oils, salt, and a few other articles. There may be other things which the contracting parties may consider proper and just to include in this treaty, and which would be equally satisfactory.

Prize Essay.

The essay for which we will award the prize this month will be, "The Rearing of Calves Without Milk." Essays must be in by the 20th of June.

Agricultural Items.

The *Mark Lane Express* of a recent date says that the weather of the past week, though generally fine, has been colder than expected; but this further check of vegetation may be beneficial. This is, however, gradually advancing, and we here of nothing adverse as respects the crops on the ground, and farmers seem as likely to be lucky with their spring time as they were in the autumn. In some localities rain begins to be wanted. A holiday week seldom shows any advance in prices; but the tendency has certainly been that way, the late reduction of values having been justified by the foreign arrivals; while home supplies show on the week's sales a further diminution of 11,499 qrs. from those of 1873; and we here from English factors how there is very little left of English growth, and that is in the hands of large wealthy farmers. It is early yet to exhibit signs of exhaustion; but if we had little more than half a crop, we certainly ought to begin to feel it. If the small farmers are getting cleared out, notwithstanding the liberal aid received from abroad, and we are left to the consideration of those who have the power of the purse, our future necessities, calculated hitherto at one million qrs. monthly, are as likely to be below the mark as above it. Indeed, unless the general harvest be one month forward, there may yet be a sharp demand for wheat, at advanced rates, as we near the gatherings.

NEW SYSTEM OF POTATO CULTURE.

At a recent meeting of the Society of Arts in England, Mr. Shirley Hibberd, a distinguished authority in all rural affairs, read a paper on the cultivation of the potato, which propounded a new and singular method he has been led to adopt, as the result of considerable thought concerning the nature and habits of this important esculent, and long continued experiments in growing it. In giving the substance of his views, we shall omit altogether a somewhat lengthy discussion of the various theories which have been suggested by way of accounting for and preventing the potato disease, the continued prevalence of which in Britain is the great difficulty farmers and gardeners have to combat in their endeavors to grow the potato. Suffice it to say, that Mr. Hibberd traces the disease to excess of moisture and lack of heat. He supports his hypothesis by a description of the soil and climate of those regions where the plant is found growing in a state of nature, and also by a comparison of seasons, going to show that the best crops have uniformly been obtained in those years when dry, hot weather has most prevailed; and the poorest ones when there has been special humidity of atmosphere, and a low average of summer heat. He refers to the fact that the potato is a native of the warm, temperate regions of the Western continent, and that it is never found growing wild, in either a sub-arctic or a tropical climate.

HOW TO PROMOTE FRUITFULNESS.

The *Prairie Farmer* says:—"When it is desirable to throw a tree or an orchard into fruiting, because of wood growth being very vigorous without fruit-buds, remedies may be practised. Ceasing cultivation and sowing the ground to clover or grass often works well, but must not be continued too long. Root-pruning, hacking the trees, and pinching or shortening in the young shoots have the same effect, but practically, we should prefer ceasing cultivation and seeding down. Severe summer pruning would perhaps produce such results, but it is too severe upon the vitality of the tree. Trees not pruned at all often but earlier than others."

PLASTER AS A MANURE.

A correspondent of the *Main Farmer* writes:—"There seems to be little doubt but what plaster, as it is called by chemists, sulphate of lime, is, on some soils, an efficient and cheap manure; while on other, it seems to be of little or no value, as no difference can be detected in the crops following its use. Now, in order to tell the soil on which it will pay to use it, is a question which we shall have to decide for ourselves; for I am not aware that any man can tell by looking at the soil where it will pay to use it, or where it will not pay. Therefore, if we would know for a certainty it is best to try small quantities on different parts of the field, and the answer that you may get will likely be a true one. After you have found where it would pay, and it may be well to say here that if the crops are all consumed upon the farm, there need be no fears of ruining your farm by using plaster in a judicious manner."

HEAVY.—To give our farmer friends some idea of what can be done in the way of raising good stock, provided they take the trouble to get the right breed to start upon, we append the following weights of a lot of stock which Col. Wm. Starratt had weighed on the scales in this town on Monday last:—1 bull, 22 months old, weighed 1520 lbs.; 1, 12 months old, 1000 lbs.; 1, 12 months old, 860 lbs.; 1, 9 months old, 710 lbs.; 1 yearling heifer, 860 lbs. They are said by competent judges to be a splendid lot of cattle, and reflect credit on the owner.—*Bridgetown (N. S.) Monitor*.

THE WEATHER AND THE CROPS.—During the latter part of last week and beginning of this, we were visited with light showers that did much good to the growing crops; but the weather keeps rather too cold for much growth, but there is no reason for complaint as far as the spring crops are concerned, as they have been well put in, and are coming up evenly over the ground. The weather having been fine for a long time, a great breadth of land has been put under crop, besides a large portion of the fall wheat ground re-sown.—*Clinton New Era*.

PANS VERSUS CANS.

A correspondent in the *Rural New Yorker*, seeing it that paper a statement which seems to give the preference to shallow setting for the purpose of getting the cream from milk, writes to give the result of experiments made with pans and cans, as follows.

This trial was made within the first ten days of August, and designed to be a thorough test of the manner of setting milk. The morning milk was used each time, the milk being divided into nearly equal quarts. First experiment, 136½ lbs. in the deep can, 17½ inches and 14½ lbs. in the pan 3½ inches deep. The water was taken from the same tank to keep the temperature of the milk standing at about 58°; it soured in the pans at 40 hours, and not changing in the can till 48 hours. The cream was churned as soon as taken from the milk, the can producing 6 lbs. of butter before salting, and the pans 5 lbs. 10 oz. or a pound of butter from 24 lbs. 6 oz. of milk, and the can a pound of butter from 22 lbs. 10 oz.

The next experiment gave precisely the same result. The third experiment, the pan had 2 lbs. more milk than the can, and the same amount of butter. These gentlemen said they had carefully tested the matter, and are fully satisfied that the best manner of setting the milk is in deep cans, and that the temperature of the milk may be kept as wanted.

THE CROPS.—Since the last fall of rain, matters in the country have become more cheerful. Grass grows greener and greener, and the prospects for the meadows have vastly improved. There are now good chances for the spring crops, and most of the seed is sown. Fall wheat and clover, though, are to be failures in most places, and there will be a loss to some farmers under these crops. Both had become so bad in condition before the rain fell, that when it did come it was too late. *Hamilton Times*.

—There is a way of preventing the gad-fly laying its eggs in the backs of cattle but keeping the cattle in stables during the days in August or September, which is the season when the fly lays its eggs.

BEE NOTES.

Bees have solved a recondite problem. They have made their cells of a proper shape to hold the greatest possible amount of honey, with the least possible consumption of precious wax, in their construction.

No human workman is skillful enough to do what a crowd of bees can do—working in a dark hive—make cells of wax of the true form.

The number of humble bees in the country will depend upon the number of cats! How can that be? Because the number of bees is dependent upon the number of field mice, which eat the bees. Hence, the more cats the fewer mice, and the fewer mice the more bees.

If the whole germs of humble-bees became extinct, or very rare, the heartsease and red clover would become rare, or wholly disappear. How is that? Because bees promote the growth of those flowers. The visits of bees are necessary to the fertilization of some kinds of clover, and almost indispensable to the fertilization of the heartsease, for these bees do not visit this flower. Humble bees alone visit red clover, as other bees cannot reach the nectar.

In a word—no bees, no seed; no seed, no increase of the flower. The more visits from bees, the more seeds from the flower; the more seeds from the flower, the more flowers from the seeds.

Nearly all our orchidaceous plants absolutely require the visits of insects to remove their pollen masses and thus to fertilize them.

Twenty heads of unprotected Dutch clover yields 2,990 seeds. The same number protected from bees produced not one seed; 100 heads of unprotected red clover yielded 2,700, and the same number protected from bees not a seed.

THE SEASON IN THE PROVINCE OF QUEBEC.

The rain of the past few days has had a revivifying effect upon garden and farm, although perhaps to a little extent causing a suspension of operations. The unusual length of the winter season had retarded vegetation, and the frost still remained deep in the earth, but the late warm rain will have caused it to disappear. The grass begins to assume a vernal aspect, and a few fine days will land us into all the glories of Canadian summer.

—One poultry fancier cured chicken cholera by feeding every other day for two weeks bran mash, in which was a liberal dose of the garden pepper. One old biddie was determined to die. She was crouched away in an out of the way spot. He sought her, gave her a whole pepper in doses an hour apart, kept her in a warm place, and in a few days she gave notice that she could take care of herself.

—So long as dairymen travel through the country, pick out the best milkers, and keep them for milk till they grow old, without raising a single calf, no improvement of our milking stock need be expected.

Notice.

We expect to leave for a trip to Europe, as soon as the present paper is ready to be mailed to you. We hope to gain information regarding seeds, stock, and other subjects that will be of value to our readers. Our clerk and assistants will be able to attend to the principal business connected with the office. During our absence, if anything of a special nature that requires our personal attention is needed, it might remain until our return, or be marked on the envelope, "For W. Weld Only." We expect to return about the latter part of July, any communications addressed to us up to middle of June will find us by directing thus—W. WELD, Tenterden, Kent, England.

Place a 6 cent stamp on your letter.

The present season will be a busy one for farmers, the Grange movement will progress more rapidly in the autumn, the Canadian organization will then be at work. We regret that we shall not be able to attend gatherings for some weeks on account of absence, however, if the existing grangers agree in a suitable basis before our return, we shall be pleased to aid them in anything for the advancement of any measure for the progress of the farmers. We offer to aid any other four granges in advancing the funds for the printing of the necessary documents to establish our Canadian organization.

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STOCK & DAIRY YORKSHIRE AND CHESTER WHITES.

The Practical Farmer says:—One of our correspondents and subscribers in Montgomery county enquires of us about the propriety of crossing the pure Yorkshire swine with our white Chesters.

THE ENGLISH CHEESE MARKET.

At a recent meeting of the Northwestern Dairymen's Association, O. H. Wilder, of Evansville, Wis. who has just returned from England, where he went to dispose of a large lot of cheese, addressed the meeting.

FEED FOR SHEEP HERE AND IN ENGLAND.

The Climate in Central New-York is such that we have to treat Lincoln sheep, however pure, different from what they do in England. We have to shelter them during the winter, and their feed is not confined to turnips and oilcake, as it is in England, and the consequence is that the sheep undergo a "climatic change."

CHEESE HINTS.

The New York Merchant and Bulletin, in speaking of cheese prospects, says: Cheese has continued in good demand for home and export trade, and the market, without advance, has become stronger, and the supply has been steadily reduced.

in want of good new, and paid 16c for full cream, while they do not want skims at all; and dairymen would find it to their interest to make the former, as they will not only find much more ready sale at full prices during the spring, but they will not hurt the reputation of their factories, which must be recovered at their cost later in the season.

There is practically no limit to the consumption, and hence to the production of fine goods; for a market was never known to be glutted with these goods, but always with undesirable stock, which always has an effect to depress any market.

SMALL CHEESE.

Gardner B. Weeks gives the Country Gentleman an account of a recent visit to several Chautauqua country cheese factories. At three of these factories considerable attention has been given to making small cheese.

VALUE OF CORN FOR HOGS.

A writer in the Cincinnati Gazette gives the following account of the increased profit of feeding corn on the farm to swine instead of selling the grain in market. His experience is as follows: In August, 1872, I bought thirty-seven head of hogs at \$4 per cwt., the average weight being 126 lbs.

A form of the potato disease which has prevailed for several seasons in certain departments of France, exhibits itself in a peculiar weakness of growth in the shoots, which attain their usual length but are wanting in thickness.

TRAVELLING STALL-FED CATTLE.

The Irish Farmer's Gazette, in a late issue, gives some very good advice on the subject of giving suitable exercise to fattening cattle that have been stall-fed, hence rendering the feet tender, at the same time that the confinement unfits the animal for the fatigue of travel.

When fat cattle are taken out of stalls in which they have been tied up for some months, they get excited and set of racing along the road, when the result may be a "slipped shoulder" or some other serious injury.

In former times, when fat stall-fed cattle had to travel on foot several days before they reached the market, special preparation was essential, and no prudent man would neglect it; but since cattle have been carried chiefly by rail this precaution seems to be very much overlooked.

Some days before it is intended to send fat cattle away from the farm-yard they should be let out for an hour into a well-littered court yard or well-fenced paddock, and allowed to take exercise, being carefully watched all the time, lest any injury should befall them.

CHEESE-MAKING IN THE WEST.

The Monroe (Wis.) Sentinel gives some interesting statistics in regard to the extent of the cheese manufacture of Green county, in that state. There are ten factories in the county, and their products for 1873 (including some large private dairies) are summed up as follows:—

Total Limburgh cheese 534,000 lbs.

Total Swiss cheese..... 152,000 lbs.

Total Yankee cheese..... 450,000 lbs.

Total..... 1,136,000 lbs.

It is estimated that the milk of 4,260 cows is consumed in this product of the Green county cheese factories, and the Sentinel says:—

Upon this the Chicago Inter-Ocean remarks:—"While the old country is deeply exercised over the question of the rates of transportation on western products to the seaboard, the Green county farmers are partly solving the problem by converting their crude, having it produced into more valuable and less bulky substances. A great victory over transportation is achieved by the farmer who converts fifty-six pounds of corn into three pounds of cheese.

CANADIAN BEEF IN ENGLAND.

For the last few days, and especially on Saturday, a curious sight has been seen at the bottom of Mount Pleasant, opposite the Adelphi Hotel. There have been crowds around the wholesale provision shop of Mr. Wm. Britain, engaged in inspecting the cutting up of sides of prime beef, and afterwards in purchasing pieces for consumption.

On enquiry it was found that Mr. Britain had received by the Allan steamer "Caspian," which arrived in Liverpool last week, a very considerable consignment of fresh Canadian beef, which was being disposed of at the moderate prices of from 6d to 7d per pound for the prime part.

The packing of beef in this particular manner will, of course, only be available during

the winter season, but the winter season happens to be that in which, through the extra cost of fuel, domestic economies become requisite just at the time when an extra consumption of meat is a necessity of healthy life.

It is understood that the present shipment is to be followed by others on a larger scale. As to the meat itself, it is well known that careful housekeepers hang up their meat at this season of the year, for a time as long as that occupied by an Atlantic voyage, to secure the tenderness which is so great a desideratum at English dinner tables.

N. E., Dayton, Ohio writing to the Live Stock Journal, says:—It will certainly pay to judiciously soil cows on a farm. There is no other way by which so much milk can be produced on a given number of acres.

REARING STOCK.

One thing must be borne in mind, that to be successful, a steady course must be pursued and that course onward—towards perfection. I will not say to perfection, for that will not be attained by any person in his lifetime.

Those of us who are active and not readily discouraged, are easily understood, and we must necessarily have a certain amount of success in our undertakings, or we shall be in time despondent, and our efforts will be fruitless.

BUTTER IN FRANCE.

If our dairymen find a spur—an eye-opener—a lesson which speaks volumes in three words—here is one at the head of this article. Butter is actually brought from France and sold by the New York dealers.

All this butter is made from choice cows, chiefly fed on clean sweet food; the milking is done in the cleanest manner. The milk is handled as carefully as though it were nectar; the cream is churned with the utmost care by clock and thermometer; the butter is worked with skill, and is made up in shapely cakes which do not require to be cut when brought to the table.

TO BANISH RATS.

Rats can be banished by covering the floor near the rat hole with a thin layer of moist caustic potash. When the rats walk on this it makes their feet sore. These they lick with their tongues, which makes their mouths sore, and the result is that they not only shun this locality, but appear to tell all the neighboring rats about it, and eventually the house is entirely abandoned by them.

Forest trees are active and not readily discouraged, and we must necessarily have a certain amount of success in our undertakings, or we shall be in time despondent, and our efforts will be fruitless.

Those of us who are active and not readily discouraged, are easily understood, and we must necessarily have a certain amount of success in our undertakings, or we shall be in time despondent, and our efforts will be fruitless.

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Garden, Orchard & Forest.

VALUE OF TREES.

Forest timber and all vegetable productions are active absorbers of radiant heat, but do not readily reflect it.

When the trees have been almost entirely removed, a serious decline in the supply of water is observed.

On the other hand, restoring trees by planting has had the most beneficial effects.

APPLES.

Those of our readers who are preparing to compete for the Essays on Orchard Culture, proposed a few weeks since, might derive some facts worth making a note of by a trip up the Annapolis river next June.

Apple trees will grow and thrive on any soil except a wet one, if one condition be complied with, that is, if the land receive annual cultivation.

What is understood by good culture is not only the art of knowing, and when and for what purpose to prune, but growing some kind of root crops between the rows.

Some Fruit Trees.

There passed through the Custom House at Horton, last spring, six thousand, seven hundred and some odd trees; these, with the quantity distributed from the nurseries of Berwick and Gaspereaux will exceed ten thousand.

PLANTS IN SLEEPING ROOMS.

The question whether or not plants are unwholesome in a sleeping room has called forth a curious diversity of opinion.

The professor analyzed volumes of air taken about noon from different parts of the college greenhouse containing 6,000 plants, after it had been closed for twelve hours, and found

that the carbonic acid amounted on the average to 1.30 to 10,000 parts. He then did the same just before sunrise, and found the average to be 3.94, thus, he thinks, clearly demonstrating that the accumulation of noxious gas was greater in darkness than in daylight.

THE CALLA LILY.

We do not know of a more beautiful winter blooming plant than the old-fashioned Calla Lily. It succeeds so well in the window, needing very little care, excepting an abundance of water and an occasional dusting of the leaves, that we recommend every lover of flowers to try it.

- 1. After blooming, dry off very slowly but thoroughly.
2. Keep the roots simply from drying out entirely during the season of rest.
3. Start slowly in light, rich soil, with little water at first, increasing as growth increases.
4. Plunge, if possible, in stagnant water until wanted for the house, or there is danger of frost.
5. Re-pot in rich mucky soil.
6. Give plenty of water while the plants are growing and blooming.
7. Give plenty of light and sunshine.

THE FRUIT GARDEN.

The apple is our standard fruit, and may always be relied on with reasonable care. The first care is good food. Some talk about too rich soil. We never saw the soil too rich for the apple. Where any trouble arises in apple culture, it will be safe to attribute it to other causes than rich soil.

We have no objection to trees growing in grass, but it will lead to misfortune if people do it because they think the soil is too rich. No matter how rich the soil may be for an apple orchard, if it is put in grass, always top dress when you have the chance to do it cheaply.

Kitchen ashes make excellent top dressing for apple trees when put close under the apple trees as far, or nearly, as the roots extend.

The apple borer leads to starvation oftener than poor soil. The supply of food is cut off by every move the borer makes. They work at the surface of the ground. Look for them now. If you have no time, set the boys and girls to work. Say they shall have no apples for Christmas or birth-day present if they do not.

In grape raising people seem to go to extremes in management. A few years ago the poor plant was in leading strings. I dared not make one free growth, but it was pinched and twisted into all sorts of ways.

and yet this art is founded on a very few simple principles.

For instance, leaves are necessary to healthy growth; but two leaves three inches wide are not of equal value to one leaf of six inches. To get these strong leaves see that the number of sprouts be limited.

POTATO TUBERS.

The old idea was that a tuber, as a whole, was but one seed, like a kernel of corn. But we now consider a potato tuber like an ear of corn containing many seeds, each of which is capable of producing a plant equal in strength and value to the combined.

No one will suppose for a moment the yields reported in the case of the Bliss prizes for the Early Vermont and Compton Surprise could have been secured by planting whole tubers.

ORCHARD GRASS OR COCKSFOOT.

A correspondent of the Rural Sun says: No farmer can afford to be without Orchard Grass. For pasture, Orchard Grass is worth about twice as much as clover.

By cutting Orchard Grass twice, it will always yield enough more than timothy to pay you handsomely for your trouble, and then leave the land in better condition than the timothy.

Some people go so far as to say that Orchard Grass is of very little account unless it is mixed with clover. I made an experiment on a piece of ground in which there was no clover, and by careful working killed all grass.

If you wish to raise seed, you must sow it by itself. Orchard grass and timothy should never be sown together, as there is nearly a month's difference in their time of maturity.

A correspondent of the Live Stock Journal, writing on the subject of soiling as practiced on the celebrated Beacon Farm, Long Island, says:—

One of the most important products raised on the Beacon farm for soiling, is Orchard Grass. I have done my best, both by precept and example, for the past thirty years or more, to induce my brother farmers to cultivate this highly valuable grass much more extensively than they have done; but I regret to say with very little effect.

What should I have done were it not for the Orchard Grass this season? Without it my barns would have been comparatively empty, like those of neighbors and friends.

The great merit of Orchard Grass is that it comes forward very early and rapidly, and gets its growth before any drouth common to our climate can affect it.

FARMERS VISITING EACH OTHER.

Better, but not a substitute for the interchange of experience through the papers by farmers, is the practice of visiting and talking with each other; examining each other's means and methods of doing business, and exchanging suggestions on the farm and stock management and relative to devices for facilitating work.

Scarcely any farmer will consider his time lost who devotes a certain portion of it each year to this method of acquiring information and suggestions for use in his own husbandry; for there are some things farmers must learn which no amount of newspaper teaching will describe; nothing but actual observation will answer.

WHAT CONSTITUTES A CAR-LOAD.

Below will be found a statement showing what constitutes a car-load, and though it may not exactly suit everywhere, it approximates so closely to a general average that shippers hereabouts will find it a great convenience as a matter of reference:

As a general rule 29,000 pounds or 70 barrels of salt, 70 of lime, 90 of flour, 50 of whiskey, 200 sacks of flour, 6 cords of hard wood, 7 cords of soft wood, 18 to 20 head of cattle, 50 or 60 head of hogs, 80 to 100 head of sheep, 6,000 feet of solid boards, 17,000 feet of siding, 13,000 feet of flooring, 10,000 shingles, one-half less of hard lumber, one-fourth less green lumber, one-tenth less joists, scantling and all other large timber, 340 bushels of wheat, 360 of corn, 680 of oats, 400 of barley, 360 of flax seed, 350 of apples, 360 of Irish potatoes, 1000 bushels of bran, form a car load.

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The Apiary.

Summer Management of Bees.

Prize Essay.—BY A. C. ATTWOOD.

In order to give directions about the summer management of bees intelligently, it will be necessary to divide it into three heads, viz., spring, summer and fall management. I wish to be considered as addressing those only who use the movable comb hive, from the fact that nearly all intelligent apianians are now using them, or intend to do so shortly. In this enlightened age of the world I consider it a waste of strength to pay respect any more to the old box hive, only the same as we do now to the reaping hook and the scythe, viz., a good old thing of the past.

1ST—SPRING MANAGEMENT.

After the bees have had a few good flies, choose a nice warm day in April, provide yourself with a clean hive—the same make as those your bees are in, lift the frames and bees out of the hive, one frame after another; examine each card as you take it out, and if you see brood you may be sure they have a queen; if you do not see brood or eggs, ten chances to one they are queenless; if you see a lead colored mark or streak across the brood, about a quarter of an inch wide, and it feels soft to the touch or appears hollow, it is a worm gallery. Pick it off with your knife, and you will be sure to find the fellow at either one end or the other.—If the combs are not exactly straight, now is the time to straighten them, and as you take them from the dirty hive, place them in the clean one. Notice the amount of honey, and place the cards of drone comb as near the side of the hive as possible, or as far as you can from where the queen is now depositing her eggs.

After the bees are all transferred from the dirty hive to the clean one, scrape the inside of the dirty hive well with a knife; have a tub of hot water ready, and give it a good washing inside and outside; do not spare hot water and elbow grease. Then go to another hive and transfer as before, and so on until you get over your entire apiary.

Should any be found queenless, unite them with a stock that have a queen. If any are found short of honey, exchange cards with one that may have an overplus; if you have none that can spare any, mark the weak stock for feeding. If it is found by the middle of May that some stocks have still a large amount of old honey that they will not require, choose a warm day and remove it with the Extractor, for it is occupying valuable room which the queen requires for brood.

Your spring work is now over, and with the blooming of the white clover begins your SUMMER MANAGEMENT.

If surplus boxes are used, turn them on, but no person will ever think of using boxes any more if they ever saw an extractor at work; at least five times the amount of honey can be obtained under the same circumstances by its use. June and up to the 6th of July is the time to run the extractor. Go around your hives every fourth day during this time, and take all the honey you can get out up to the end of June, but in July be cautious. Watch the clover; if a drouth sets in, as it frequently does, you must hold off, and in any case only empty say two cards in each hive towards the last of the season.

June is the swarming month; if natural swarming is depended on, keep the empty hives that are intended for use in a cool place; when the bees are in the air, if it has been your custom to rattle bells, tin pans, blow horns, &c., you may continue it or not, as you like, for the custom is like the doctor's bread pills, it will do neither good nor harm.

I never knew a swarm to go to the woods without first clustering. After they have all clustered, fill your garden watering pot at the pump and sprinkle the whole of it right down upon them. This has the effect of lowering the temperature of the cluster; they will not be so apt to sting, and they will be easier hived and be more likely to remain in. Be sure to get all or nearly all the bees in off the limb, for should the queen be left out the bees will not remain in half an hour.

But artificial swarming is far ahead of natural in many respects, and it is so simple that any person can do it. There are various ways of doing it. My plan is ten days be-

fore the bulk of my bees are ready for swarming, I take my strongest stock, find the queen and place the card she is on, bees and all adhering, into the centre of an empty hive. Fill up on each side with empty frames and place the hive on the old stand; close up the opening made in the other hive by taking out the queen, and put in an empty frame at the side and place this hive on a block say ten yards off; they being now in a queenless state, will start a lot of royal or queen cells. I have seen as many as 32 in one hive. Eleven days after, these cells will be just ready to produce each a queen; then divide another stock as before, only instead of leaving the one-half queenless, you go to the hive now full of royal cells, cut out one with a piece of comb about two inches square connected with it, and insert it in a centre card of the newly divided hive, and so on divide up all your stocks, giving each queenless half a royal cell as before.

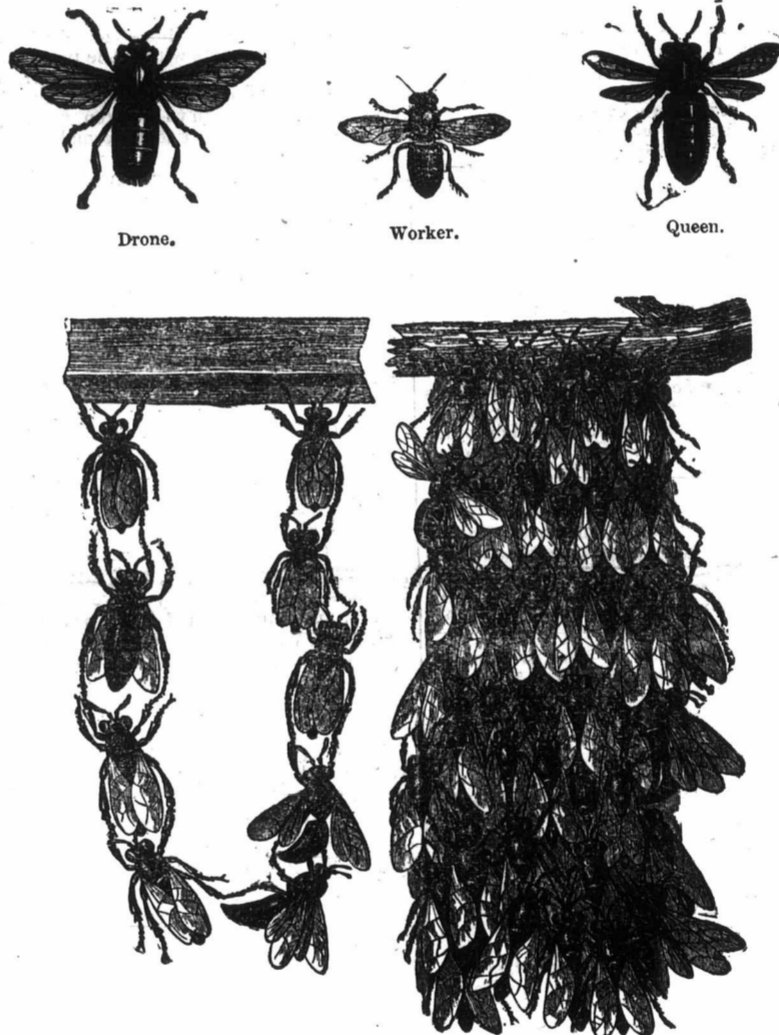
Just before your young queens begin to lay, empty most of the honey out of the centre cards with the extractor; it will give her room, which is very necessary. Have an eye to your hives about the time you ex-

getting ahead too fast, after it is capped over, with my honey knife I shave about a quarter of an inch off the top of their heads; this is a wholesale decapitation, for at one stroke I can guillotine thousands. Place the card down in the hive again, and before the day is over the bees will clean out the cells of the headless trunks, and in almost all cases will fill them with honey next time.

After the swarming is over and you see that your young queens are all laying, it may be said that the management for the summer is over. Let them fill up all they will, and with September we begin our

FALL MANAGEMENT.

Provide yourself with or borrow a scale of some description; weigh every hive, and take a note of the weight. If your empty hive weighs 30 lbs., then allow 7 lbs. for bees and comb, and in September the stock ought to turn the beam at 65 lbs. If you find any are over, you can exchange cards with some that are not up to weight. If any require feeding, now is the time to do it. A very ready way is by making a thick molasses out of No. 24 coffee sugar; feed it



BEES CLUSTERING FOR A SWARM.

pect your young queens to begin to lay, for sometimes they are lost in their "bridal tour," and if taken in time they can be supplied with another—a royal cell or a young brood; but if not attended to, they will be sure either to get robbed or fall a prey to the ever alert miller, whose name is used by unprincipled bee-keepers into buying or frighten verdant bee-keepers into buying one of their so-called miller proof hives.—If bees are at all strong and are never allowed to become queenless, the millers are no where. There is no such thing as a miller-proof hive in existence; wherever the bee can go the miller egg may go. The only miller-proof hive I know of is almost any hive with a good stock of bees in and never allowed to become queenless.

During the swarming season a large number of drones are raised by each hive in an apiary; not one in 5000 that are raised are ever required. These fellows all consume each about a drop of honey every day. If we can destroy them in embryo it is better to do so than to allow them to mature and live on the wealth of the hive for three months. My plan to get rid of them is during June, whenever I see the drone brood

to them at night in a plate placed on the honey board, under the top corner. Feed them regularly until they turn the beam at 65 lbs.

As you are looking over your hives for the last time, see that every card has a centre winter passage; if you see some that have none, have a small stick say half an inch in diameter in your hand, and with it poke a hole through the centre. Your fall work is now over; you may let them stand until you fix them up before putting into winter quarters.

—Lord George Manners, of England, formed an "industrial partnership" with the laborers on one of his farms, about two years ago. The experiment was a secret one, but its complete success has led Lord Manners to publish an account of it. He won the good will of his tenantry and made more money than he had before. Half the profits above ten per cent. are allotted to the laborers. Their share for last year was about \$184. As their wages during the same time had aggregated \$3,377, the "dividend on labor" was a trifle more than five and one-half per cent.

AGRICULTURAL

WHEAT REPORTS.

The Agricultural Department, in its report for April and May, gives the results of its correspondence relative to the condition of the wheat crop in the several States of the Union. It says four-tenths of the wheat harvested in the United States is sown in the fall, the other six-tenths in the spring. The four States of Wisconsin, Minnesota, Iowa and Nebraska produce 90,000,000 bushels, or about one-third of the whole crop. The Department calls this "one-fourth," but that would make the whole crop of the United States 360,000,000 bushels, when it really is not over 270,000,000 bushels, if it actually reaches that amount.

The reports indicate that wheat in the New England States is a good deal injured, but the crop there is too light to affect the general result. One-third of the whole crop of New York is grown in the counties of Ontario, Livingston, Niagara and Genesee. There, and in the rest of the State, wheat has suffered a good deal from freezing and thawing.

From New Jersey, Pennsylvania, Maryland and Delaware the crops are reported in good condition, with a few exceptions. In Virginia the wheat is reported good. In the Southern States the crop is reported on favorably. In Kentucky the wheat has come through the winter in nice condition. In Ohio two-thirds of the counties have the winter wheat promising well. The northern counties have suffered from the winter.

Of Michigan the report says: "Very few counties in Michigan have any cause to lament the condition of winter wheat. With the exception of returns from Newaygo and Cass, and those of Branch, Berrien and Lenawee, as to clay lands, all are promising, most of them to an unusual degree. The opinion in St. Joseph is, 'The best in ten years'; 'the best in twenty years' in Calhoun; and 'never better' in Barry and Jackson. In the latter 'the foot-stalks are very large, the leaf broad; the stools stand square and firm.' In Van Buren timber lands make the best show."

This seems to us a more favorable showing than an actual inspection at the present time promises. There are very many counties, and in fact all the clay lands of such counties as Genesee, Macomb, St. Clair, Lenawee and others, in which the wheat crop has been either wholly destroyed, or it has been injured to such an extent that not one-third of an average crop can be expected. The light friable soils have done well, and there the wheat is promising fairly.

From Illinois and Missouri the reports of the fall sown wheat are encouraging, but not without some drawbacks. In Kansas the wheat crop is reported as good.

From California the reports are conflicting. Some are quite favorable and others are discouraging. It is yet too early to pronounce upon the general crop of the State.

Summing up the returns so far, we think the produce is equal to about seven-eighths of a full crop of winter wheat, but as this is only one-third of the whole crop, we will have to wait and see how the spring wheat will turn out before settling whether there will be an average production or not.

This report also gives the results of some inquiries into the advantage of drilling over broadcast-casting wheat. So far the report indicates that there is more success with the drills, but the report has not exhausted all means of inquiry as yet, and we will look this over more carefully and examine the returns made to the Department.—Michigan Farmer.

The *Chemical News* ascribes the potato rot to a deficiency of lime and magnesia in the soil. Different observers state the percentage of magnesia in the ash of sound tubers at from five to ten per cent; in the diseased tubers an analysis shows only 3.94 per cent. Analysis of sound tubers shows over five per cent. of lime; but in the ash of diseased tubers only 1.77 per cent was found. A similar observation was made some years ago by Professor Thorpe, with regard to diseased and healthy orange trees: in the former there was a deficiency of lime and magnesia.

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NIGHT SOILS.

Night soil is a valuable and extremely powerful manure, richer in nitrogen than horse or cow dung. It should be deodorized before using, by sulphate of iron or powdered charcoal. The use of charcoal for deodorizing night soil is attended with peculiar advantages, as it is of itself, from some cause not entirely ascertained, one of the best auxiliary manures known to agriculture. Wherever charcoal is present to a considerable amount in the soil, there grapes and all kinds of fruits flourish luxuriantly, and mildew is unknown. Charcoal and gypsum are the best deodorizers of night soil, as they both fix the ammonia. Lime should never be used with night soil, nor indeed in the composting of any animal excrements, as it drives off the ammonia. As before stated, plants take up their food in the liquid and the gaseous condition, which of itself, shows conclusively that the urine of all animals should be given to the soil.

British Columbia.

We herewith present our readers with a representation of some British Columbia scenery, and the accompanying description of the climate, soil, &c.:

Pt. Meadows, Mar. 25, 1874.

To W. Weld, London.

DEAR SIR,—When I last wrote to you I was in a different part of the world than I am at present. I write to you to let you know a little about the country, &c., and to subscribe for the FARMER'S ADVOCATE (enclosed find \$2.) I am about twelve miles from New Westminster, British Columbia, a few miles from the Fraser River. The soil here is very rich, the timber some places is very large, measuring from eight to ten feet through, and over one hundred feet high; other pieces of land are very easily cleared, the timber being small—most all underbrush. There are no Canada thistles here; the worst thing to get rid of is the fern, which grows very thick on the ground and about six feet high. It is pretty hard to kill on new ground, but there are no prickles.

The people here say it has been a very hard winter, but for my part I think it has been very light to what a Canadian one is. We are planting potatoes now, and some plant them in the fall, to get early ones; others leave them in the ground all winter, and dig them when they want to use them. It is a very rapid growth for timber. Apple trees will bear in four years from the seed, and an abundance in eight years. Turnips grow terribly large here; they will average five to the hundred pounds throughout the field, and some will weigh as high as 60 lbs. The grain is the prettiest and best I have ever seen, and in the fall if you wish I will send you a sample of things about the time of the Fair. What we want here is the railroad and wagon roads to open up the country, and then it would be the garden of the world, both for growth and climates.

Parties wishing to come here, the boat for Victoria sails from San Francisco every fifth and twentieth of each month, except when that day comes on Sunday.

Yours truly,

THOMAS HENDERSON,
Late of North Oxford, Ontario.

SPRING WHEAT AND WHEAT CULTURE.

The subjoining article on a subject very important to the farmers of Canada, as well as to those of Michigan, for whom it was written, is especially valuable to us, now that we have before us the report of the winter and fall wheat of the last year. The very low yield of our spring wheat must convince any one of the uncertainty of a remunerative return from wheat, when not sown in the Fall. The editor of the *Michigan Farmer* has also learned the effects of sowing wheat crops without intermission, and admits the superiority of English Agriculture. —S. Spring wheat is but little grown in the State. It is only occasionally that we have

met with it, and then it has been the Mediterranean variety that has been used. Our season of growing is too short to make spring wheat profitable; as a crop of corn, barley or oats pay better, and it is only sown as a catch crop. Besides, we can grow here wheat that requires to be sown in the spring which is of no advantage to us and of very questionable economy. The trouble is that our farming system consists too much of growing as large a number of bushels of wheat as possible off the farm at any cost, and not of growing the largest number of bushels off an acre. If spring wheat is grown as a regular crop, it should have the ground prepared for its growth with just as much care as for winter wheat. Then, if it is to take the place of winter wheat, we cannot see the economy of the change. The wheat grown in the spring must only make more labor at that busy season; then the grain is not so profit-

not call it so much; we will let it go to 25 per cent. Before us we have a table of the area and average under crops and grass in Great Britain and in all the various countries of Europe, furnished by their statistical department. These statements are official and prepared with care. What do we find? In that country, which has given the largest attention to profitable and economical agriculture, and where more wheat is grown to the acre than in any other, what are the proportions of cultivated land compared with the amount under wheat? the total area of Great Britain, not including Ireland, and excluding lakes and rivers, is 55,802,360 acres, of this amount 31,102,620 acres are under all kinds of crops including grass, pastures, meadows, fallows, and other areas used in agriculture, but not woods or forests. The area in wheat of this is stated to be only 3,490,380 acres, or a little over eleven per

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SEED SOWING.

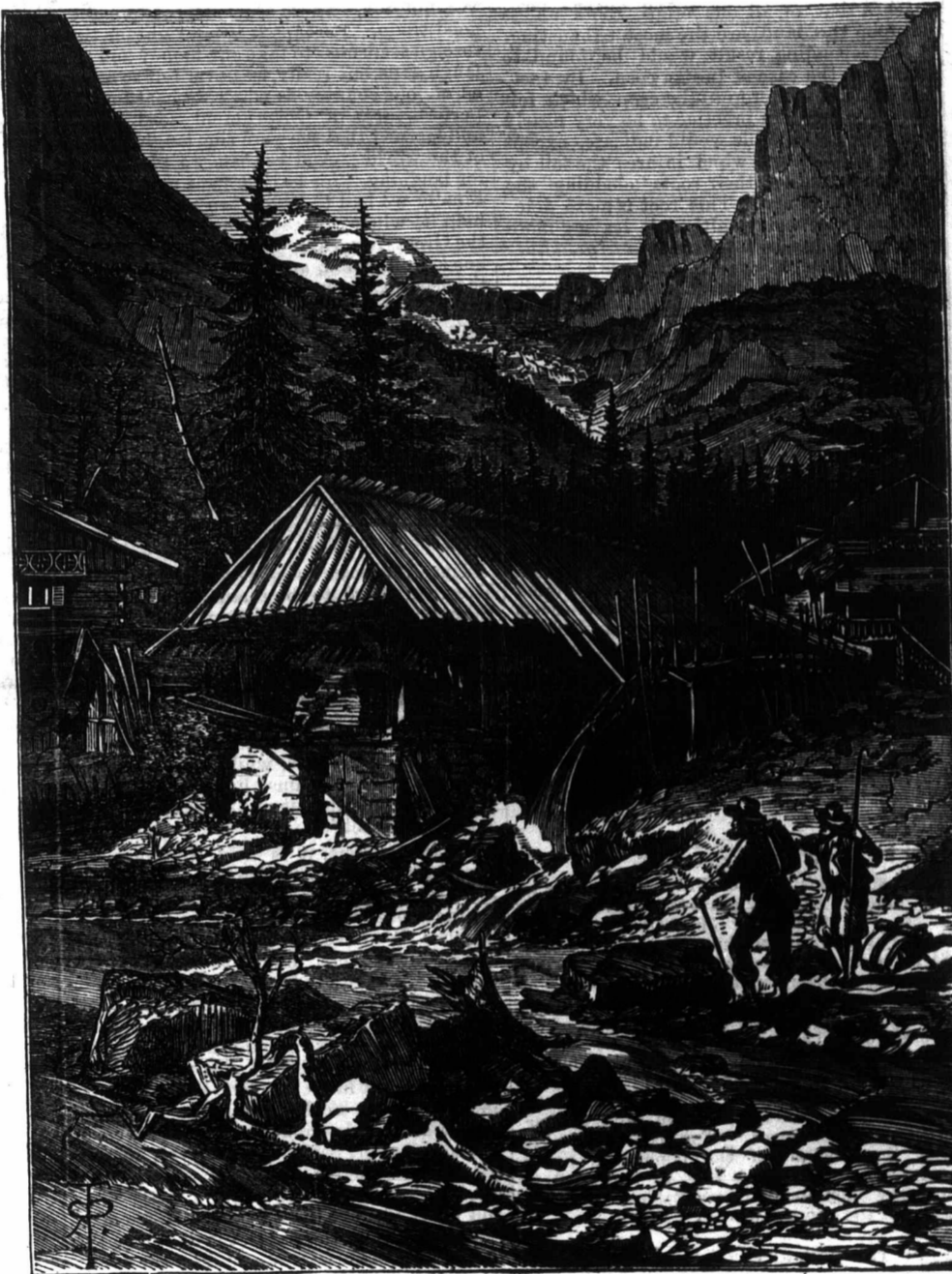
I can easily understand why a large quantity of seed sown never grows, and consequently has a tendency to discouragement. The seedsman generally is blamed; but this is a mistake, for bad as is the seed frequently sold, it must be born in mind that if one-half germinates there is more than enough for one's use. The cause of failure is sowing too deep, and actually burying the seed. In a state of nature all seeds germinate on the top of the ground, protected with a slight covering of fallen leaves or blades of grass. There is a good rule to guide us in sowing seed, and that is, never to cover it with a greater thickness of soil than the diameter of the seed itself. There are, of course, exceptions; but in sowing radishes, for instance, the ground should be forked or dug level. The seed should be sown, and if a shower of rain falls, nothing more is required, as it will break down the rough ground sufficiently to cover the seed. In the absence of rain, you may use an ordinary wooden hay fork to chop the soil—not to rake it as a person would a turnpike road; nor must you confound the wooden rake with the ordinary iron rakes. The latter I consider one of the most dangerous tools in a garden, and, as a six-tined fork is now being manufactured, the iron rake should be condemned altogether. How many amateurs suppose that rakes are for the purpose of cleaning the ground of stones, the very pores of the soil by which light, heat and moisture reach the roots of all plants. The consequence is, you have a surface washed flat by the rain and baked hard by the sun, and as the soil so cultivated is sown, and consequently cannot be disturbed. It becomes an eyesore for months. "But," my friends say, "if I were to adopt your advice, and not cover up the seeds, I would have no crop at all, because the birds would take them." Now there is only one effectual cure against small birds. You may build up dummies, put cross-lines of feathers, stick feathers in oscillating turnips, resort to stuffed ferrets or cats; and all to no purpose, as the birds, after a short consultation, will know that neither of these experiments is any trap at all. But they will never approach black cotton, which must be stretched in lines across the part sown about two inches from the ground, and with all the craft of sparrows, they will never allow themselves to get entangled in cotton. —*Colonial Farmer.*

TESTING THE VITALITY OF SEED CORN.

The *Western Rural*, in anticipation that in some sections of the country where the corn has not ripened as it ought to have done, there may be trouble in the germination of the seed, gives the following opportune advice. Last season much of the corn sown there was an entire or partial failure:

To test the seed, therefore, we advise that those in doubt shell from various ears more or less of the kernels. Mix them together and, counting therefrom ten or a dozen of the grains, plant them in a favorable place for germination. Note how many of the seeds planted grow readily. From the percentage which grow, an estimate may be made of the proper number to drop in each hill, in planting the field, to ensure a stand.

Another plan for testing seed corn is to examine the general appearance of the grain. If it break from the cob, presenting a black appearance at the point of attachment, and, if it leave the cover and filament of the cob, it is probable, but not certain, that the seed is not good. It may germinate slowly, or it may not germinate at all, according to the



BRITISH COLUMBIAN SCENERY.

able to sell, it does not grow as heavy a crop per acre, and is worth less money per bushel. All these considerations make spring wheat of slight value to the farmers in the State, and hence, it is but little cultivated. To force the farm to grow a crop of winter wheat and a crop of spring wheat is certainly what may be called "running wheat into the ground" and not out of it. We now grow too many acres of wheat in proportion to our grass crop, and hence one of the great faults of our system of agriculture. The total area of cultivated farms in Michigan so far as it is made known by satisfactory inquiry is reckoned at five millions of acres, and of this fully 1,250,000 yields a crop of wheat every year, and as our system, owing in part to climatic consideration, requires occupancy of the soil by the wheat crop for two years, under the naked fallow system, we in truth have the wheat crop occupying about one-half of the land in cultivations. But we will

cent. of the total cultivated area; of other grain crops there is besides an area of 5,968,548 acres, or 19 per cent. Of grasses under rotation, of grass meadows and permanent pasture there are 17,582,747, or fifty-five per cent. The amount of grass under rotation alone is larger in extent than the area sown with wheat, being 4,369,818 acres. There are in Great Britain only 706,498 acres of bare fallow.

To sum up the matter and compare for the instruction of our readers and condition of the wheat culture in Michigan with that of Great Britain we may say:

Great Britain grows eleven per cent. of her cultivated land in wheat, Michigan grows twenty-five per cent.

Great Britain grows from her 3,500,000 acres sown with wheat, 84 millions of bushels of grain. Michigan from 1,250,000 acres grows 16 millions of bushels.

Great Britain has 19 per cent. of her cul-

conditions under which it is placed. It is safe to reject such as seed. On one side of the kernel, and that side lying towards the tip of the ear, will be found a groove or indentation; at the bottom of this, and next the surface, and covered with a pellicle or skin, will be found the germ of the future plant. If the grain be bright, and if, upon raising this, the germ be found to be a bright straw color, inclining to white, plump, clear and bright, and of a distinct shape, not wrinkled and shriveled, the indication is that the germ is good; but, if otherwise, it is dull shriveled or imperfect, throw the ear aside.

Another test is to take the ear and break it through the middle. If it break brittle and the cob is bright and firm, and the grains firm, the probability is that it is good. The two conditions between good and bad may be easily discovered by breaking an ear that is good, and examining in the comparison with one that you suspect to be unsound.

Thus a person with a little experience may easily select sound from unsound corn from the crib. Nevertheless, we now advise, as we have before done, that this plan of selecting seed be not depended upon another year. It is far better and cheaper in the end to select the seed at the time of ripening; hang it in an airy place to dry, and therefore keep it dry; and, if hung over a gentle smoke to assist the process of drying, so much the better. The smoke will not injure the corn, but it will tend to render it unpalatable to the hoard of insects that always lie in wait to prey upon it when planted.

WHAT CROPS LEAVE IN THE SOIL.

It is well understood that a root crop is an excellent preparation for land about to be laid down to grass, but it is a very exhaustive crop whether that little be potatoes or turnips or carrots. Either of the latter crops to succeed well, requires a thorough pulverization of the soil in addition to a bountiful supply of well rotted manure, and this treatment of course tells upon succeeding crops. Potatoes will grow well planted on warm manure, and requiring less labor than turnips or carrots, a great breadth of land can be planted, and thus a large piece manured, but root crops exact much labor, and labor at present prices is exhaustive on the pocket.

The following article gives some important information upon the value as a fertilizer of the roots of clover and the different grain crops, and is worth a careful perusal. By sowing clover with grain as a preparation for laying down to meadow, much plant food could be furnished at a small cost, and a system of good farming initiated that would just suit persons situated at a remote distance from market.

STUBBLE AND ROOTS REMAINING AFTER HARVEST.

	Total Dry Substance.	Organic Matter.	Ashes.	Nitrogen.	Potash.	Phosphoric Acid.
Lucerne	9792	8498	1294	137	37	49
Red Clover	8953	7926	1927	194	83	75
Sainfoin	5952	4925	1027	124	48	39
Peas	3234	2560	674	57	11	15
Buckwheat	3290	1730	1560	48	19	11
Rye	3289	3030	1259	66	32	25
Wheat	3499	2896	1604	24	19	12
Oats	3792	3343	1449	27	25	39
Barley	1999	1617	382	23	10	12

The figures relating to a single experiment, are, of course, of only general value; at the same time they are, in a general way, very useful. They show for instance, that the more delicate-rooted grain crops leave comparative little residue in the soil—barley less than 2-5 as much as rye, and only about 1-5 as much as red clover, which, in return for a few quarts of seed, after having yielded an abundant crop, leaves for the enriching of the soil about 4 1/2 tons of root and stubble. Nor is the total amount of material left in the soil of more consequence than the quantity of particular elements. Red clover leaves 193 lbs. of nitrogen, while wheat leaves only 24 lbs. The former leaves four times as much potash and more than six times as much phosphoric acid as the latter.

These comparisons sufficiently explain the great and well-known value of clover as a preparatory crop for wheat and for all other crops which are not manured with nitrogen, potash and phosphates. In the field on which this examination was made, the clover of an acre left enough nitrogen for 116 bushels of wheat, phosphoric acid enough

for 114 bushels, and potash enough for 73 bushels. It should be remembered, too, most of this material is left in the best possible condition for use—as a part of readily decaying roots well distributed through the soil and penetrating it to a considerable depth. Indeed, particularly in the case of clover, there would be a very considerable amount of root below the ten inches to which only the investigations were carried.

Whether (as is unknown) the nitrogen of the clover comes wholly or partly from the soil or from the air, it is certainly taken from a condition in which it is of little use to most crops, and is converted to an available one; so that practically, the clover is a creator of nitrogen in the soil, as it is an efficient purveyor of its latent supplies of potash and phosphoric acid.

Root crops were not included in the examination, but it is well known that they leave in the soil only a few fibrous roots, which can add but little to its fertility; and experience teaches that, of all our crops, roots (unless off upon the land) are the most exhausting. A corresponding result would be found to obtain in the case of Indian corn. In fact, the value of any crop to the crop which follows it is found in practice to be very nearly what the above table would indicate, except in the case of oats, which injures the soil by mechanical action, their roots "clodding" the ground into lumps. This root is more deleterious than barley, although leaving more residue in the soil.—*American Agriculturist*.

ROLLING THE GROUND.

A correspondent of the Germantown Telegraph writes:

On dry or wet ground the effect of the roller is found to be salutary. Plowed and prepared for sowing, dry land is much helped by the roller. The blades of grass spring up sooner and retain a firmer hold in the earth. In a season of drought rolling has saved the crop, when without it the seed would never have sprung from the ground. In wet and heavy ground it is believed the roller, smoothing and hardening the surface, will leave the soil immediately beneath the surface in a better condition to generate the seed. On grass ground that has been heaved by the frost the roller has an excellent effect in fixing the roots. Rolling the ground is also good when the land has been laid down unevenly the previous year. If the land is too dry wait till just after a soaking rain, and it will work capitally. It is a good idea to roll plowed sowed ground before harrowing, as it presses down the furrows that would be turned back and makes the surface less uneven, and the harrow pulverizes it much. We find that on an average not one farmer in four has a roller.

FRENCH AGRICULTURE.

The superficial area of France, according to the official returns, consists of 115,500,000 acres. Of these over 36,000,000 acres are owned by proprietors whose estates cover only 8 1/2 acres upon an average. Over 16,000,000 acres are owned in farms of an average size of 35 acres; over 19,000,000 acres consist of farms of an average of 8 1/2 acres, and of farms of an average of 4 1/2 acres, there are but 43,000,000. Nearly twenty million of the population subsist upon the smallest sized farms; two and a half million upon those of an average of 35 acres, and only one million upon each of her other classes of farms. The consequence is that three-fourths of the population never taste sugar or beef, but live in the greatest economy upon bread and vegetables, and drink water or the poorest wine of cider.

THE GOVERNMENT SEED SHOP.

It may not be known to all our readers that the American Government is engaged in the retail seed business, and that its shop is at Washington; yet it is a fact. For many years the Government has been wasting the people's money in buying seeds,—just such seeds as a person of plenty of money and ignorant of the business would be apt to procure—and sending them to politicians and others, free of charge and free of postage. If any person whose eye this may meet needs a paper of Mignonette, or a package of Pumpkin seed, he can very likely obtain it at this shop by writing to the Congressmen (we have always found kindly inclined,) who will send his order to the boss or clerk in this establishment, and the seeds will be forwarded free of expense, to the receiver, the great American People footing the bill. A few years ago the Government would select some political favorite desirous of a trip to Europe, give him several thousands of dollars for expenses, and something more to invest in seeds. This American Seed Ambassador, on the way,

or on reaching Europe, would inquire for a large seed house, tell the proprietor that he had a certain amount of money to spend for seeds suited to American culture, look over a seed Catalogue for half an hour, leave his money, order the seeds shipped to Washington as soon as ready, and then leave for a good time on the Continent. A story is told in London that one of these Government seed buyers entered a London seed shop while smoking a cigar, and rather lazily lounged on the edge of an open barrel of Onion seed, when, happening to cast his eyes down, he started in alarm, exclaimed, after a word or two that we shall not print, "I didn't know you kept gunpowder exposed in this careless way." Things now are a little different. The leading English and some of the French seed houses send over what we call drummers, but what they call Commercial Travellers, to solicit orders, and the first point these men make for, on their arrival, is the Government Seed Shop at Washington, where they expect to make a good trade. Perhaps it is not right for these foreign seedsmen to take our money and then laugh at us, but really we never felt so ashamed of our country as when we heard of the performances of Government seed buyers, and learned that we were the laughing stock of the world. And yet can we blame them for laughing, "for he that wins may laugh." Finally we had to laugh, too—how could we help it, when we read in an order sent by the Great American Government to a seed house in London, special directions to "put the seed in papers as unlike those of American seed dealers as possible," and to "be sure to give the packages a foreign aspect." No special anxiety regarding the quality of the seeds, but directions thrice repeated about the fashion of the bags, so that they might have a foreign appearance. The Government not only purchased seeds abroad but have them put up in the common paper packages in London or Paris, at considerable expense, so as to give them a "foreign aspect." Is it not time that Congress put an end to this stupid quackery?

The American people are not paupers. They can afford to buy and pay for what they require; and even if they needed seeds, Congress is not designed for a charitable institution; if so, it has done its work very badly. These seeds are sent to doctors, lawyers, mechanics, &c., not one in a dozen having any use for seeds, and bushels have been eaten up in this city, and every city, by the mice and the rats, while many a flock of Brahmas and Cochins have fattened on Government seeds put up in packages "with a foreign aspect."

All this is done, it is said, to encourage Agriculture and Horticulture. We did not know that these interests needed special encouragement at the expense of the whole people. We have always heard of the "independent farmers," and as to the Horticulturists, we have yet to learn of the first one who does not pronounce this system a humbug. Why not "encourage" the Dairy interest, by passing around a few blooded calves; and some Cheshire pigs would not be bad among the farmers. The poultry people should not be neglected; a few Shanghai eggs might be distributed at random over the country; or, perhaps, better yet, incubated at Washington, which seems to be a good place for hatching; and a little glass and putty would suit most of the Horticulturists better than any seeds the Government can furnish, no matter how unlike they may be to American packages. It is certainly a wise thing to charge American seedsmen twenty per cent. on all seeds they import, which, of course, their customers must pay, and then spend this money, which the seed planters of the country have furnished, in purchasing common seeds to give away to those who do not need them, or are too mean to purchase. There may be something about the Washington atmosphere that makes this look very wise, but to all the world besides it seems exceedingly stupid and unjust. The Government has sent us propositions to furnish with Rye and Cabbage and Turnips seed, but we would never have anything to do with the paper concern. If Americans wish to do any thing worthy of their name and character, why do they not send a competent man to explore California, Oregon, and the new Territories, and tell us of the unknown plants that flourish there? While our wise men at Washington are peddling our Turnip seed, foreign countries are sending explorers through our new Territories, and our finest trees, like the Wellingtonians, are

discovered by foreigners, and named after foreigners, to our shame.

Since the Franking Privilege was abolished, about a year ago, there has been no means of getting Government seeds through the mails, unless some one paid the postage, so the mice and rats and chickens have suffered. While writing this, we observed some benevolent Congressman, probably a disciple of Berch, has reported a bill of Congress appropriating money to send these seeds prepaid through the mails, and if the people are willing to have this done, after a proper understanding of the matter, we are very much mistaken in our estimate of their intelligence and good sense.

[We copy the above from an American exchange. Every step taken by our Government, in regard to their Political Gov't form has been worse than the above and of greater injury and injustice to the practical working farmer, a mere bubble, a hot bed for non-producing incapable of writing or talking vassals a charitable institution to pay political friends either personally or for their sons, a bad bed of corruption a school for which the working farmer has to be taken, even to hire scholars. Down with such an injurious and expensive constitution.—Ed. F. A.]

SHEEP AND SHEEP HUSBANDRY.

Lincolnshire Farming.

Before proceeding with the subject matter of this article, I will give an outline of the agricultural aspects of the County of Lincolnshire, England. This county can boast of as good land and as good farmers as any county in England. It is divided into four distinct classes of soils and systems of cultivation.

1. The "woods" on hills are situated in the northern part of the county, and are cultivated upon the four and five course system, viz.: 1st, wheat; 2nd, turnips; 3rd, oats and barley; 4th, seeds—that is, red clover and rye grass one or two years.

2. The "fens" are very extensive, but brains have changed their aspect and nature, and they are "fens" no longer. Their subsoil is salt or blue clay, covered with a garden mold about 8 or 10 inches deep. These "fens" have been reclaimed by a system of drainage which is perfect. Eight years ago they were open common, growing grass, weeds and bull thistles six feet high in summer, and in winter were covered with water, and flocked with countless flocks of wild fowl, affording a livelihood to a few "fen gunners." These fens at this time are the most productive tracts of land in England, in grain, rape, mangolds and turnips; and for profit, I would rather rent a good fen farm, acre for acre, than own and farm the best land in the State of New York. The system pursued in the cultivation of the fen lands is generally five-course, but sometimes the six-course is adopted, in which a crop of horse beans is made to switch in, so that two crops are raised in the six-course.

3. There are tracts of land bordering upon the sea coast, which are known by the general term of "marsh," and these "marsh lands" are the best feeding (grazing) lands in England. They will carry one bullock and one wether to the acre during the grazing season, and there is no other land in the world that will do so, except it be in Holland.

4. The southwest part of the county was, not more than 70 years ago, a big rabbit warren, known then and now as the "heath." By the judicious use of bone dust, turnips are raised, followed with barley, which has given much wealth to the well known family of the Chaplins of Blankney. It is only justice to say that the farm laborers of Lincolnshire are as well paid, if not better than the laborers of any other purely agricultural country in England.

MIXED GRASSES FOR PASTURES.

The value of a meadow consists in the amount of hay it will produce. Therefore, since it must be cut and cured to be valuable, it should be sown to such grasses as will ripen at a given time or nearly so. With pastures, the case is different. The greater number of good grasses you can get into the pasture, the more valuable will it be, and it is not necessary that they mature at, or nearly at, the same time, the pasture will be better if they do not, for this succession will give more feed than if there was a flush of grass during one portion of the season and a scarcity at other times.

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If there were such a variety sown as to give a constant succession of growth, the pasture would always be green, where there was sufficient to support growth. This is not always the case in the United States, and especially in the West. Our annual drouths of July and August are terribly severe on both meadows and pastures. Nevertheless, we believe it will be possible, with care in the selection of the proper grasses for sowing, to have pastures, if not of English greenness, at least such as will compare measurably therewith, except for about a month in the heat of Summer.

As showing the great value of mixed grasses for pasture, it will not be out of place, though this has been heretofore discussed in the *Western Rural*, to note the fact that a single square foot of very rich natural pasture in England has contained 1,000 plants, 640 of them being natural grasses, and sixty of them clover and other plants, the whole number including twenty varieties. Another meadow, irrigated and otherwise carefully managed, contained, in a square foot of sod, 1,702 plants of natural grasses, and ninety-six of clover and other plants.

Again, of showing the necessity of thick seeding, a mixture of twelve varieties of grass, aggregating forty pounds per acre, gave according to Flint, on "Grasses and Forage plants," the enormous number of 54,000,000 seeds, or about nine per square inch. Consequently, to produce the number of plants given in the case where 1,798 plants were found per square foot, we should be obliged to sow about 25 per cent. more seed than forty pounds per acre. From this it is safe to say, first, we sow too little seed for permanent pasture, and also, as a rule, we sow too few varieties.

The following is a list of grasses that it would be well to experiment with for permanent pasture in the West, which we give in the order of their ripening, and with the number of pounds per acre to be sown in the mixture. They are:—Sweet scented vernal grass, one pound; Orchard grass, seven pounds; Meadow foxtail, two pounds; Meadow fescue, three pounds; Kentucky Blue grass, five pounds; Redtop, four pounds; Italian Rye grass, three pounds; Timothy, six pounds; Red clover six pounds; White clover, three pounds. This would give forty pounds per acre, and the principal grasses sown are known to be well in the West. If the object be to produce a thick, matted sward as quickly as possible, the red clover may be omitted, altogether it is possible that this grass would soon be crowded out, in any event, and the pasture would eventually consist of those grasses most suitable to the soil and climate.

If the pasture be much shaded with trees, Blue grass, Orchard grass, Rough-stalked and Wood meadow grass and white clover should predominate, with perhaps some Alsike clover. Whatever the kind sown, if a first class pasture is intended, as soon as the sod gets firm enough to bear the tramping of hoofs, it should be closely fed, and kept rich, but never allow it to be tramped when in a soft and miry state as is the case early in Spring and sometimes after long continued rains. —*Western Rural*.

THE WAR AGAINST WEEDS.

Dr. Macauley, who made "a tour of observation in Ireland in 1872," declares that the amount of weeds in the country is a national disgrace. Fields and road sides are alike neglected, and he is sure it is no exaggeration to say that the direct annual loss from this cause alone is about a million and a half sterling. It appears that an effort is made of late to remedy the evil. The secretaries of the National Education Commission say that their inspectors will be directed to see that instructions are given to the half million children attending national schools as to the necessity of destroying all weeds found on the farms of their parents, or the adjacent highways. The officers of the Church Society, who superintend the education of 70,000 children in Ireland, make a similar engagement.

This is a different way from what our people would go to work. We should petition the Legislature to enact a law against weeds, and after a year or so wonder why some one did not prosecute somebody for having weeds contrary to law.

After all, we do not know but the Irish are taking the wisest course of educating the people to understand that their self-interest lies in their own personal destruction of weeds. Our own country is in itself an evi-

dence of the great power of this intellectual force. It has been remarked by travellers in other European countries, as well as by Dr. Macauley in Ireland, that weeds prevail to a much greater extent in Europe than in America. Here we have in almost every farmhouse, where there is any pretensions to intelligence, an agricultural paper, and in almost every district there is a live agricultural society or farmer's club. Here, and in this way, farmers learn in what consists their true interests, among which they soon find out it is not the permission of weeds to occupy their land. Hence we see so much more clean fields than is usual in Europe; and we think we may say that there is annually an increasing care taken in regard to their extermination.

This is undoubtedly the best weed eradicator. Let there be a continual agitation of the subject. Let every one know how much they lose by weeds, and how easy they are kept down by the "stitch in time" system, and we shall do more to put down weeds in ten years than any prohibitory law would do in a hundred. —*Forney's Weekly Press*.

VEGETABLE MANURES.

"The importance vegetable mould to be used in conjunction with fertilizers was tested as follows: One row with enough mould from the woods to half fill the furrow, with ammoniated phosphate at the rate of 220 lbs. per acre, made 990 lbs. of seed cotton. The fertilizer without the mould made 742 lbs. the natural soil, 432 lbs. The fertilizer with the vegetable mould, made 128 per cent. on production without it, only 71 per cent.; showing that the presence of organic matter in a soil adds much to its productions when fertilizers are used.

"The importance of husbanding the vegetable matter of the soil, cannot be impressed too often or too deeply on the cultivators of the soil. Where a good crop of grass, weeds or of pea-vines or other plants have decayed in a soil, there is enough of all the mineral substances left in an available condition, except phosphoric acid, to make a fair crop of any of the farm products. One thousand lbs. of grass decomposed in the soil will furnish four times as much potash as will be required to make one thousand pounds of corn or wheat, and half enough phosphoric acid, with quite an overplus of all the other mineral substances. The straw of the cereals will furnish more than enough of every one of them except magnesia and phosphoric acid; nearly enough of the former, and one fourth of the latter. To make peas there are enough of all the minerals in grass, with quite an overplus, except phosphoric acid; just half enough of this, and double enough of pot-ash. Pea-vines furnish a superabundance of potash and lime, to make both corn and peas, in fact of every mineral substance except phosphoric acid. There is about half enough of this to supply the demand. There is a sufficiency in grass to make the seed and fibre of cotton, of all these substances except magnesia and phosphoric acid. The stalks of cotton will also furnish enough of all the mineral food except potash, magnesia and phosphoric acid. These three are quite deficient. Thus allowing that the stalks of cotton left in a field weigh as much as the seed taken from them, for every thousand pounds there will be taken away eight pounds of phosphoric acid in the seed, more than is left in the stalk; ten pounds of potash and six pounds of magnesia. And when it is remembered under our system of clean culture, the cotton stalk is about all the organic matter left in the field, and the cattle take off a good portion of this during the winter, it is not wonderful that our lands deteriorate, our crops rust and pursue remain empty. The inference is clear from the above facts, that a good crop of grass and weeds, or other vegetable matter covered in the soil and properly decomposed, will furnish a sufficiency of all the mineral substances, to make a good crop of corn, cotton, or peas, except phosphoric acid, and gradually of its potash and its magnesia: That in a system of rational agricultural, it is quite as important to husband the organic matter of the soil as it is to apply fertilizers of any kind: That one of the most important processes for obtaining soluble mineral food for plants, is to furnish the land with vegetable matter by a proper rotation of crops: That the mineral substances of plants become, in the very process which dissolves them, available for a succeeding generation of vegetable growth, by the extreme mechanical fineness to which they are reduced, and the

action upon them of the ammonia and carbonic acid, especially from their albuminoids during the process of decay. —*Dr. Pendleton*.

LIME AND CLOVER.

Of all plants none seem more dependent on lime than clover, and it will not grow on land destitute of lime. We find by analyzing the ash of clover that of its inorganic or earthy parts there is 25 per cent. of lime, 27 of potash and soda, 6 of magnesia, 3 of chlorine, 5 of silica, 25 of carbonic acid, 6 of phosphoric acid, and three per cent. of sulphuric acid. Thus we see that lime, potash and soda predominate largely in the earthy part of clover. The carbonic acid is supplied by the atmosphere in abundance. From the peculiar habit of the clover plant, it draws its nourishment from sources not available to other plants. Its fibrous and deep penetrating roots search for food to a depth not attained by other plants, while its numerous and broad leaves drink in its organic constituents from the atmosphere, shading the ground from the decomposing rays of the sun and concentrating near the surface of a mass of those very elements needed for the succeeding crops, and the kind and quality more than sufficient to supply their wants. —*American Farmer*.

THE FARM.

Experiments have recently tended to prove that the roots and grains, by being planted much further apart than is usual, will actually yield larger crops than are now obtained. This has been shown to be the case with potatoes, and more recently with wheat. It has been found that the wheat plant increases above the ground in proportion as the roots develop without interference with those of its neighbors. In our experiment wheat thus treated, furnished ears containing one hundred and twenty grains. It was found in the course of the same experiment that on every fully developed plant there is one ear superior to the rest; and that each ear has one grain which, when planted will be more productive than any other. By selecting, therefore, the best grains out of the best ear, and continuing this experiment through several generations, a point will be reached beyond which further improvement is impossible, and permanent type remains at the final result.

SPRING PLOUGHING.

It is certain that land ploughed in the autumn will, all other things being equal, yield better than that broken in spring. This is partly because thorough aeration of the soil is essential to its fertility, partly because the frost has free action to break up the minute minerals and hasten their disintegration and the consequent liberation of mineral elements of fertility and partly because in the loosened earth the surplus water drains quicker away, and the warmth of the sun penetrates sooner and deeper. But many fall ploughed fields are so situated that surface water collects in hollows, and thus nullify all the rest; carefully drawn open furrows for such places should be the subject of first work in spring. In newly ploughed land run the furrows in such a direction as to facilitate drainage, and run the shovel as deep (and no deeper) as it can go without turning up the cold, unfertilized and lumpy subsoil. It will pay.

CONDITION OF WINTER WHEAT.

From the Ag'l Report of April and May, we glean the following: Four-tenths of the wheat sown in the United States is winter wheat. The crop is more promising this spring than for several years past, at some season. In one-fourth of the countries in the Ohio Valley, an unpromising appearance is reported. The reports from Missouri and Kansas are less unfavorable. New York reports a good appearance and every county in New Jersey reports excellent. Pennsylvania reports but four counties unfavorable, and Delaware says one-half better than last year. And so it goes over the states—but few localities reporting adversely. In summing up the evidence in favor of drilling instead of sowing, the former has it by the least ten per cent. The proportion of spring wheat sown is about 40 per cent. of the whole crop. It is grown mainly in Wisconsin, Minnesota, and Iowa. One-third of the crop in Illinois is spring. Forty per cent. of the whole crop in the United States is drilled in, and nine-tenths of the testimony favors the

drill. Five million bushels could be saved annually, by the exclusive use of the drill. —*National Agriculturist and Bee Journal*.

SOOT AS A FERTILIZER.

I have a considerable quantity of soot, which I have saved. How should I apply it as a manure? —*E. E. Delavan, Wis.*

Soot is said to be an antidote for smut; soot is largely consumed in carbon, and contains, also, a considerable quantity of nitrogen, besides salt and lime, potash, soda and ammonia. 10 Pounds of soot have been estimated as equal to one ton of cow dung. It is especially valuable as an application to work off the attacks of insects, and may be sown with profit in the garden, or in fields infested with these pests. It is also efficacious mixed in the proportion of six quarts of soot to a hoghead of water, for watering flowers and other plants, enhancing their bloom etc.

SEED WITH CLOVER.

Some timely hints relative to the sowing of clover were given at a meeting of a farmers' club in Scotland. The speaker said that owing to the small size of the seed a large proportion of them are buried too deeply and fail to germinate. It has been found by experience that the greatest success with red clover is attained when the seed is covered with only half an inch of soil; when covered one and a half inches deep fifty per cent. of the seeds germinate, but at the depth of two inches not a single plant appeared. When clover will show above the surface if the seeds are covered one and a half inches deep, and at three quarters of an inch only fifty per cent. of the seed produced plants. It is necessary therefore, to prepare carefully a soil for clover, and to sow and cover it with discretion. Rolling helps to secure a fine seed bed, and consequently an even distribution.

SALT AS AN AID TO MANURE.

About five o'clock one fine summers 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 wire worm. It is especially favorable to saline plants, such as mangolds, whose ashes contain fifty per cent. of salt. I never sow 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*.

PERMANENT SEED CORN.

John B. Sends, at the New York Farmers' Club, said: I always soak my corn in tepid warm water, in which I dissolve about one pound of saltpetre to two gallons of water, for eight or twelve hours. I do this so that the corn will taste of saltpetre; then draw it off and roll in land plaster. No wise crow, or crow black-bird, chipmunk or any other insect will pull up more than two or three grains before leaving it disgusted. I have tried it for eight years. While two of my neighbors had, last year, their corn pulled badly, mine was not touched. Smoke is next best thing to keep crows away, but the crow and blackbird do not care for it.

IMMIGRANTS FOR MUSKOGA.—The steamer Nipissing, on her first trip to Bracebridge, took up forty immigrants, who intend to settle in the township north of that place.

GOOD PRICES.—At the sale of entire draught horses at Mr. John Thompson's, Pickering, "Earl" was sold for \$1,750; "Prince of the West," for \$2,600; "Lorne" for \$3,075, and "Time O' Day" for \$1,575.

A Western paper says dealers in butter classify it as wool grease, cart grease, soap grease, variegated tassellated cow grease, boarding house breakfast inferior tub, common tub, medium roll, good roll, and gilt-edge roll. The terms are strictly technical.



UNCLE TOM'S COLUMN.

MY DEAR NIECES AND NEPHEWS:

Queen's Birthday is a real good day; don't you think so? I know I used to look forward to the holiday and the fire-crackers and the torpedos and other sports as something just about next best to Christmas. But then isn't it mean to have it come on Saturday or Sunday; of the two Saturday is the worst, for you'd have Saturday for a holiday anyhow, so there's nothing at all gained. But if it comes on Sunday why you generally take Monday for a good time. You will all have spent your Queen's Birthday before you read this, so it's not worth my while to warn you not to get blown up with gunpowder and then get blown up when you get home.

Clarence, May 7th, 1874.

Dear Uncle Tom,—

Before you put this letter in your pocket, please get dear Minnie May to sew it up for you. It is too bad to let you have holes in your pockets that way; you might lose your knife, or maybe some of your children when you put them in there for safe keeping. I would like to mend it for you, and then I know you would let me be a member of your family. I have no big brothers; I have only one twin brother, and he is a little humbug. Perhaps some of your nieces could send you a recipe for making a cement for stopping that hole in your pocket. ANNIE SHERRIFFS.

P.S.—I forgot to tell you that father brought in a lamb this morning that weighed 13 lbs.; don't you think it was most big enough to stop that hole in your pocket.

The following distich is of great antiquity, and although you may not think so, it is good English:

234. Down toothers a sy owuld bed one by.
LILLY CHESTER.

Oakland Farm, Kettleby, May 11, 1874.

Dear Uncle Tom,—

I thought you would be glad to hear that I have planted a lot of shade trees since I wrote to you, and I planted a little one which I call "Uncle Tom's Son."
LAVILLA HEACOCK.

Hattie Haviland sent me some nice plants during the month. She says: "Tell Cora my grandpa thinks a great deal of her and her sister because they live down near where he came from."

235. A duck before two ducks; a duck behind two ducks, and a duck between two ducks. How many ducks were there in all?
H. H.

236. There was a man who was not born, His father was not before him; He did not live, he did not die, And his epitaph is not o'er him.
H. H.

Dear Uncle Tom,—

Ever and ever so many times I have sat down to write to you and beg you to admit me into your family, and now at last I do it. I think it is but fair to tell you that I am very silly and stupid. I will tell you some of my troubles. In the first place I'm not a bit clever; then I'm not a bit pretty, or else I'd send you my picture, and then I'm only five feet, two inches in height. Some people are disagreeable enough to call me a fat, dumpty little rolly-polly, which is too bad, now, isn't it?

Now, on account of all these troubles, I have always wanted such a kind, good-natured uncle as you are, one that wouldn't shrug his shoulders and look cross, and say, "don't be a goose, Emie." But I would rather be a goose than a bear, wouldn't you, Uncle Tom? I like your family; I like Nina, and Cora, and Kitty, and Hattie, but I don't mind telling you that I am a little afraid of them, they are all so clever.

Cora says she is a little homely pug, but I don't believe it, do you, uncle? (No, I don't, not a bit of it.—U. T.)

I have a sister, Uncle Tom, and folks call her pretty, and she is a good deal smarter about games and puzzles than I am. I don't know what she thinks about her big brothers, but if you won't tell, I believe she thinks a great deal of some one else's big brother. Re-

member this is a secret; don't tell any one except the family.

And now, to finish. I want to make a bargain with you. If you will adopt me, by and by, when the warm weather comes, I want you and Minnie May to take a good long vacation, and go around and see all your nephews and nieces, and when you come to see me you shall have a nice ride in my swing, under the big butternut. And now I bid good bye to my cousins and yourself.
EMIE DONEGAN.

Magog, P. Q.

That's all very well, Em, but you're an awful long way off, so you may consider the offer a safe one. If you lived a little closer, there might be some hope of my having that swing under the butternut.

237.—GEOGRAPHICAL PUZZLE.

During the month of (a river flowing into the Danube) I called at an (a river in Switzerland), and found the keeper dressed in a full suit of (a river in Scotland), lined with (a country in Europe), wearing shoes made of (a country in Africa), having soles of (a city in Ireland). A (river flowing into the Amazon) conducted me to my room, where I saw a (mountain in the south of Africa), covered with (a sea south of Europe) cloth, which I removed, and discovered it was covered with (a group of Islands off the coast of Africa) of all sizes and shapes. At noon the landlord blew a (river in Montana), and then we went to dinner; the table was covered with (a sea north of Europe) cloth, and furnished with (a country in Asia). The (group of Islands in the Pacific) served us a (lake in Canada), which had too much (a large lake of North America) in it. We had also (a sea south of Europe) bread, with an (harbor of New Jersey) each. For (an island of the State of Maine) we had (a province in France) and (a river in Africa). After dinner (two capes off the coast of America), and I rode out with a span of (islands in the Pacific). We were much troubled with a strange (island in the Irish Sea), who had a span of (a river in Scotland). As it was getting cold (the cape of the coast of Maine) put on a (town in Hindostan) shawl, and the (cape of Labrador) put on a (sea south of Europe) coat, trimmed with large brass (islands in the North Pacific Ocean).
MATTHEW PARKINSON.

238. I am a little word of only three letters; if you behead me I have a strange meaning; if you cut off both my head and tail, nothing remains, but if only my tail is removed, a whole company will be left. My head, when cut off, sounds like the sea, and my tail like a broad, deep river, and in both my whole may sometimes be found. If spelled backwards I remind you of ship-building, but when thus reversed and my tail cut off, I become more active and energetic than before. With head and tail both off I utter a cry of pain, yet I never spoke a word in my life. Now, who am I and where do I dwell?
MAGGIE A. COOKE.

239. Place the letters contained in row down in such a position as to make one word out of it.

Dear Uncle Tom,—

I hope you will accept me as one of your nieces. I have often thought of writing, but I left it off from one month to another; so now I have made up my mind to write this month, to send a few puzzles and also a few selections for your scrap book, and I also send a few recipes for Minnie May's Department.

Lansdowne.

PUZZLES.

240. My first is in cat, but not in kitten;
" second in glove, but not in mitten;
" third is in whole, but not in half;
" fourth is in cry, but not in laugh;
" fifth is in drake, but not in goose;
" whole is an article of great use.

241. My first is in glove, but not in hand;
" second in sea, but not in land;
" third is in friends, but not in foes;
" fourth is in bud, but not in rose;
" fifth is in summer, but not in fall;
" sixth is in narrow, but not in tall;
" seventh is in arch, but not in bower;
" whole is the name of a favorite flower.

242. My first is in good, but not in bad,
" second is in boy, but not in lad;
" third is in girl, but not in boy;
" fourth is in sad, but not in joy.
" whole is a precious metal.

243. I am a word of three syllables; my first is in a valley, my second is an indefinite article, my third is a species of merchandise, and my whole is one of the United States.
M. A. C.

Whitby, April 20, 1874.

Uncle Tom,—

Not much improved in my writing, am I? Just like all the rest of the Canadians. Now, Uncle Tom, I guess I'll rate you; why didn't you put more of my poems in, and why didn't you give me the prize? I fully expected it. Now, do a little better for me this time. I am a new niece, but you must excuse me for being so bold. I do not think that you welcomed me so warmly as you did some other new nieces and nephews.
Yours not truly,
MAUD MULLER.

P. S.—And unless you do welcome me next time I guess I'll quarrel.

ANAGRAM.

244. Onhro nda ewaf fmor on dictionon eist cat ewil you trap, heter lal het rohon iles.
M. M.

245. My first is cold and frozen,
" second is seen on the ground;
" whole, when the weather is frosty,
Comes down with a pattering sound.
ADDIE G. BRAY.

246. There is something in Amsterdam that comes twice in a moment, once in a minute, and not once in twenty years.

247. Two O's, two N's, an L and a D: riddle out that and tell it to me.
A. G. B.

Many thanks to Rose Widdifield for sending me plants and a very pleasant letter. Florence A. Baxter says she will send her picture as soon as she gets it taken. That is right; I want a photograph from every one of you, for all the old family pictures are gone, and I must get up another one, and I want all of my nieces and nephews in it.

248. My first is in corn, but not in wheat,
" second in turnip, but not in beet;
" third is in odor, but not in smell,
" fourth is in water, but not in dell.
" whole is a bird.
F. A. B.

Ingersoll, May 11, 1874.

Dear Uncle Tom,—

I am going to tell you about a sleigh ride I had last winter. I was staying a week with my grandpapa at the time. One of my cousins hitched the old mare to the little hand-sleigh, and wanted his brother and sister and I to get in and have a ride, so we got in, and away we went. It was rather rough where we were, and we would go up and down, up and down over the little hills; we thought it was fine fun, but the old mare did not like it very well, so she kindly helped us out very suddenly, and left us to pick ourselves up. I can tell you there were a few pale faces at first, but we enjoyed it very much afterwards.

Grandpapa said that if he was allowed to vote he would vote for Cora, and he would also vote for her to come up to this part of the country, for oh! it is so cold and the snow so deep. No doubt she thinks she has good times down there, but that should not stop her from coming to where she might have better. Grandpapa came from away down there, a great way below where she lives, and thought he had splendid times, but experience has taught him that we have better times, especially the big brothers that have to wade through the snow and face the keen wind. You will be getting so tired of me, so good bye.

Your niece,
HATTIE HAVILAND.

Come, come now! Clear the track and give us elbow room. You, Uncle Tom and Minnie May, just listen to me a minute. I don't want them other cousins to have all the good things to themselves. (Is Minnie May Mrs. Uncle Tom?) I ain't going to tell you how old, ugly, short or tall I am, for fear you shove me out.

I want to know if you all know how to make picture frames out of straw. I'll tell you how we do them. We select the straws as near of a size as possible; then some day when mother is dying black, we put in a few straws (although she does sometimes say: "child, do go away with your straw, and don't spoil the dye.") Then we take two black and four or five white straws, and sew them together from side to side with some fine cotton, being careful to hide the stitches as much as possible. Then we cut them an inch or two longer than the picture, so that the sides and ends cross each other; then we take short pieces and criss the corners. They make very pretty frames for photographs or small pictures, and are very cheap, I am sure.

We make moss baskets to hang in the windows, which look nicely. Take old hoop skirt steel and form into any shaped basket you like; then line with a good coating of nice green moss; fill in with earth and plant any running vine in it you like. This, suspended by cords from the ceiling or windows, looks very pretty.

Last summer we had one in which we planted morning-glories to climb up the cord, and geranium to run down over the basket. The morning-glories grew on a smaller scale than they do in the garden, and continued blossoming late in the fall. You would not believe how pretty they look, unless you have seen the like, which I suppose the most of you have, and may not thank me for my old-fashioned notion.

Good bye, dear Uncle Tom, Minnie May and cousins innumerable.
Your country cousin,
SLAM.

ANSWERS TO MAY PUZZLES.

210—When the spring opens out the blades,
211—You sit on one and stand on the other.
212—Knees, because animals were made before men. 213—Thou-sand. 214—Rome. 215—Maple. 216—Weston. 217—Maryland. 218—Ohio. 219—Hattie Haviland. 220—Mary. 221—Rat, hen. 222—Because he can't see through. 223—A tree. 224—Needle. 225—Windsor. 226—Venice. 227—Paris. 228—Spain. 229—Kingston. 230—Maid, aid. 231—Wheat, heat. 232—Hare, a. e. 223—T-h-a-t.

Uncle Tom's Scrap Book.

Farmer Downs was out in his orchard the other day, and was taken all aback by seeing his bull rushing down upon him full tilt. The farmer took to his heels, for there was no time to pause and reason with the beast, who had never made such an onset on any body before. On the good man ran, or flew, to reach the fence, but the enemy in his rear caught him on his horns as he reached it, and gave him a toss that plumped him into the dirt on the other side. The bull was mad with rage at having placed a barrier between him and his prey, and tore up the earth with his horns and hoofs. Old Downs rose from the ground, and turned upon his foe, cried out, "Oh, you rascal, you needn't stand there bowing and scraping and making apologies. You done it o' purpose; you know you did!"

Two Irishmen engaged in peddling packages of linen bought an old mule to aid in carrying the bundles. Each would ride a while, or "ride and tie," as the saying is. One day the Irishman who was on foot got close to the heels of his muleship, when he received a kick on one of his shins. To be revenged, he picked up a stone and hurled it at the mule, but by accident struck his companion on the back of his head. Seeing what he had done, he stopped and began to groan and rub his shin. The man on the mule turned and asked, "What's the matter?" "The cratur's kicked me," was the reply. "Be jabbers," said the other, "he's did that same to me on the back of my head."

A new Nephew, Charles Wetherspoon, sends quite a collection of scraps, of which the following are a few.

An old gentleman by the name of Gould had married a girl scarcely nineteen years of age. After the wedding the juvenile bridegroom addressed to his friend Mr. G. the following couplet, to inform him of the happy event:

So you see, my dear sir, though eighty years old,
A girl of nineteen falls in love with Mr. Gould.

To which the doctor replied:

A girl of nineteen may love Gould, it is true,
But, believe me, dear sir, it is gold without U.

Samuel Hammond sends scraps, of which the following are a sample.

Josh. Billington has an entirely bald head and it is related of him that once when he was at the zoological gardens in Paris, the day being warm he lay down upon one of the benches, and went to sleep. After a while he was awakened by a feeling of suffocation and when he opened his eyes, he found that something covered his face he began to struggle to relieve himself and the next moment a gigantic ostrich leaped up and began to prance down the path. The ostrich had observed the top of Josh's bald head, and mistaking it for one of his eggs had begun to set upon it for hatching purposes.

An Irish glazier was putting a pane of glass into a window when a groom began joking him saying, "Mind and put in plenty of putty." Paddy bore his torment for sometime when he put a stop to him by saying "Arrah, sir, be off wid you or I'll put a pain in your head without any putty."

In Cork, Ireland, a short time ago, the crowd of the court endeavored to disperse the crier by exclaiming "All ye, blackguards that isn't lawyers, leave the court."

"I say, my little son, where does the right hand road go to?" "Don't know sir; 'tain't been anywhere since we lived here."



MINNIE MAY'S

DEPARTMENT.

**Minnie May's
Cook Book.**

**RAISIN PIE OR
TART.**

Take two cups of raisins, wash them and set on to boil with enough water to well cover them. In the meantime make your paste pretty rich; lay it on the plates you intend to bake your pies in. When the raisins are nicely swelled, dredge amongst them about two teaspoons flour to thicken the water; add a little sugar; spread them on the paste and cook in a moderate oven. Have ready a whip made of the whites of three eggs, and about two tablespoons of white sugar. When the pies are cooled, spread the whip nicely on top; if you like you may lay a few swelled raisins on top of the whip. This is a delicious pie and looks very tempting. Set the pies in a cool oven to set the whip.

Nice tart paste may be made by boiling a couple of tablespoons of butter in a cup and a half of sweet cream. Pour it boiling on the flour.

Mrs. McIntosh is informed that if she will procure from a druggist an ounce of tincture of myrrh, and use a few drops of it in half a teacup of luke-warm water, brushing her teeth with it and rinsing the mouth well with it, it will help her greatly. It hardens the gums, prevents decay and sweetens the breath. It will also stop toothache if applied at the very first. The teeth should be washed three times a day with a soft brush or cotton rag. I will add a recipe for toothache which I have found to be very good.

TOOTHACHE REMEDY.

Best alcohol, 1 oz.; laudanum, one-eighth of an ounce; chloroform, five-eighths of an ounce; gum camphor, half ounce; oil cloves, half drachm; sulphuric ether, three-quarters ounce; oil lavender, one drachm. Half the quantity is sufficient to have made at once. Keep tightly corked. Rub freely on face and gums, but do not swallow it.

MARY KAY.

If any one has that grief of good house-keepers, sour bread, let them soak up some of it in boiling water, letting it stand two or three hours. About an hour before tea time beat it up well, pouring off surplus water; add sugar, a spoonful of soda, and flour enough to make it into pancake batter. It makes delicious pancakes. Eat with maple syrup or preserve syrup. Or prepare it in the same way, adding sugar, soda, a cup of currants, or some sliced apples, a couple of eggs and flour sufficient as before, and fry it as fritters. Your sour bread will go off like "hot cakes."

Will some one give a good description of starching and ironing collars, bosoms, &c., so as to have a good gloss and avoid sticking to the iron?

Dear Minnie, I have given you quantity, if not quality; any way all the above recipes are in use in my family, and I know them to be good. With many thanks for your kindness in trying (and succeeding) to help farmers' wives and daughters, and for the trouble you take to obtain information for them and render your department so interesting to them, I remain yours, &c.,
M. K.

Brucefield, Ont., 1874.

Tilsburg, April 15th, 1874.

Dear Minnie May,—

I like your column greatly, and wish to help by sending some recipes. Here is a good recipe for

NICE BREAD PUDDING.

One pound of stale bread soaked in one quart of hot skim milk, two tablespoons of

minced beef, dripping, two eggs, two handsfull of currants; flavor with nutmeg. Boil two hours.

CORN CAKE.

Six handsfull of corn meal, three of flour, one of sugar, two small teaspoons of soda, three cups of thick milk, two eggs, a pinch of salt, butter big as a walnut. Bake in a quick oven.

PRESERVED APPLES.

Weigh equal quantities of good brown sugar and of apples; peel, core and mince them small. Boil the sugar, allowing to every 3 pounds a pint of water; add the apples, the grated peel of one or two lemons and two or three pieces of white ginger; boil till the apples fall, and look clear and yellow.

OLD MAIDS' CAKE.

A pound of flour, half pound of sugar, a quarter pound of butter or lard, four wine glasses of sweet milk, half pound of raisins, a quarter of pound of currants, the same of candied orange peel, a quarter of a nutmeg, two teaspoons of ground ginger, one of cinnamon, and one of carbonate of soda. Mix well, and bake slowly for two hours.

APPLE PUDDING.

Six best flavored sour apples, pared and chopped; butter the pudding dish and strew over the bottom a layer half an inch thick of fine bread crumbs, and a few small bits of butter; then a layer of apples, the least bit of nutmeg, and a spoonful of sugar, and so on till the dish is full. Pour over all a teacup of cold water. Bake thirty minutes.

DROP CAKES.

One pint of flour, half lb. of butter, quarter lb. of pounded lump sugar, half a nutmeg grated, a handful of currants, two eggs and a large pinch of carbonate of soda. To be baked in a slack oven for ten minutes.—The cakes are excellent.

AGGIE FRANCIS.

Clarence, April 15th, 1874.

Dear Minnie May,—

As the old saying is "Better late than never," I must try and write this month, as I have long been wanting to, but thought I could not help you any, though your column helps me and I always turn to it first. I was interested in Jennie Jones' letter, for I can sympathize with her by experience; but the only thing to do is to take fresh courage and work on, as it is the work she has been given to do, and though I know it is so wearisome sometimes, we would not lose the dear ones we labor for if it were twice as hard. But I would just say—do not try that pudding again, and think it gives the "blues," but Minnie's column will furnish simple ones. I will just add one that if you think best to give, she may fancy it. Hoping, dear Minnie, you may have plenty of aid in your good work, I remain your hope, friend and well-wisher,
A FARMER'S WIFE.

QUEEN OF PUDDINGS.

1 qt. milk, 1 pt. fine bread crumbs, ½ cup sugar, yolks of 4 eggs, small piece of butter, and a little flavoring. Bake but not boil this; spread jelly, apple sauce or preserves over. Take the whites of the eggs and beat to a stiff froth; add 2 tablespoons white sugar and a little lemon. Spread this as an icing and return to the oven till a light brown.

LEMON CAKE.

Stir to a cream one cup of butter with two of sugar; add the whites of six eggs, beaten to a stiff froth, 1 cup of milk, ½ teaspoonful of soda dissolved in it, and flour enough to make it stiff as pound cake; with the flour stir in 1 teaspoonful of cream of tartar, 1 oz. of the essence of lemon or the juice of 2 raw lemons. Beat a long time.

SALLY LUM CAKE.

Rub a piece of butter as large as an egg in a quart of flour; add one tumbler of milk; two eggs, three tablespoonsful of sugar, two teaspoons of cream of tartar, and one of soda. Bake in a round dish. Eat warm with butter.

INDIAN TEA CAKE.

Three cups of Indian meal, 1 cup of flour, 1 pint of milk, 1 cup of molasses, 1 teaspoon soda.

MRS. E. PETCH.

Barton Rose Hill, April, 1874.

Dear Minnie May,—

I hope you will excuse me for not writing last month, as I was away from home and did not get back in time. Here is a recipe for

MILK TOAST.

Boil a pint of rich milk with a tablespoon of butter and one of flour. Have ready in a dish eight or ten slices of bread toast.—Pour the milk over them hot, and cover it until it goes to the table.

RICH MAN'S PUDDING.

One cup beef drippings, 1 cup boiling water, 1 cup syrup, 1 cup fruit, two teaspoons soda, flour to make a stiff batter.—Steam two hours.

FOR PICKLING PEARS.

To seven lbs. pears, one pint vinegar and three lbs. sugar. Peel the pears, stick the cloves in, and cook until soft.

FOR PICKLING GREEN TOMATOES.

To four quarts tomatoes, sliced, two lbs. sugar, one qt. vinegar. Spice to the taste; simmer until done.

FOR MAKING FLITERS.

Beat three eggs very light, add one quart sweet milk and a little soda; mix in a stiff batter; fry them in fresh lard. To be eaten with syrup.

BAG STRINGS.

Beat three eggs; add a small bowl of sweet milk, a little salt and one-half teaspoon soda. Knead stiff, roll out, cut in strings, boil some in milk and the rest in water; drain the water off, scorch a little butter and throw over them. To be eaten while warm.

SAGO PUDDING.

Quarter lb. sago; boil in one pint sweet milk until done; when cool add three eggs well beaten, 1 cup butter, 1 cup sugar; add milk enough to make it thin enough for baking. To be eaten with cream sauce.

PLUM PUDDING.

One and a half cups flour, two eggs, half cup sugar, half cup butter, half cup cream, one teaspoon soda, quarter lb. raisins. Boil one hour.

BELLA E. HESS.

Hemlock Hill, 1874.

Dear Minnie May,—

I think Mr. Weld will soon have to devote two or three pages to your department, as every month it is better and more of it. I will send you a few recipes, &c., now and then, which, perhaps, will help to bring that good day along a little sooner.

JUMBLES.

Two eggs, 1 cup sugar, ½ cup butter, ½ teaspoonful soda, 1 of cream of tartar. Mix stiff; bake in a quick oven.

JELLY CAKE.

One cup sugar, 1 cup flour, 3 eggs, ½ cup cream, ½ teaspoon soda.

PAN-CAKES.

One egg, two spoonfuls sugar, 1 cup sweet milk, 3 cups flour, 1 teaspoon soda, 2 teaspoons cream tartar.

GINGER BREAD.

One pint molasses, 1 cup sugar, 1 cup butter, 1 cup sour milk, 3 eggs, 2 teaspoons soda, ginger to taste. Mix stiff.

MILK GRAVY WITH FRIED PORK.

Take out the meat from the frying pan when well done, and all the fat except two or three spoonfuls. Wet up a large spoonful of flour with cold water, stir this into the fat while hot, and then add 2 cups milk and stir well. Let it boil five minutes.

USEFUL HINTS.

A quart of flour weighs 1 pound, 2 ounces.
" butter, 1 " 1 "
" loaf sugar 1 " "
" best brown sugar, 1 pound, 2 oz.
Ten eggs weigh 1 pound.
Sixteen large tablespoonfuls make a half-pint, 8 a gill, 4 half a gill, &c. M. W.

Cayuga, April 7, 1874.

Dear Minnie May,—

I suppose you will receive me as one of your correspondents, as I wish to be useful to you. I will send you a recipe for making

SALT RISING BREAD.

The night before you want to make your bread, take a pint of sweet milk and heat it scalding hot; then stir in corn meal until it is as thick as mush; keep it by the fire at night. The next morning take a teacupful of water as hot as you can bear your finger in it; pour it in the mush and thicken it with flour as thick as you can stir it; put it in a pot of water as warm as you can bear your finger in. In a short time it will be to the top of your cup; then take as much water as you wish to make your bread with, and have it warm; thicken with flour, and when cool enough, stir your rising in it; it will be ready to mix in an hour or less time; mix pretty stiff; grease your pans well; also grease your bread on top, and as soon as light enough, put it in the oven and bake it. Don't let it stand after it is light.

Here is another very good recipe:

A CURE FOR A BURN.

The white of an egg is a sure remedy for burns. Seven or eight successive applications of this substance soothes pain and effectually excludes the burned parts from the air. This simple remedy seems preferable to collodion or even cotton.

I will give you a recipe for making an

APPLE PUDDING.

Fill a well buttered pudding dish with alternate layers of bread-crumbs from a stale loaf, and tart, juicy apples, peeled, cored and cut in slices. Sprinkle the apples thickly with sugar, to which add a flavoring of nutmeg. Over each layer of bread crumbs throw small bits of fresh butter. The under layer should be bread crumbs, the top layer apples. Bake half to three-quarters of an hour. Just before it is done, whisk the whites of three eggs to a froth, with two tablespoonfuls of powdered sugar, and a bit of lemon. Spread it lightly over the top, return to the oven to set, not color, and serve hot or cold.

This is all at present, but I will send you more some other time.

I am yours truly,

SARAH E. LAWRENCE.

Elma, April 18, 1874.

Dear Minnie May,—

I hope you will receive me into your columns, and as a prize was offered for letters, I will try my "luck" for your cookery Book. Here is a recipe for making wine jelly.—Dissolve one box gelatine in a pint of cold water; add a pound of loaf sugar and the juice and grated rind of two lemons; then add a pint of boiling water, and a pint of wine, some cinnamon and cloves, let it all come to a scald; strain and put in moulds until wanted.

CREAM CANDY.

Two cups of white sugar, half a cup of water, one table-spoonful of vinegar, one-half teaspoonful of cream of tartar; boil it until it will harden by being dropped in cold water, when done add the flavoring, then put it on greased plate, must stir till it turns white then cool it.

CHEAP FRUIT CAKE.

One, cup sugar, one cup butter, one and a quarter flour, three eggs, one cup raisins, one cup currants, and a little soda.

RICE PUDDING.

To three quarts milk add one cup of rice salt, spice, and sugar to taste. Bake three or four hours. This makes an excellent pudding.

STEWED LOBSTER.

Cut the meat into nice bits and warm a little gravy; season with salt, sage and a little cayenne; thicken with flour and butter, and a little anchovy sauce. Dish up with sippets of toast round it.

CUSTARD.

Beat six eggs, put in a quart of milk and quarter pound sugar, season with nutmeg, the milk must be boiling. No more just now.
Respectfully Yours,
Newry.] CATHERINE RICHMOND



DOMINIQUE FOWLS.
The London Field says of this variety which it denominated American.

There are two or three useful and good breeds of poultry that are not well known in England. One of the oldest established, and certainly one of the most useful, is the Dominique. This breed more closely resembles our Cuckoo Dorkin than any other English variety. It differs, however, in having only four toes—a great advantage, by the way, in a practical point of view—and in the legs being yellow. Each feather is of a very light grey, barred across with dark slaty blue bars, of pencillings. The Dominique cocks are showy birds, with full saddles and hackles, and abundant well matched sickle feathers. They should weigh from six to eight pounds when mature. As table fowls they should necessarily be short legged, full-chest and broad on the back. The ear lobes should be red, and the wattles and comb neat; the former of medium size. The merits of this breed will recommend them to persons residing in the country, as well worthy of promotion in the poultry-yard, whether as makers of eggs, or of meat; as setters, or nursers, they are invaluable.

EGG-EATING FOWLS.

It is always considered that fowls first eat eggs for the sake of the shell, because they have not access to the ingredient that composes it. Lime is the principal ingredient, and as there is much of it in the hull of corn, they get some of it in that way, but they should be provided with a heap of bricklayers' rubbish.

If each run is not provided with grass heavy sods of earth should be cut covered with growing grass. If they are to be had some lettuce should also be given, but they must be green. Whole feed morning and evening, barley meal or ground oats, at noon, give whole corn and house scraps. This, with plenty of green food, road grit and old plaster should keep them in perfect health. If they are so, they will not eat their eggs. But after this vicious habit has been formed it is almost impossible to cure them. First let them be watched, and as soon as the hen gives notice that she has laid, she must be driven from the nest and the egg removed. We have sometimes cured them by filling an egg shell with mustard and cayenne pepper and let it remain in the nest. This does well sometimes and has to be repeated, or at least until all the fowls have had enough to satisfy them that they don't relish that kind of eggs. We have also cured them by the use of china eggs in the nest and around it, that is on the floor of the coop. There constant pecking at them makes their beaks sore, and making no impression on the nest egg, they give it up as a bad job, when these remedies fail, the best thing to do is to apply the hatchet pretty near the back of the head *Poultry Argus*.

TEA AND COFFEE.

Hall's *Journal of Health* says:
Taking into account the habits of the people, tea and coffee for supper and breakfast add to human health and life, if a single cup be taken at either meal, and is never increased in strength, frequency or quantity. If they were mere stimulants, and were taken thus in moderation and in uniformity, they would in time become inert, or the system would become so habituated to their employment as to remain in the same relative position to them as if they had never been used, as they are liable to abuse. But science and fact unite in declaring them to be nutritious as well as stimulant; hence they will do a new good to the system every day to the end of life, just as bread and fruits do; hence we never get tired of either. But the use of bread and fruits is daily abused by multitudes, and dyspepsia and cholera morbus result; yet we ought not to forego the use of tea and coffee because their inordinate use gives neuralgia and other ailments. But the habitual use of tea and coffee at the last and first meals of the day has another high advantage—is productive of incalculable good in the way of averting evils.

We will drink at our meals, and if we do not drink these, we will drink what is worse—cold

water, milk or alcoholic mixtures. The regular use of the last will lead the young to drunkenness; the considerable employment of simple milk at meals by sedentary people—by all except the robust—will either constipate or render bilious; while cold water largely used, that is especially in cold weather, attracts to itself so much of the heat of the system in raising said water to the temperature of the body—about one hundred degrees—that the process of digestion is arrested, in the meanwhile giving rise to a deathly sickness of the stomach, to twisting pains, to vomitings, purging, and even to cramps.

The Horse.

There are a great number of horses which have the wasteful habit of throwing their feed out of the trough by means of a side jerk with the nose. This is especially the case with horses that are fed with cut feed, and it is in the search for the loose meal, which finds its way to the bottom of the trough, that the mischief is done. We have prevented the waste by simply nailing a few bars across the feeding trough. The horse then finds it impossible to throw his feed out, and must take it as he finds it.—The bars should not be more than a foot apart.

SWELLING OF LEGS.

When the legs of a horse swell upon standing in the stable it is an evidence of debility, general or local. It would be well to increase the food and quality. The following might also be of use—viz: Powdered sulphate of iron one and one half ounces; gentian root, two ounces; mixed and divided, of potassia, one ounce; mixed and divided into twelve powders. One of those given in cut feed as little moistened as possible night and morning. Ground oats would be better feed than corn. Friction by rubbing with a coarse wollen cloth upon the parts would also be helped.

CARE OF TEAM HORSES.

The following good advice to teamsters has been published in the form of a showy poster, and sent out by the Massachusetts Society for the Prevention of Cruelty to animals. It is signed by Daniel H. Blanchard, and endorsed by several veterinary surgeons, agents of railway and express companies, and by Chas. A. Currier, special agent of the society:

What Constitutes a Good Driver.

1. A man who sees that good care is taken of his horse in the stable, by being well fed with wholesome food, of cracked corn and oats, with plenty of good hay. Potatoes or carrots may be given once or twice a week to good advantage.

See that he is kept clean, warm and comfortable, with plenty of bedding. A piece of rock salt should always be left in the manger.

2. He should see that his harness is kept soft and clean, particularly the inside of the collar, which ought always to be smooth, as the perspiration, when dry, causes irritation, and is liable to produce galls on the shoulder.

The collar should fit closely, with space enough at the bottom to admit a man's hand. If too large, it has the bad effect of drawing the shoulders together.

On no consideration should a team, or any work horse be compelled to wear a martingale, as it draws the head down, and prevents him from getting into an easy and natural position.

The check-rein may be used, but only tight enough to keep the head in a natural position, and it should never be wound around the hames.

See that the hames are buckled tight enough at the top to bring the draught iron near the centre of the collar. If too low, it not only interferes with the action of the shoulder, but gives the collar an uneven bearing.

Caution should be taken that the girth is not buckled too tight, particularly on string teams, for when the traces are straightened, it has the tendency to draw the girth against the belly, and distress the horse.

3. See that the horse is kept well shod with a good stiff shoe, always calked at toe and heel on the hind feet, as it is there where all the propelling power comes from when heavily loaded.

Keep the feet good and strong, by not allowing them to be cut away too much by the blacksmith.

4. The best of judgment should be used in loading, taking into consideration the condition of the street and the distance to be travelled.

Never overload, for by so doing you only distress, strain and discourage your horse, and do him more injury than you can possibly gain by carrying the extra load.

When your load is hard to pull, stop often and give your horse a chance to breathe.

No good driver will ever resort to the cruel practice of whipping or beating his horse. A light whip may be carried, but there is seldom use for it. Much more can be accomplished by kind treatment and good judgment.

Remember the horse is a very intelligent, proud, sensitive, noble animal, the most useful known to man, and is deserving of the greatest kindness.

CRITICAL TIME FOR COLTS.

It very often happens that in the third year of a colt's life it falls off in condition, stops growing, and becomes mysteriously poor and emaciated. Disease is suspected, various nostrums and absurd specifics for imaginary complaints are administered, which fail of effect, and it is only after a lapse of time that a measure of improvement takes place, which, however, leaves the colt permanently injured and with an impaired constitution.

At this period of the colt's existence an important dental change is going on. The central temporary milk nippers or cutting teeth in the front of its mouth are shed, and the permanent teeth take their place. If the colt is at grass it is almost impossible for it to graze, and it suffers partial starvation. This is the whole secret of many a colt's sufferings. The trouble in such cases would be avoided by occasionally examining the mouth, and when the temporary absence of the nippers is observed, to supply cut feed of tender hay, with ground oats or soft mashes or cut green fodder. This provision would tide over the necessarily occurring period of disability, and prevent the otherwise inevitable falling away and poverty of condition, with its disastrous results.—*New York Tribune*.

SPOILING HORSES' FEET.

It is almost impossible to get a horse shod without having the frog cut away. All veterinary surgeons, all horsemen, all leading blacksmiths agree that the frog should not be pared one particle, nor even trimmed.—No matter how pliable and soft the frog is, cut it away smooth on all sides, and in two days it will be dry and hard as a chip. You might as well cut all the leaves off trees and expect them to flourish, as to pare away the frog and have a healthy foot. The rough, spongy part of the frog is to the foot what leaves are to the tree—the lungs. Never have a red-hot shoe put upon the foot to burn it level. If you can find a blacksmith that is mechanic enough to level the foot without red-hot iron, employ him. If you do not think so, try the red-hot poker on your finger nail, and see how it will affect the growth of that. There are many other important points in shoeing horses, but these two are of more importance than all the rest, and the most disregarded. "No frog, no foot; no foot, no horse."

SOCIETY IN THE COUNTRY.

One of the chronic complaints made by farmers is that they have no society—that they are so isolated, have none of the social privileges which might be theirs were they living in towns. This is often used by Farmers' sons, daughters and wives as a reason why the homestead should be sold or rented and the family move into town near a church and school. These reasons are sometimes valid. But it is often the case that a neighborhood of farmers make no effort to employ their own resources in social development. There is no neighborhood cohesion. Every man's hand is against the other man's hand: every woman nurses scandal against every other woman. The amenities of life are neither known nor nursed. There is no friendly interchange of visits. The long winter evenings come and go and no neighbor ever sees the other except as they chance to meet at a blacksmith's shop, in the market, on the road or at church. They neither get together to talk over farm or other mat-

ters. There are no reading, singing, debating, dramatics, or other clubs formed among the young folks. They have to go to town for amusements or profit.

Need we say that this is both wrong and unnecessary? Suppose the material out of which country society is to be composed is crude and uncultivated? Cultivate it. Here is a field for effort on the part of the more intelligent. Stimulate thought and action in this direction and it will be astonishing how much the crudest and most untutored will learn in a short space of time. At any rate, hold neighborhood meetings. Gather together at the home of some one once a week, and strive to develop friendly feeling, neighborhood pride and ambition, home talent and resources. Let old and young meet. Abandon formalities which only freeze out natural action and beget no warmth. Go in for a good time in some way. Combine instruction with amusement. Plan some project which shall enlist the active co-operation of all. Treat no one as unimportant. Make every one, old and young, feel that he or she has a place, can, and is expected to act a part. Commend what is done well and kindly and considerately; criticize whatever may be improved.

This isolation of which so many complain can be broken. It should be. It will be. We are glad to know that the Patrons of Husbandry are in agency to this end. But thousands will not join it; and those thousands should substitute something else for it which shall meet the social wants and awaken the social spirit among farmers. There are a hundred ways for improvement and pleasure which will suggest themselves the moment the ice of reserve and self-distrust is broken. These winter evenings should be utilized to get acquainted with each other—to lift each other up; and any neighborhood effort of this sort should include *All!* Try it!—*Moore's Rural New-Yorker*.

EXPORTS FROM CANADA.

The total exports from Canada, being the products of the country, amounted last year to the value of \$73,245,600. Of this the contributions were as follows, respectively:—

The Mine, \$6,471,162; Fisheries, \$4,779,277; Forest, \$28,586,816; Agriculture and animals, \$29,238,357; Manufactures, &c., \$2,921,802; other articles, \$405,292; Ships built at Quebec, \$782,900. The exports accruing from agriculture and its products amounted to about \$7.50 per head of the population, while the amount of manufactures exported was less than 75 cents per head. During the same time the United States exported in wheat, corn, cotton and provisions to the amount of \$371,500,000, or in proportion of \$9 per head of the population. If the lumber produced in Canada is taken as a set-off against the cotton, the export of domestic products from Canada would be at the rate of \$14.50 per head, while all things included, the exports will be in value of \$18 35 per head.

WHAT CONSTITUTES A CAR LOAD.

Below will be found a statement showing what constitutes a car-load, and though it may not exactly suit everywhere, it approximates so closely to the general average that shippers will find it a great convenience as a matter of reference.—As a general rule, 20,000 pounds or 70 barrels of salt, 70 barrels of lime, 90 of flour, 60 of whiskey, 200 sacks of flour, 6 cords of hardwood, 7 cords of softwood, 18 to 20 heads of cattle, 60 to 60 heads of hogs, 80 to 100 heads of sheep, 9,000 feet of solid boards, 17,000 feet of siding, 13,000 feet of flooring, 40,000 shingles, one-half less of hard lumber, one-fourth less green lumber, one-tenth less joists, scantling and all other large timber, 340 bushels of wheat, 360 of corn, 680 of oats, 400 of barley, 360 of flax seed, 350 of apples, 360 of Irish potatoes, 1,000 bushels of bran.

WHERE THE COLD HAS BEEN.

The winter just closed has been the severest in Nevada since its settlement by the whites. The *Virginia City Enterprise* says:
The almost continuous cold weather since the beginning of December has had no equal in duration and intensity in the recollection of the oldest inhabitant. The cold has been more intense in the valleys than at higher altitudes, and the loss in stock from storm and starvation will be very considerable. Governor Bradley alone lost 2,000 head of cattle, and the enormous herds wintering in the State have been thinned in almost all the eastern counties. A despatch from Elko says the thermometer marked 30 deg. below zero at that place on the morning of February 25th.

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—A Correspondent of the Department of Agriculture says:—"The shearing of sheep twice a year diminishes the amount of wool, as I have satisfied myself by experiment. One fleece, annually shorn in the spring, will weigh more than both the fall and spring fleeces from the same sheep.

ABBOTT BROS.,
CARRIAGE BUILDERS Dundas Street, East of Wellington Street,
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CANADA LIFE ASSURANCE COMPANY.—
Established 1847. Assets including Capital Stock 2½ Millions. Cash Income about \$10,000,000 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.

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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.

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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.; Jehn Mills, Esq.; D. Regan, Esq.; James Owey, 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.

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Agricultural Implement Works
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Manufactures all kinds of Agricultural Implements—
CANADIAN SIFTER FANNING MILLS,
PARIS STRAW CUTTERS,
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ONE HORSE SEED DRILLS, HAND SEED DRILLS,
ONE HORSE PLOUGHS, TURNIP CUTTERS,
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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 fire 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.
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4 tf Nelson Crescent, Guelph.

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A Whole winter stock reduced. Now for Barains at the Striking Clock.

EGGS FOR HATCHING.
Pure and Fresh.

BUFF COCHINS, DARK BRAHMAS, GREY-DORKINS, SILVER SPANGLED HAMBURGS, BLACK, WHITE CRESTED POLANDS, HOUDANS, LEGHORNS, GAMES, AYLESBURY, AND ROUEN, DUCKS.

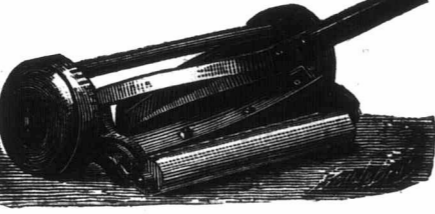
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I have spared neither trouble nor expense in procuring the best fowls to be had, and will guarantee the eggs pure and fresh and packed in the most careful manner. If the eggs do not hatch satisfactorily, others will be sent for half price.
N. B. Do not set the eggs in too dry a place, unless you damp them occasionally.
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Affords opportunity for safe and remunerative investments of accumulative savings.
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London, Sept. 14, 1870.

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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 sent 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.

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Local Agents Wanted.
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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.
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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.
MANUFACTORY: BRANTFORD.

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MARKETS.

Liverpool Markets.

The following are the Liverpool quotations for each day of the past week:—

	May 13.	14.	15.	16.	17.	18.	19.
Flour.....	28 0	28 0	28 0	28 0	28 0	28 0	28 0
Red wheat..	12 4	12 4	12 4	12 4	12 4	12 4	12 4
Red winter..	12 6	12 6	12 6	12 6	12 6	12 6	12 6
White.....	12 6	12 6	12 6	12 6	12 6	12 6	12 6
Club.....	13 0	13 0	13 0	13 0	13 0	13 0	13 0
Corn.....	37 6	37 6	37 6	37 6	37 6	37 6	37 6
Barley.....	3 6	3 6	3 6	3 6	3 6	3 6	3 6
Oats.....	4 1	4 1	4 1	4 1	4 1	4 1	4 1
Peas.....	41 6	41 6	42 6	42 6	42 6	42 6	42 6
Pork.....	67 6	67 6	67 6	67 6	67 6	67 6	67 6
Lard.....	48 0	48 0	48 0	48 0	48 0	48 0	48 0
Beef.....	44 0	44 0	44 0	44 0	44 0	44 0	44 0
Bacon.....	44 0	44 0	44 0	44 0	44 0	44 0	44 0
Tallow.....	38 3	38 3	38 3	38 3	38 3	38 3	38 3
Cheese.....	76 0	76 0	76 0	76 0	76 0	76 0	76 0

The Produce Market.

Toronto, Friday, May 22.

English quotations to-day showed an advance of 2d to 3d on White Wheat, but one despatch quotes flour 6d lower. Montreal was steady, with a fair amount of business. Oswego reported a sale of Canadian White Wheat at \$1.80. Chicago was dull and declined to \$1.21 for June, and Milwaukee to \$1.24. New York was heavy and a cent lower at \$1.47 to \$1.49 for No. 2 Chicago. This market was quiet, but generally steady. There was but little movement in flour. One lot of 100 barrels of extra sold at \$5.70 f.o.b., but there was a good deal more offered at the same price without finding any buyers over \$5.65. One lot of 100 barrels of spring wheat extra sold at \$5.25 on the track, but choice would still bring \$5.30. There was nothing reported in superfluous, which may be considered, unchanged at \$5.05 to \$5.10. Wheat was firm, with some movement in small lots. Several cars of No. 1 spring sold at \$1.25 f.o.b., chiefly to complete cargoes.—There was nothing reported in fall, but holders were at \$1.52 f.o.b., or possibly \$1.53 might have been got. Oats were quiet with no sales reported, but values unchanged at 55c. for car lots on the track. Barley was nominally unaltered. Peas were steady; a lot of 6,500 bushels of No. 2 changed hands at 71c. f.o.b., and a car of No. 3 sold at 69c. in store; there was also a car of No. 2 sold yesterday at 70c. in store. For lots of No. 1 buyers could be found at 74c.

Ingersoll Cheese Market.

Ingersoll, May 21.—From all we can learn there has been little done during the past week—factoriesmen asking 12c for the first ten days or half the month of May make. Buyers offer 12c to 12 1/2c. As the May make will be very short, on account of the backwardness of the season, makers expect to realize full rates for cheese ready to move. The prospects for the June make, owing to the recent rains, are encouraging. Shipments from Ingersoll station during the week amount to 1,401 boxes. Total shipments since Jan. 1, 13,566 boxes.—Chronicle.

Montreal Markets.

Montreal, May 22.

FLOUR—Receipts, 1,700 barrels. Market steady and a fair amount of business reported; extra continues about \$6; about 2,500 spring extra of various brands taken at \$5.45 to \$5.50; lower grades unchanged.
GRAIN—No sales reported.
PROVISIONS—Pork firm at \$18.75 to \$19 for mess.
LARD—Wanted at 11 1/2 to 12c.
BUTTER—Still drooping.
ASHES—Unchanged.

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MILLIONS OF ACRES:
of the
BEST LAND IN THE WEST

For sale by the
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On Ten Years' Credit, at 6 Per Cent. Interest.

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The SOIL is rich and easily cultivated; CLIMATE warm; SEASONS long; TAXES low, and EDUCATION FREE.

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\$ 231,242 25.
Cash and Cash Items, \$72,289 55.

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

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