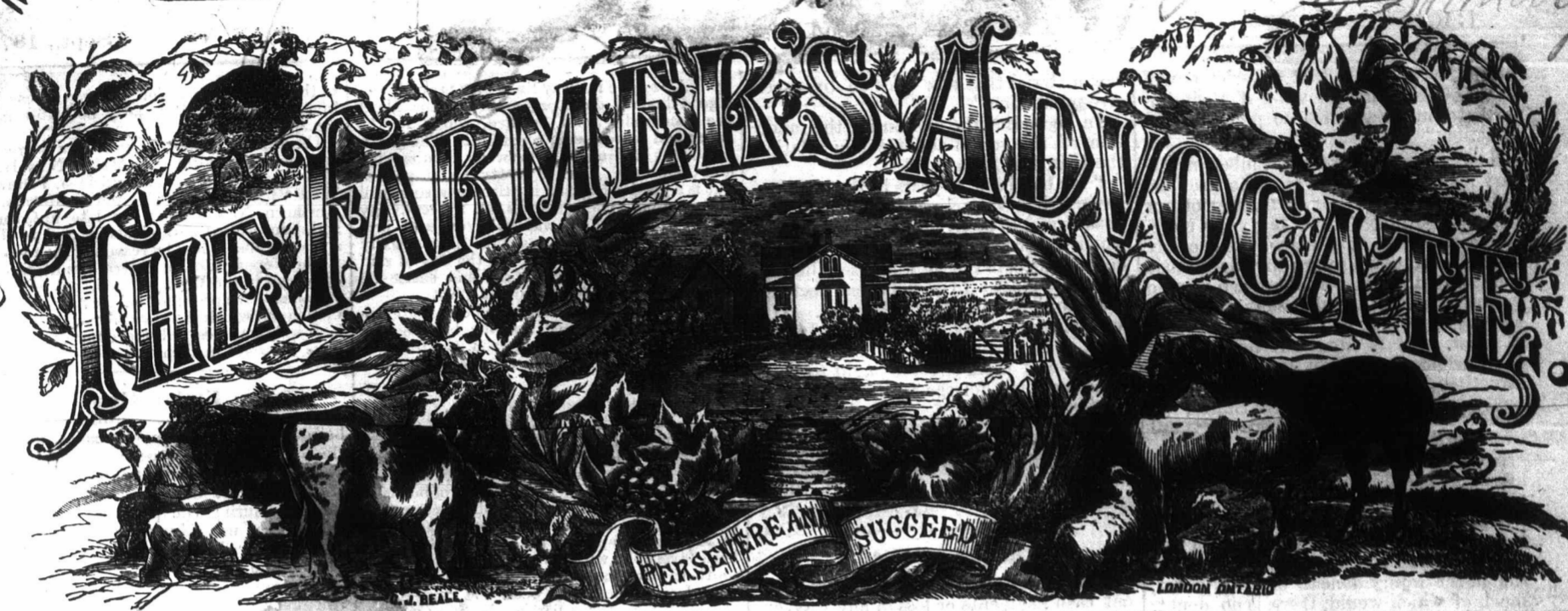


*Mr. Andrew  
Publishers*



**The Scott Wheat.**

We have no hesitation in saying that the Scott Wheat is the safest and most profitable wheat to sow. We have now tried it on different soils and in different localities, and under different treatments, and in each case this wheat has proved most satisfactory. The greatest advantage is that it will stand the winter better than the Diehl, Treadwell or any white wheat we have tried; it has yielded better than any red wheat we have sown.

We have sent it into many localities, and not a single complaint has reached us of its not having stood the winter better than any other variety. In addition to this, it yields, on an average, many more bushels to the acre than any other variety; it has a good stiff straw, and stands up well; the quality of the wheat is very good.

The two worst things that can be said against it are, first, that it is a red wheat. To that we have to say that one of the best millers we know of says that it makes a better quality of flour than the Diehl wheat. The next objection is that it shells out easily. This we do not much object to, as we have always had a better return from our fields when our wheat shells out.

We have been in several counties examining the different wheats, and in each county and township where this wheat has been introduced it is preferred to any other. Mr. J. Johnson, of Westminster, sowed 15 acres of Scott Wheat; his neighbor adjoining sowed 16 acres, half of which was Diehl and the other half Treadwell. All were very similarly treated. The Scott wheat yielded a first rate crop; both the other pieces were so badly killed that they had to be plowed up. Thousands of acres of Diehl and Treadwell wheat were plowed up last year, and the Treadwell is harder than any other white wheat.

If you wish to run the risk of the loss of plowing under your wheat, sow the white wheat; if you want to sow the wheat that will yield you a crop more certainly than any other, you must sow the Scott Wheat.

J. B. Burwell, Esq., of Caradoc, says it is altogether the safest and best wheat to sow. Jonathan Jarvis, Esq., of Oxford, says it has done better than any other wheat in his locality. A. S. Arnold, Esq., of Lewisville, says no other variety sown in his neighborhood will yield near as much per acre. S. White, Esq., the late President of the Provincial Association, says it has yielded better than any other wheat, and that it is the safest and most profitable wheat to sow. Thos. Weekes, Esq., of Delaware, says it is the hardest wheat in his locality.

We say if you cannot get it off your neighbors, go or send and get some, rather than risk plowing a crop under. See advertisement on page 143.

**A Journey in France.**

Our readers, we trust, would like to hear a little of our trip in a foreign country. As soon as we are landing on the French coast, we are stopped by an officer who asks our name and to what country we belong. We reply and pass on shore.

We are at once struck with the obliging and courteous manner of the porters, waiters, and the public generally; also with the prices of wines, liquors, and provisions, or meals and lodgings. For instance, we had as good a meal for 2 francs, or 20 pence (40 cents), as we had previously paid 2s 6d or 62½ cents for in England. The price paid for a glass of brandy is 2 pence or 4 cents, such as would have cost 6 pence or 12½ cents in England; a glass of wine larger than a glass of beer such as is sold at many of the hotels in Canada, costs 1 penny or 2 cents.

Wine is a general beverage here; it is light, having a slight acidity, but pleasant and nutritious. It appeared to us that on the railway nearly half the passengers carried their bottle of wine with them. The railways, as in England, are managed with great exactness; at one of the stations we saw double decked railway cars. We have never seen such in England or America, but think on many lines where bridges have not to be run under they might be advantageous. In other parts, at every place where a country road crosses the track, a guard is stationed to prevent accidents to travelers; the guards all wear a blue coat and glazed broad-brimmed hat. They have two staves, one red and the other blue, which are used as signals; they also have a horn, through which they speak and give signals. We notice that women fill these posts in a great many places; all that is necessary for them to do is to put on the man's coat and hat. The husbands are appointed to the situations, and their wives or daughters perform the duty, while the husband may be engaged at any other occupation.

We in Canada have a right to demand more protection at our R. R. crossings; we have a right to the queen's highway, and that without danger. We should not suffer the loss of life and property at these crossings that we have been subjected to.

The land in France is not divided by hedges or fences of any kind. The crops are growing close to the roadside, so close that a passing wind will cause the grain

to touch a vehicle as it passes. The land is let to the peasantry in small lots of from three to twenty acres. If we are rightly informed, there are far more farms of less than ten acres, perhaps less than five, than over it, in fact ten or twenty acres of a farm is a rarity. A farm there may, and generally does consist of several small pieces of land in different places; at one place he may have a right to so much on a piece of land that may be kept for pasture; another piece may be suitable for grain; another may be of inferior quality, or lying in a different direction from his home.

There are no farm houses scattered over the country, as in England; there are many miles of land on which a house, fence, animal or human being cannot be seen. The cultivators of the land live in villages, and keep their animals there.

Where sheep and cattle are to be seen, they are generally in large flocks or herds. The stock is owned by lots of farmers, each having but very few head. The greater quantity that we saw were in fields feeding on trifolium or other green crops, hurdles being used to keep them on a very small spot of ground.

From what we saw of the farmers they appear to be the laborers, and they seemed quite as happy as any we would see in Canada or England. Many of them save considerable money from even these small farms. The land looks strange, having no fences, and on a small piece of ground great variety of crops are raised, although in general the grain is sown in large pieces, many farmers owning a small piece of ground.

The French farmers sell their grain as soon as it is threshed, and all farm products as soon as they are ready to sell. The farm labor is carefully done; for instance the hay in many places, we noticed, was tied in small bundles and stood up in rows to cure, as we set up wheat; when near fit to carry, it is put in small or large hay cocks or stacks, and capped with oil-cloth coverings in some instances, though ropes tied to stakes in the ground were frequently seen; this, we hear, is done to prevent it from blowing across the fields. They have much more wind in France and England than we have in Canada.

At every place where cross roads are, a cross is erected, on which is a well-carved image of the Savior; in many places these images are as large or larger than the size of a man. In many places we see trees as high as in our hard wood forests, sometimes in clumps, sometimes in rows; these trees have but a few small branches on the top; they are run up in this manner by cutting off the lower limbs, but the trees try to throw out branches the whole

length of the trunk; these make the trees look better than the bare stems of the newly trimmed trees, but they are only allowed to grow on the trunks for a year or two, and are again trimmed off.

We must in another article take you into Paris; we must also, if you approve of it, give you a little about English farming, and also a little account of London, and another about the Atlantic voyage.

**Preservation or Destruction of our Forests.**

This is a subject to which we have repeatedly directed the attention of our readers, but not often than its great importance demands. We are pleased to see that all classes in the different sections of the Dominion are aroused to its importance. We refer to it to-day in hopes that the authorities we now cite may impress the minds of our readers more forcibly than any reasoning we may have adduced. It is often necessary to add *line upon line* to stay that which is injurious, though the injury is not perceived in consequence of its being constantly placed before our eyes.

The Toronto National speaks thus powerfully on the subject:

"The improvident destruction of our forests is a theme on which we are destined to hear much. The Abbe Provancher is raising his voice in protest in the Province of Quebec, where, he says, there are immense spaces where the eye cannot meet a single tree; all have fallen under the blind stroke of the improvident farmer. Animals are left without shade; many farmers have not as much wood left as would make a handle for any of the tools used in agriculture; and as for firewood, it has to be fetched five, six and even seven leagues—twenty-one miles.—Looking with despair upon the prospect which this state of things opens to the future generation, the good Abbe asks what may be expected to happen twenty, thirty or forty years hence. In Quebec the long-continued practice of subdividing farms has naturally brought about a wood famine, every inch of land being required for cultivation. In such a climate the question of fuel is a very serious one. The coal fields of New Brunswick will, in a not distant future, become a necessity to the Province of Quebec. Will anybody else profit by the results of this improvidence. It will be the fault of settlers now entering on woodlands if they do not. If discretion will not teach them, probably no law intended to check the stripping of private lands of woods would be of any use; the experience of every country from the days of Charle-

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magne to our own is that proprietors will denude their lands of wood if their immediate interests seem to point in that direction."

The preservation of the timber necessary for use in future years is in itself no light matter. If the destruction of our forests continues for a few years more, timber will be a very scarce and costly article. A year's sojourn in the prairie country of the West would teach us who are blessed with an abundant supply of timber, something of its value, and that is great. It is abundant here, hence the wisdom of saving it from further destruction. Had we to pay half the prices paid in some of the Western States, we would think that the forests after all were worth possessing.

Nor can we be ignorant of the serious loss experienced in our farming from the want of that protection for our crops and live stock that is rendered necessary by the severity and changeableness of our winters. Every year is an additional lesson in the injury done to our fall wheat, much of which would, there is no doubt, have been prevented, were we so provident as to leave standing timber for shelter.

In parts of the neighboring country they cannot raise fall wheat at all, owing to the want of forests; and in many parts it is only by planting forest trees for screens that they are able to raise fruit. We have no doubt some crops, but little grown here, such as rape and tares, might be grown with profit in many places, were our fields better sheltered by the preservation of sufficient of our native woods.

In favor of the preservation of our forests there is yet another reason too little thought of. It is that they have a great influence on the sanitary condition of a country—so much so that well wooded countries are sure to be healthier than those without trees, other circumstances being equal. Dr. Pettenkoffer, of Bavaria, well known for the soundness of his judgment, as well as for the extent of his scientific research, has, after careful investigation, published a treatise on the subject, demonstrating by facts carefully collected, the great influence of forests in checking cholera and other contagious diseases. The state of the Campagna, in Italy, at the very gates of Rome, is well known. It was, in historical time, teeming with life, a scene of active agricultural industry, the abode of thousands of citizens. The forests were then cut down; the land denuded of the trees which had counteracted the effect of the deadly malaria that depopulated that populous territory, and the husbandman now makes his home not there, but in haste goes and gathers in his crops, and returns home to a more healthy place.

The improvement in the sanitary condition of Egypt in consequence of the groves and gardens planted there by Mahomet Ali, is cited as another of the many instances of the improvement of a people's health by this simple but efficacious method. Though there is no such deadly malaria in Canada, as in Egypt, from which forests are needed as a preventative, yet there are extremes of cold and heat to be guarded against. These extremes lay the foundation of those pulmonary complaints so very frequently met with, and to moderate these extremes—even had we no other inducement—it should be sufficient for the better preservation of the forests. In proof of this, compare the wooded country of Canada with the bleak prairies of Iowa.

Since writing the above we have received the report in Ottawa of gentlemen engaged in the lumber business, and from it we make a brief extract confirmatory of what we have written:

"The committee recommend that a committee be appointed before the close of this meeting, to investigate and report fully with regard to the best practical means of bringing the supply of timber and lumber into accord with the demand, and to check the waste of the valuable

raw material that now goes on by excessive production."

In seconding the motion for the adoption of the report and recommendation, the Hon. Mr. Skead said:

"He had been 34 years in the business, having had experience of it in all its phases, and if he lived 34 years more—which in the course of nature he could not do—he believed he would see the production reduced to a hundred feet for every million now being taken out. Our forests were getting denuded quickly, and there was about twice as much being taken out of them as there ought to be."

Let us, then, for the sanitary condition of our country, for a protection of our crops and stock from the injurious inclemency of the weather, for a wise provision for future years, guard against the wasteful destruction, and plant young trees wherever necessary. —S.

Change of Seed.

This can often be done by farmers without cash payments or loss in any way, except a little care and forethought.

We were conversing with Mr. Pontey, of St. James' Park Nurseries, near this city, and he informed us that two years ago he sent some Early Rose potatoes to be planted on a farm at Watford, for which he was to receive, two years afterwards, a few bushels from the same stock for seed. This spring he received the potatoes from Watford.

These potatoes were planted in the same field, with the same cultivation, and planted at the same time that he planted his general crop. The other potatoes or seed planted was from his own crop and from the same stock that the potatoes from Watford were raised from. The seed from Watford appears as if it will yield near double the crop that his own stock will produce. The plants are about twice as high and more vigorous.

The stock of his own raising had been successively planted on his own land for four years. He is determined to change stock for seed purposes oftener in future. Some of our readers may profit by this suggestion to a far greater extent than many of them imagine.

Crop Reports of the Season.

In another column will be found a report of the crops in this part of the country from the inspection of the Editor. Though there have been some failures and light yield in some places, the fruits of the season have been, on the whole, such that there is a promise of full granaries, with lower prices than we have had for some time. We can hardly speak definitely as yet, but such are the general anticipations. The demand from Europe will not be so very great as it has been, and the increased number of acres under cultivation in America, will more than compensate for the failures in some places from drought and insects. We have given a report of the "Grasshopper Plague," as it is called, in some parts of the West; and we give from the *Prairie Farmer* of July 5, reports from Illinois, of the great prospects there.

A DROUGHT.

Everything now looks as though we had entered upon a period of extreme drought. But few localities in the Western States have been visited by showers for many days, and all the time the heat has been intense. It is too early, of course, to predict the damage that will ensue, and we all hope that the end of the dry term is near at hand. The effect upon small grain, except such as follow their increased propagation of insect pests cannot be very great, but the corn crop is not yet out of harm's way, and it, too, is in danger upon the grain field as the harvest advances. The pastures, too, must suffer severely unless a decided change comes. The reports from Ohio are alarming. The following from Cincinnati, the 5th, is a sample:—

The severe dry weather that has prevailed in Eastern and Southeastern Ohio for several weeks, is resulting in considerable injury to farming interests. The pastures are brown and bare, and the ponds and streams are dried

up. Along the railway lines fires prevail, and a good deal of damage has been done along the Panhandle road by fire, wheat in the shock and fences being consumed. The greatest extent of damage is between Steubenville and Columbus. Corn is pretty badly curled, but is a good color, and if rain comes soon will make a crop. Old residents fail to recall any season when the heat was so severe and prolonged so early in the season. They greatly fear that unless relief comes in the way of rain soon the corn crop will fail, and cattle be driven to starvation for want of grass.

In Southern Illinois the raspberry crop has been greatly shortened, and the blackberries are almost a failure. The peach, and possibly the pear crop will be seriously affected. —*Prairie Farmer*.

REPORTS FROM MINNESOTA.

A late dispatch from St. Paul says that crop reports from all portions of the State are at hand. Grasshoppers have undoubtedly destroyed 500,000 bushels of wheat, and are liable to destroy another half million of bushels. Allowing for the grasshopper destruction, the whole crop will not be as good as last year. In the northern part of the State weather has been favorable, with plenty of rain. In the southern part, moisture has been scarce, while very fervent heat has been the rule. The yield in the northern part of the State will be good, probably fully up to the average, unless the weather of the next ten days proves unpropitious; while in the southern portion harvesting has commenced, or will soon commence with a generally light yield of all grain crops. It is too soon to make a close estimate of the wheat yield compared with last year. Allowing for the grasshopper devastation in the southwestern and western counties, and for a diminished yield from drought, the surplus wheat crop of the State may be roughly estimated at 22,000,000 to 25,000,000 bushels. Barley, rye and oats promise well, although barley is somewhat shrunken. In the lower counties potatoes are abundant, with no complaint so far of potato-bugs. The season has been excellent for hay in this region. Cattle are moderately cheap.

GOOD AND BAD NEWS FROM MORGAN COUNTY.

After four weeks of scorching, burning drought, we are to-day enjoying a beautiful and refreshing rain. One month without rain, and the mercury indicating 90° and 100° in the shade, has a more serious effect upon the agricultural interests of the country than the "Grass-Patch Brigade," (as the *Times* calls the water wasters of your city), are likely to imagine. Corn, with its rolled and twisted leaves pointing skyward—pastures brown and bare almost as in winter, and vegetation generally curled and twisted as if seared with a hot iron. By this drought the small fruit season was shortened nearly half, and the yield materially lessened. Blackberries are already ripening at less than half the usual size. The early potato crop was cut short nearly half, and all garden vegetables were greatly injured. The chinch bugs, too, have been operating without check, and many an acre of wheat, oats and corn have they destroyed. A farmer who has lately traveled over the country considerably, says that people here have no idea what a great amount of damage they have done.

Almost every farmer I meet reports 10, 15, or 20 acres of corn destroyed, and still the work goes on. The Soldier bug and Lebia Grandis have pretty effectually relieved us of the potato beetle, at present at least, and with plenty of rain the late crop may yet be a good one.

The crop of winter wheat and hay just secured are probably the largest and best harvested in the county for many years past. Apples and peaches have fallen until the prospect for either is not better than half a crop.

If nothing interferes with the grape crop it will be the largest ever known in the county. —*Prairie Farmer*.

Morgan Co., Ill., July 8.

The report of the Department, embracing all the States, gives a general view of the corn crop as the largest crop in America. From this it will be seen that there is a prospect of abundant crops.

THE DEPARTMENT REPORT.

The July Report of the Department of Agriculture, just received, says that an increase in the corn area of fully 2,000,000 acres is apparent, or 6 per cent. above the breadth of last year. The percentage is largest in the South; the increase in acres is largest in the West. Returns make the gain in Iowa over 300,000 acres; in Missouri, about the same; in Illinois, about 200,000; in Kansas, about 170,000. Georgia shows almost as large an increase as Iowa and Missouri; Alabama, 180,000 acres; Mississippi, 123,000 acres; Texas, 200,000 acres. The inducement to enlarge the corn area of the cotton States appear to have been less influential in the Mississippi Valley than in the more eastern States, Georgia particularly. The increase in Texas is simply due

to the natural expansion of crop areas from immigration, and is equally noticeable in cotton and other crops.

The number of States reporting a decrease in area small, including only Maine, New Hampshire, Vermont, Florida, Louisiana, Tennessee, West Virginia, Kentucky and California. In Northern New England a late unfavorable spring interfered with planting, and in Louisiana the area is less by reason of the overflow.

The Report says the general condition of the corn crop in the West is good, but elsewhere variable. We presume the most of the information on which the statement for the West is based, was received before the drought had done its worst in Illinois.

Emigration.

There is a time for all things. There has been a time to encourage emigration, but the past season has been the worst to do so, as just after the money panic in the States, and the great expenditures of money in Canada during the past year, these two causes give us this year an unusual number of unemployed hands, wages are much lower, and the best men only are wanted. The emigration agents should be more cautious than ever of the class they send out, and the season when they send them. The Government should now look after the emigrants that arrive here, and prevent starvation to some of them with part of the money that is paid to agents to send them here. There are no poor houses in our country, and a poor, honest, industrious emigrant arriving here, and being out of cash, might just about as well kill himself as submit to the hard and degrading task of getting a crust of bread from the relief officers of some Corporations in Canada.

We give the following picture sent us by one of our readers, a reliable person. It may tend to show even to our Canadians, that everything is not so far superior in the States, and leave the motto of "Stay at Home" more firmly impressed on your minds:—

FACTS WORTH KNOWING.

CHICAGO, August 3, 1874.

*Editor Farmer's Advocate*.—Outside of the United States, the idea is generally prevalent, especially among young men, that if they once set foot upon the dominions of Uncle Sam, their troubles are at an end; that gold and silver can be found on every side; that the fields are always green, and the land may be had for merely asking for it. It is time this nonsensical idea exploded. It is all moonshine, as many have found to their regret—not only Canadians but thousands from across the Atlantic. The steamship companies and U.S. emigrant agents have done so much to induce emigration to this country, that we are completely overrun with mechanics, laborers and men who have no particular calling, but who came here, like the others, on being told that there was employment for all. It is certainly a significant fact, and one well worthy of consideration by intending new comers, that many, very many, have returned to the old country, sick at heart, and indignant at the manner in which they have been duped; and these persons, when having once more set foot upon their native soil, and perhaps in the old homestead, will have many a sad story to relate of their hardships and trials since they were induced to leave home, and try their fortunes in the New World; and this will have a good tendency, as their experience will go far in deterring others from coming here.

The alarming frequency of suicides—especially among foreigners, and Germans at that—has awakened much interest, and it has been proven that nine out of ten of the victims ended their days because they could find no means of subsistence. Almost daily, some poor unfortunate is found floating in the river or hanging from a rafter in a barn, amidst these scenes of luxury and wealth; his purse is empty; his form emaciated; and when intelligence concerning him has been elicited, it is generally found that he is not many weeks from the old country, speaking, perhaps, a foreign language; had spent all his money, being then, as usual, cast out of his boarding house, and after searching fruitlessly for employment, is thrown into the utmost despair, and ends his misery, as many had done before him. Cases of this kind are of frequent occurrence in Chicago, as a reader of the daily papers cannot fail to see; but as we have become hardened in crime of all kinds, we give such things little thought.

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o, August 3, 1874.

ocate.—Outside of the...a is generally preval...y young men, that if...on the dominions of...ables are at an end;...an be found on every...are always green, and...for merely asking for...enceal idea exploded...many have found to...Canadians but thou...Atlantic. The steam...J. S. emigrant agents...duce emigration to...are completely over...laborers and men who...alling, but who came...on being told that...for all. It is certain...one well worthy of...ding new comers, that...ve returned to the old...and indignant at the...y have been duped;...en having once more...tive soil, and perhaps...will have many a sad...ir hardships and trials...to leave home, and...the New World; and...tendency, as their ex...d deterring others from

ency of suicides—os...ners, and Germans at...much interest, and it...ine out of ten of the vic...because they could find...ce. Almost daily, some...found floating in the...n a raft in a barn...of luxury and wealth;...his form emaciated;...nce concerning him has...generally found that he...from the old country...foreign language; had...being then, as usual...rding house, and after...for employment, is...most despair, and ends...had done before him...are of frequent occur...a reader of the daily...see; but as we have...crime of all kinds, we...e thought.

It is true that land may be had free; but it is situated in districts entirely destitute of railroad or water communication with the outer world, or even a corduroy road—where there is no wood to build a cabin or make a fire, no coal, very little good water, and certainly no visible means of progressing, unless the settler may have plenty of money to assist him; and those who want these free grants are not generally provided with an over-abundance of this world's goods. At any rate, if the myriad of emigration sharks do not entirely fleece him before he quits their hands, he may consider himself a fortunate man. What would sound more pleasing, or would anything sooner induce a man, struggling to exist under the tyrannical landlords of Ireland, or the stringent military regulations of Germany, than to be told that he would receive 100 acres of land, free, if he were to go to America, where he would have no landlords and no task-masters? Inducements of this kind have swarmed the United States with poor fortune-hunters, many of whom, by the time they have seen the true state of affairs, have exhausted all their means, and cannot return, being compelled to remain and get along in the best way possible. Rents and provisions are so high that the whole family are often obliged to seek employment to "make ends meet," and tobacco factories, beer saloons, and other mean occupations are crowded with girls who can find nothing else to do, and are obliged to take what they can get, rather than starve. This alone is ruinous and demoralizing, but what help is there for it? Wages are now low, and are still decreasing; and from Maine to California, I might say, there has been a very dull time experienced during the last twelve months, and no employment for half of those who are sadly in need of it. It is a fact that many tradesmen are seeking employment as farm-laborers, merely for their board. I know of several Canadians who have returned homeward from this city within a short time, being very much disappointed in the hopes they had cherished on first arriving across the border.

Canada, with its good, hard, silver money,—where a dollar is a dollar, and where there is more soundness and stability in everything, and where, even if wages are smaller, the pay is sure, and employment more constant—is being inquired after frequently by many, who have lately found out, by some unaccountable means, that there are other countries in the world besides the United States; and so they think of giving it a trial. The ignorance exhibited in relation to our Dominion is very amusing. While in Cincinnati, on mentioning that I was from Canada, I was accosted by a young man, who inquired if I knew the Bradley family there. I asked him what part of Canada had they gone to, and his answer was, "O! to Canada, you know." To quiet him, I said I would enquire for the Bradleys the next time I wrote. On another occasion a person said to me, "In what State does Canada lay." The conundrum was too much for me, and I gave it up. In conclusion, Mr. Editor, I would ask those of your readers who contemplate exchanging the Union Jack for the Stars and Stripes, to consider well the step they are taking. The experience of others should be a lesson. There is no doubt at all but that the old story of the Prodigal Son is repeated over and over again; and those sprigs of manhood who do not wish to play the most prominent part in this drama, should stay home, remembering the advice of

A CANADIAN.

Correspondence.

Percy, August 10, 1874.

SIR,—Wishing to enter my horse for the Provincial Exhibition, I am desirous to know what constitutes a Member, also on what terms they are entered, how, and by what means they are fed, and cared for, and what the probable cost. By giving particulars through the ADVOCATE, you will oblige.

Your Humble Servant,

A SUBSCRIBER.

Send \$2 to H. C. Thompson Esq., Secretary of Agricultural and Arts Association Toronto, one of which will be the Membership, one for a stall for your horse. Feed is supplied on the grounds by the Association at a small price on cost.

Notes of the Garden and Farm.

ORIGINAL AND SELECTED.—S.

DYNAMITE.—We had been reading of the application of the new explosive Dynamite that morning; and the great advantages its introduction into Canada as a stump remover would be to the country was forcibly brought to my mind before the Sun set. There was a forty acre field; the ploughshare had never entered its virgin soil, though it had been cleared some years before. Trees were left standing, enough to give shade to the cattle, and to give the whole ground a pleasant, park-like appearance; but there stood the stumps, disfiguring the whole ground, and, worse still, preventing its tillage, unless it were to be done in the apparently slovenly manner that is indispensable to the cultivation of land among the stumps. There is a great waste in this, but the expense and labor of removing the stumps has been so great that the owners of the soil have chosen rather to let them stand, in some instances tilling among them as best they could, than incurring the expenditure of time and money; in other instances pasturing the wild grass, though not feeding half the stock that it would if improved and properly laid down. The new explosive Dynamite gives promise of great utility to farmers in clearing their land. It has been lately tried on the estate of Sir W. S. Marwell, of Calder, in Scotland, in removing stumps, and did the work well. It was placed under the stump in a hole made with a crowbar, and was exploded with large percussion caps, and set off by a fuse. The result was very satisfactory; and it is said that Dynamite can be used with great effect, and at a reasonable expense in clearing the newly-chopped grounds in Canada. One great obstacle to the colonization of the country has been removed by the opening up of remote places by roads, and the establishment of markets. If this new explosive fulfils the expectations now entertained concerning its power, and the economy attending its use, it will be the means of removing another great obstacle to the colonization of the Dominion, and the improvement of agriculture.

HOLDING ON.—California farmers are now shipping their wheat direct to Liverpool rather than sell at the present rate in San Francisco, which is about \$1.85 per 100 lbs. Some time ago the same wheat could have been sold at \$2.35 per 100 lbs. An offer of 1,200 tons of choice wheat, to be delivered in July, at \$1.65 per 100 lbs, was recently made and refused.—American Agriculturist.

DISCOVERY OF GUANO.—Some extensive beds of guano were lately discovered in Peru. Two surveyors were sent out by the Government of Peru, and examined them. Their report is very interesting to all interested in agriculture. It states that several extensive beds of guano of excellent quality exist in that locality. The beds surveyed are estimated to contain nearly eight million tons, one of them containing five millions of excellent quality. The dread at one time existing of a failure at no remote period in the supply of guano has by this discovery been removed, and it is now hoped that there exist other beds still undiscovered, and that the supply be inexhaustible.

AGRICULTURAL PRODUCTS EXPORTED FROM CANADA IN 1873.—The exportation of domestic animals and their products amounted to \$13,303,901. Of this sum butter brought \$2,806,412. Bacon and ham brought \$2,323,293. The exportation of the produce of the field amounted to almost fifteen million dollars. Of this flour brought \$2,903,454; wheat brought \$6,023,857; and barley and rye \$2,956. From the value of the produce now exported by Canada we can form but a vague estimate of what the exportation will be in a few years, when large tracts of land, whose virgin soil was never touched by the ploughshare, be brought under cultivation; and whose agriculture is brought to resemble that of older countries. As population increases, more of the produce will be required for home consumption, but the produce for exportation will, doubtless, increase in a far greater proportion.

DRAINING IN BRITAIN.—The important place draining occupies in Britain may be conceived from the fact that one draining engineer, Mr. Scott, in whose employment the professional drainers now in New Brunswick had been, employs as many as three thousand men in draining operations, frequently finishing up thirty acres in a day. Mr. Vener, one of the three men sent, at Mr. Thompson's request, had acted as foreman for Mr. Scott, having immediately in his employment one hundred and twenty men.

WHAT IS THE DIFFERENCE IN VALUE BETWEEN WHEAT IN GOOD CONDITION AND IF BADLY SAVED?

The Mark Lane Express says:—It has been a matter of surprise that with such a deficient yield as last year, the crops should have held out so well. There is, however, one circumstance that may partly account for it. It should be remembered that the yield of 1872 was almost universally damaged by sprouting; this, therefore, made the yield of flour unusually small. In our last crop if we had only the same quantity there was perhaps 6 per cent. more value in the flour. This estimating the crops at 12,000,000 is equivalent to 2,450,000 sacks of flour or 1,033,710 quarters of wheat; and as the sprouting of the former crop necessarily made the readiness for market late, with foreign supplies still coming on, though not over abundantly, may account for our holding out.

We learn from the Kingston Chronicle that another trial is made of direct shipment to Europe; the schooner leaving Toledo for Cork, Ireland. The establishing of direct traffic from the lake ports would be of great importance to Canadian producers and merchants, making the great provision marts of the world more easily accessible from the fertile territories of the Dominion.

CANADIAN BEEF FOR ENGLAND.—The Sherbrooke News says that Mr. Markwin, London, England, has written to the Council of Sherbrooke that the Company formed in England to import meat from Canada will locate their works for that purpose in Richmond, that town having offered very liberal terms. We think the time is not far distant when Canada will be found competing with the beef of the Home Country; and a good market opened up for all that the Dominion can supply. To take a full advantage of this—ever so favorable for our farmers—no expense must be spared in the improvement of our stock, and in improved agriculture generally.

WHEAT INJURED BY THRESHING.

In an article in the FARMER'S ADVOCATE, we not long ago referred to the injury often done to Seed Wheat in threshing. That such was often the case has been well known to observing farmers for many years; and even in the by gone days of threshing with the flail, expedients for its prevention were not unfrequently resorted to. One of these expedients was familiarly known as "scutching"; it had also another good result, it took out the best grains only, leaving what were inferior to be fed on with the straw. We now give an extract from a correspondent of the N. Y. Tribune, referring to the same subject:—"An important inquiry," etc. In some instances slippers were provided by the farmers to wear while threshing Seed Wheat with the flail, lest they bruise and injure it with their strong shoes on the hard threshing floor.

"An important inquiry has been made whether machine-threshed wheat is not injured for seed. It is stoutly claimed by some farmers that it is so injured. An instance is given of the plumpest wheat that could be found being examined under the microscope, and the coating was seen to be full of cracks and seams, and the germ was broken in several places. It is maintained now that we understand why the yield of wheat has diminished so much since the time power threshers were introduced, and this even on new and rich land, such as formerly yielded heavy crops. Seed wheat is imported frequently from Europe, and on trial it proved all that it was recommended, but after its cultivation has begun, and threshing is done by the machine, it becomes no better than our own varieties.

The Odessa wheat is mentioned as especially in proof for the reason that it comes from a country in which threshers are seldom used. This, too, explains why wheat seems to turn to chaff, and why so much is smutty. This is a subject worthy of the most careful investigation; and should it be found that the machine does injure wheat for seed, it should be ascertained, and then, next, whether threshing by the flail and even by horses does not injure it also. When it is considered that our farming is constantly growing better that land is plowed deeper, and that manure is saved more carefully, it is worth while to ascertain why the wheat crop is constantly growing less per acre. Still it would seem that if the fault lies in the machines, it would

have been discovered; but it is proper and very easy to have a demonstration.

It is held by not a few that "native grasses" are the best for pastures and that land is best fit for pasture if not at all cultivated after being cleared from the forest. We have made some enquiries as to the producing capacities of such pastures, and the replies have always been such as to convince us that such a course is very bad husbandry. Native grasses may be said to produce the richest milk and the best butter, though at this too we entertain grave doubts; but when we compass it with the producing capacity of land when well cultivated and seeded with a good mixture of suitable grasses, we see at once that leaving the land to its native grasses. The extract given below shows the results of cultivating land well. Such results can only be obtained from good labor and manure. Good pasture in Ireland will fatten one hundred cows or bullocks to the hundred acres; land uncultivated will, with the native grasses, feed half the number. Its feeding capacity is variously estimated at 3 to 5 acres to each cow. The greater number of good grasses in pasture the more valuable it is; and this mixture of the best grasses can only be had by sowing their seeds, and, to have them grow luxuriantly, the soil must be in proper till, well cultivated and manured. Such a judicious process will yield a continuance of nutritious feed throughout the season.

Ireland sent to England last year upwards of 68,000 cattle more than in 1872. The exportation of sheep to England increased by 86,000 animals. There would appear almost no limit to the producing capacity of the Irish pastures, or the consumptive power of the English people. One-half of the cattle and sheep imported from Ireland has hitherto entered England by way of Liverpool; but in consequence of the restrictions imposed upon the trade at that port Irish cattle are beginning to be sent to other harbors. Already apprehensions are expressed lest the price of butcher's meat should be increased through the decline of the Irish cattle transit through Liverpool.—Irish Times.

KANOPHYTE.—A new commercial manure, bearing the foregoing name, has been patented in the United States. We learn of the Prairie Farmer that "it is the product of confined combustion." Take any vegetable matter, as straw, leaves, corn-stalks, chips, corn-cobs, weeds, brush—any combustible matter. Make a convenient heap of this vegetable refuse, cover with soil, (clay is best,) giving only necessary ventilation, and burn it. After ten or fifteen days, when the burning is completed, stir and mix the whole together thoroughly. The product is the fertilizer, ready for use, which apply according to instructions, and excellent results will follow.

It is claimed that the remarkable effects kanophyte are largely due to "the pyrogenic oils generated by the action of the fire." It must be evident to all that, in the slow rotting process, or in open air combustion, a large portion of the organic elements so important to plant growth are lost in vapor and smoke, which this process aims to obtain as far as possible.

Is there such a thing as infringing on the privileges of a patent right before the article was patented or even discovered by the patentee? If there be, I must plead guilty. For many years have I been using "Kanophyte" before the patentee discovered it. But, seriously, there is nothing too simple or too long known to prevent people from taking out a patent for it as something newly discovered. At present I have a first-class crop of early rose potatoes grown on what is now named Kanophyte, and announced as patented; and for these fifteen years have been using it in this country, and I know not how long before. So far is it from being a new discovery very that it has been known and used in the Old Country since the very early days of farming. When as yet there were no agricultural societies nor farmers' journals, this manure was used, though not honored with a Greco-American name till now. The ashes so named are a very good manure, but too well known to present it to farmers as a newly-discovered and patented fertilizer. Canadian farmers, at least, are not quite so credulous as to be caught by such a bait. S.

The foot and mouth disease which has broken out in a virulent form in Dorsetshire, England, now affects 486 cattle, 289 sheep, and 70 swine in that county. The strictest regulations will be enforced in order to check the extension of the disease.

**Manitoba.**

We have in previous issues spoken favorably of Manitoba as a place for our farmers' sons. If our remarks have induced any to turn their attention towards that place, and any should be contemplating moving there, we now advise them by all means not to go this autumn, if ever.

Those that are now there are getting away as fast as possible, and those that remain must be old established settlers or persons under Government pay. Laborers need not think of earning a living there. Thousands of poor, beggared farmers would gladly labor for less pay than the commonest laborer can get in Ontario. The grasshoppers have destroyed the present crop and laid their eggs ready for next year's crop. We know young, industrious Canadian farmers that have gone there who are ruined by these winged pests.

Would it not be well for the Government to supply food to maintain life in the thousands that are now in Canada, rather than let them die of starvation, as we know some did last winter? and the prospects for this winter are worse for the emigrant than any previous year has been. Would it not be well to stop the salaries and expenses of many of those who only send us an inferior class of settlers, and devote the money towards the nutriment of the needy.

Farmers, we in Ontario have good crops and much to be thankful for; we are obliged to pay the emigrants for coming here, and keep them after they arrive, whether we are willing or not. We say it is wrong that we should be under the necessity of keeping the unsuitable emigrant, and that the Government should pay for the maintenance of those who cannot help themselves.

**The Crops.**

From personal observation we should judge that the hay crop is a fair average. In Lower Canada we saw some very heavy crops. Fall wheat will be rather below the average, if the amount of land that has been re-sown with spring crops is to be taken into account, and it should be, to show the results. The loss from the winter killing of this crop is immense. The samples of fall wheat will be good, but the average yield of the white varieties will be small, although there are many pieces of the Diehl that will turn out well. The red wheats will prove the most profitable.

Spring wheat will yield a much better return than it has done for some years past.

The barley crop is good and has a good color. Oats are one of the heaviest crops we have had for many years. The pea crop is rather over an average. The fruit crop is not a heavy one; below an average.

Stock has suffered for the lack of pasture, many herds will go into winter quarters in low condition, and the prices of lean stock will be low. The roots for stock will be only a moderate crop.

Potatoes in many localities will be but a poor crop, the drought having checked their growth; although in the western portion of the Province the rain came in time to give them a good growth. Taking it all through, the potatoes will be a fair crop. The prospects of prices are very good for the seller, although beef may not be quite as high as usual; other produce will command good prices.

If any of our subscribers are intending to reduce their stock of store cattle through the medium of the auctioneer's hammer, we would advise them to sell early, as at the late sales the prices are generally much below those of the early ones.

In Great Britain the spring crops will be below an average; in many places the food for stock will be unusually dear. The wheat crop in England, as far as we observed by going through the fields, were

the finest we have ever seen. The contrast in the appearance of their wheat with ours was most remarkable; their crops were longer in the straw and much thicker on the ground than ours. To look at the fields we should judge that they would turn out about double the average that our fields would do.

**London Agricultural Exhibition Grounds.**

There has been an attempt to deprive the farmers of these grounds, which are undoubtedly the best for that purpose in Canada. Great fears were entertained by the well-wishers of the agricultural interest that they would be taken by the citizens for city purposes. The citizens could make no greater mistake than letting them be taken for any other purpose, except for ornamenting them and making them more attractive, and still retaining them for the agricultural exhibitions, as we know all the lands in the vicinity of London, and are quite sure no grounds can be procured here half so suitable as the grounds we now hold.

The citizens and many of the persons on the Agricultural Board, and even in the County Council gave up in despair, but, thanks to the Provincial Board of Agriculture, who also have a claim, they, like men true to the interest of the farmer and the country, refused to sanction the transfer, as they well knew it would be detrimental to both the farmers and the citizens.

We who desire to retain this property for our agricultural Exhibitions can do so by sending a well signed petition to the Legislature. Farmers, we have a petition now prepared, lying in this office, for those interested to sign. With your aid we can get it well filled. We have no doubt but that our exhibition grounds can be retained. Come and sign it.

**A Talk About Fruit, Hedges, &c.**

When in Toronto lately, we called at Mr. Leslie's nurseries. We like occasionally to have a chat with Mr. Leslie; he always gives us some information. It is pleasing to walk over his grounds and see the different kinds of fruit trees, plants and flowers.

When passing along a low, wet part of the ground, Mr. Leslie said:

"You must call the attention of your brother farmers to the Lombardy poplar; it is a capital tree to plant, as it grows quick and makes a useful timber for building, fencing, &c. Plant them at a proper distance apart, and in five years you will have trees fit to nail boards to; the nails will not stop their growth. You can let them grow for wind-brakes, timber for building, fencing and firewood."

We said the wood was not durable; he said it was not as durable as many other varieties, but it would be found very useful. We coincided with him, particularly on seeing his row of trees, about 30 feet high and only five years old, and are now fit to nail boards to.

In passing his raspberry plantation our attention was called to the Franconians. He says they are the most profitable berries to raise; he has a quarter of an acre of them. He has now sold 800 quarts of them, and will yet have 200 more to sell; the wholesale price of them is 15 cts. per quart, and they cost 1 1/2 cts. for picking. They are large, fine, well flavored berries, and are used as a table fruit. The Philadelphia raspberries, he says, are most prolific, but are more like the common raspberries; they are enormous croppers, but can only be sold by the pailful, and are not so profitable as a market berry. They are hardier than the Franconian Raspberries, succeed much better when grown under the shade of other trees—do not winter kill, as in the open ground.

His Downing's Seedling gooseberry he considers the most profitable. They do not mildew, and are fine, large, smooth, green berries. We admired the crop and favor very much. The Houghton seed-

lings do not mildew, and are very large croppers, but not as large, and will not command as high a price.

Apples are a poor crop with him this year, but the plum trees are well laden; the Curculio has done them very little harm this year. He did nothing to destroy them; we presume they must have been destroyed by some parasite.

The Pear trees have been more damaged than ever with the blast or some unknown cause; all varieties have suffered about alike. Many apple trees have also been more blasted than usual.

We passed a nice looking beech hedge; it would turn any kind of stock. This is the English beech, which variety will retain its old leaves till July, thus making one of the best winter wind brakes. We do not know how it would fare if exposed to cattle, as this fence is in the enclosure. The Buckthorn, we know, will make the best hedge, but we find the trouble in raising the plants is considerable, as the fly will destroy them when young, and destroy them as they do the turnip. To prevent this, we find Mr. Leslie raises them from seed under apple trees, where the fly will not attack them as badly as in open spaces. It is only when the young plants appear first above ground that they are eaten; after the first year they can be planted safely in open spaces.

**Our Travels.**

After preparing the June issue we left our office and spent one month in England and France. Our visit was far too short to attend to all things we should have liked; at the same time we have made some arrangements in regard to your paper that we feel sure will be approved of by you. We have given you a few jottings of our observations, and shall give you more in future numbers.

Since our return we have been to the north, near Ailsa Craig, to examine a lot of potatoes and wheat we had testing in that part of the country; also, we have been to Howick and Chatham in quest of information for you, and also to the Government Farm.

On our way to Toronto we called at Edmonton, &c., and we hope to give you an account of our observations in future numbers. We must not occupy the whole space of one paper with our writings, as we wish to leave a good space for all the departments.

Some of the potatoes we are testing we think will be of advantage to you; the spring wheat reports will be more favorable than usual; the fall wheat reports you have in this issue; in oats we shall be able to report favorably on some varieties. We find the Chinese Northern Yam has not succeeded well, and the Japan pea will not ripen here; our season is too short.

**Seed Wheat.**

We see in our exchange papers some advertisements of new varieties of wheat. Some are advertised with considerable zeal. We happen to have seen and observed the growth of some of them; in fact we feel perfectly safe in saying that there is no tried wheat, that has stood the trials of our winters and summers equal to the Scott wheat. Some of the new varieties are very liable to winter kill or to rust.

If there was a safer or surer variety than the Scott wheat to recommend, we should with pleasure introduce it to you, but we have personally tested or examined and enquired into the habits and growth of each variety, and believe, from the experience of past years and the results of the average yield and hardness of the different kinds, that the wheat we recommend will be the most profitable for you; in fact, we should say considerable in condemnation of some of these advertisements, but the law of libel is such that even if we publish real facts that we know and can prove to be truth, we might be mulched out of heavy expenses. This may be sufficient for you.

We will send each of the purchasers of Scott Wheat a small sample of one of the wheats that is advertised at high price, and which we think is the safest, so that you can judge from actual test, perhaps of white varieties introduced. The old bald, red-chaffed, white wheat or Clawson wheat may be the best. We can supply it by the peck or bushel—\$1 per peck, or \$3 per bushel; at the same time we do not safely recommend it. Should the season and locality prove favorable, we do not doubt but a good crop may be obtained.

**Stock Importations.**

This season many of our Canadian Breeders have attended the Royal Agricultural Exhibition in England, and have purchased more extensively than usual. We expect to see a fine display made from recent importations at the Provincial and other prominent Exhibitions. The energy shown by the inhabitants of Guelph, Hamilton and London, in offering such very handsome prize lists is encouraging and hopeful, and shows the great interest taken in these Exhibitions.

On our way to Toronto we called to the Willow Lodge Farm stock, at Edmonton. The Durhams are reduced to very small number, but they are choice animals. The Snell Bros. are importing a lot of Cotswolds and some Berkshire Pigs. They have a fine lot of young strong well woolled lambs, such as we think will be hard to beat. Of course they pay attention to them. They have a run on a field of rape, also a clover field. This, with the addition of a little grain daily, gives them a growth of carcass and wool, such as no common farmer can have without great pains and constant attention. Of course their stock from Palmer, and other celebrated rams, is such that it is difficult to find better; they also have many fine improved Berkshire pigs of different ages.

Mr. Snell called our attention to one of his lambs, the ears of which were much swollen being about three times as large as they ought to be. They hung drooping the lamb appearing to be in great pain. The only cause he could attribute to was from the lamb running among the flock last year in which many of the lambs had lost their ears, and they attributed to running among the rape. If any of our readers can give any information in regard to this, and a proper remedy, we should like to hear from them about it.

**Implements.**

Mr. McGarvin, of Chatham, has an improved plow, which will turn up ground in such a shape as to be easily taken hold of by the harrow. It is said to make the best furrow for seeding. The plow may be rather more expensive to keep in proper order, but an improvement on agricultural implements deserves our attention.

A combined reaping and binding machine was tried in London township, and it appears to have worked most satisfactorily. It will cost about \$130 more than our common reapers. We presume they will be in the market next year.

NOTICE.—Some person has been using our name in a false manner to effect sale of patent rights on a harrow. We have no interest in such; we do not use one of the harrows, neither have we ever had one tried on our farm. We do not advise any one to invest in a township or county right in it. Do not credit any one as our agent, and he is in the paper business in the eastern part of Canada if he would prosecute it one or two pretenses it would do a good service to the country.

There is a patent fanning mill now being introduced, or, rather, the patent right of it. We do not recommend subscribers to have anything to do with it.

**Agriculture.**

The Mark Lane good authority—appointing judges of having fresh is a fact that our If a person is once is appointed year no other person in locality that was it not well to opportunity of show It is now well known practical men that called on; and a peised with are not a little change as in England? One great reason of the change in once given in fact or strain of blood must substantiate right or wrong.

**The Agric.**

Notice was given of the Stock Book month. The regulations for stock which alone was stock; but that of participating ciation, as yet allotted to each the first subscri up by other ind company no one sum for which ed that the sto value, and that will be great shares are \$20 that is required \$20 will be pay Directors.

Those who v apply early to Sec'y, London

OBITUARY.—whom not only the civilized w his labors and alist, has die good age of 80 may not have works, but th acquired and p writings have that there are tion of the soc labors. After cation, Mr. S with a farmer and who had the best farm made himself the agricultu travelled on to attain a know crally. What proceeded to 300 acres, madies. He farming and burbs of Edi edited the Q and, for some Highland a Journal had writer reme agriculture, Even in the equal reput Magazine, th edition. It ed on the w is a slight t Mr. Stephen of the Farm ments and Buildings," Manuel of Deep Land Practical A for those de enquire by sent was a the Advoc ed, to wit: study, unit if not on hi for a term form.r. I would pro lege course

T I G H T

B I N D I N G

**Agricultural Exhibitions.**

The *Mark Lane Express*,—and that is good authority—complains of the mode of appointing judges, and suggests the necessity of having fresh men in every year. It is a fact that our directors should consider. If a person is once appointed as a judge, he is appointed year after year, as if there was no other person in the Province or in his locality that was capable of acting. Would it not be well to give other farmers an opportunity of showing their skill or learning? It is now well known that there are many practical men that are fit to act, but are not called on; and many that might be dispensed with are still to the fore. Would not a little change be as beneficial in Canada as in England?

One great reason given for the necessity of the change in judges is because a decision once given in favor of a particular animal or strain of blood, the following year they must substantiate their previous decision, if right or wrong.

**The Agricultural Emporium.**

Notice was given in the last issue that the Stock Book would be opened the past month. The result has been that 9 applications for stock have been entered, one of which alone would take one-fifth of the stock; but that all may have an opportunity of participating in the benefits of the association, as yet only one share has been allotted to each, but more will be allotted to the first subscribers, unless they are taken up by other individuals. Remember in this company no one is liable for more than the sum for which they subscribe. It is expected that the stock will quickly increase in value, and that those who first take stock will be greatly benefited thereby. The shares are \$20 each, one-fifth of which is all that is required down. The balance of the \$20 will be payable only at the call of the Directors.

Those who wish to secure stock, should apply early to THOS. W. DYAS, Provisional Sec'y, London, Ont.

**OBITUARY.**—Mr. Henry Stephens, to whom not only agriculture, but Britain and the civilized world at large, are indebted for his labors and writings as an agriculturalist, has died at Bonnington, N.B., at the good age of 80 years. Some of our readers may not have read any of Mr. Stephens' works, but the agricultural knowledge he acquired and practiced, and in his valuable writings have been so widely disseminated that there are none engaged in the cultivation of the soil who have not profited by his labors. After having received a liberal education, Mr. Stephens lived for three years with a farmer who cultivated a large farm, and who had the reputation of being one of the best farmers in Scotland. Having thus made himself thoroughly acquainted with the agriculture of his native country, he travelled on the continent, that he might attain a knowledge of that of European generally. What he had thus learned he now proceeded to put in practice on a farm of 300 acres, on his own estate of Balmadies. He, after some time, retired from farming and took up his residence in the suburbs of Edinburgh. He for many years edited the *Quarterly Journal of Agriculture*, and, for some time, *The Transactions of the Highland and Agricultural Society*. The Journal had a very wide circulation. The writer remembers what an effect it had on agriculture, and how much good it effected. Even in the sister kingdom it was held in equal reputation with the *Irish Farmers' Magazine*, though it was of much heavier edition. Its early teachings is still impressed on the writer's mind, and this obituary is a slight token of grateful remembrance. Mr. Stephens' other works were "The Book of the Farm," "The Book of Farm Implements and Machines," "The Book of Farm Buildings," "Physiology of the Farm," "A Manual of Practical Draining," "Vestry Deep Land Culture," and "Catechism of Practical Agriculture." It would be well for those designed for the same profession to enquire by what means he became so eminent as an agriculturist. The course he pursued was such as we have recommended in the *Advocate*, the continental tour excepted, to wit: 1. A liberal education. 2. A study, united with practice, of agriculture, if not on his father's farm, as an apprentice for a term of years with some really good farmer. This system, we have always held, would produce better farmers than a college course could do.

**Patrons of Husbandry.**

The following Granges have been organized since our last issue. As we print so early this month, the report is only of two weeks' work.

**34—UNION GRANGE.**

David Patterson, Master, Copetown; M. C. L. Kitchen, Secretary, Copetown.

**35—HALTON GRANGE.**

Robert Howes, Master, Drumquin; John Phenix, Secretary, Drumquin.

**36—NORTH OXFORD GRANGE.**

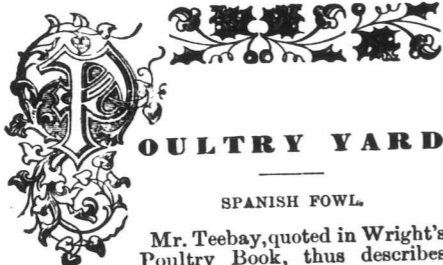
Jonathan Jarvis, Master, Ingersoll; Edwin Jarvis, Secretary, Ingersoll.

**37—ELM TREE GRANGE.**

James Manning, Master, Schomberg; M. C. Brandon, Secretary, Schomberg.

**38—BEAVER GRANGE.**

Samuel E. Phillips, Master, Schomberg; Isaac Powell, Secretary, Schomberg.



**POULTRY YARD**

**SPANISH FOWL.**

Mr. Teabay, quoted in Wright's Poultry Book, thus describes the Spanish fowl:— The face of the cock should be entirely free from coarseness for in the very coarse, lump faced birds, the white as they get older will close up the eye so as to prevent a bird from seeing. When this arises from the white under the eye getting so puffed out as to prevent the lids from opening, a piece of the white may be cut out so as to allow the eye to open freely.— Cockereels with the white over the eye running to an angle toward the back part of the face, have very often the sight destroyed in the second year by the white over the eye growing down.

As this part cannot be cut without disfiguring the bird, a small piece of thread is put through a small portion of the white above the eye, passed close to the back of the comb over the top of the head to the other side, and through a corresponding portion of the eye there; this is then tied so as to raise the white on both sides, and leave the sight unobstructed. The Spanish cock's beak should be long and stout, and of a deep horn color. The comb should be bright red, single, firm and well set on the head, so as not to shake about; thick at the base, and so gradually thinner to the edge; perfectly erect, straight, free from twist either in front or any other part. It should rise from the beak between the fore part of the nostrils, and extend in an arched form over the back part of the head, the under part at the back almost touching the top of the neck. It should be deeply serrated, the serrations beginning about an inch from the beak, and being small in front, gradually increasing in size until they reach the higher part. The head should be large altogether, being both long, broad and very deep sided; the eyes large, perfectly free and open.

The face and ear lobe should be of the purest white, and the texture soft and delicate, like the finest white kid; smooth and free from ridges or folds, the sight being perfectly free and not obstructed by the white. The white should reach well on to the beak in front, and rise over the eye close to the base of the comb, in an arch, and extend well towards the back of the head, the further over and behind the ear the better, and continuing to extend without any break in the line, towards the back of the upper part of the neck. The ear lobe also should be long, broad and open as possible, spreading out on the neck perfectly free from folds, and hanging down very low, not in any degree narrowing to a point, but preserving its width well until neatly rounded on the bottom; coming up again in front of the neck, and joining the wattles, which last should be bright red, long and thin, the inside of the upper part and the skin beneath, white.

The neck of the cock should be long and gracefully arched, with the hackle abundant and reaching well on to the shoulders. The breast is prominent and most beautifully rounded, and the body neatly narrowing to the tail, with the wings close up to the body. He carries himself proudly and rather upright,

giving the back a neat even slant to the tail, which is amply adorned with fine curved sickle feathers, and is carried rather upright. The thighs and legs long and neat, the latter being of a dark leaden hue. Plumage a rich glossy black, with a beautiful metallic lustre on the higher parts.

In the Spanish hen the beak is also of a deep horn color, or nearly black; but the comb, though large, single and deeply serrated, falls entirely over one side of the face. The face resembles that of the cock, but is smaller; and the wattles in the female sex are preferred small and thin. The larger the face is the better, if fine and free from ridges or coarseness; and there should be no apparent division between face and ear lobe. The shape of the hen is very graceful and much the same as in the cock, allowing for the usual difference in the two sexes.

**LARGE TURKEYS AND TURKEY BREEDING.**

A passion for the extra size is one of the weaknesses of the American mind. In the decisions given at our fairs, weight is not only an important item, but the one thing needful. In a scale of one hundred points, weight would be the equivalent in the minds of most judges. It is the big swine, the big pumpkin, and the largest fat ox, that take the premium. Economy of fattening, or the process of production, is seldom inquired after. The same bad taste is likely to affect the decisions in our poultry shows, unless the managers insist upon a more wholesome standard. A large, well developed bird, of maximum size, is desirable. A monster is not good for any conceivable purpose, except to excite wonder and draw the crowd. We raise poultry chiefly for the table. What the producer wants in his stock is good quality of flesh, early maturity, and capacity to make the most flesh out of a given amount of food. A turkey weighing 15 pounds is just as good for a table as one weighing 30 pounds, and most housekeepers would prefer them under 12 pounds.

In most markets the lighter weights would bring the higher price. It is only in the region of large hotels and boarding houses that the very large birds bring an extra price. For what object, then, do we want them? It takes about three years for a turkey to attain its largest weight. If at twelve months a gobbler reach 30 pounds live weight, at two years he would reach 35 pounds, and at three years 40 pounds, or a little more. But it is rare to get a male bird above 40 pounds, and then it is generally by some process of starvation that destroys his stamina and shortens his life. This weight is excelled sometimes, but about the time one thinks he is almost sure of a 34 pounder, the prodigy sickens and dies. It may be assumed, then, that 50 pounds is about the limit to which a vigorous turkey-cock may be safely carried, and from half to two-thirds of that weight is the last safe limit for the hens.

With breeders of this size, and a little under, we should get large, strong chicks, that will economize food and mature earlier than the offspring of common-sized birds. No birds yield more quickly to treatment than turkeys. The influence of a large-sized gobbler in a flock is immediately visible in the increased size of the chicks. The introduction of wild blood increases the hardness of the young. A larger proportion of the eggs will be likely to grow up. With a little pains-taking, it is quite easy to breed to any desired shade of plumage.—*American Agriculturist*.

**EDIBLE QUALITIES OF BRAHMAS.**

Fowl fanciers and writers often make great mistakes in the eaking of certain breeds of poultry. Brahmars, for instance, are said to be unfit for the table until seven or eight years old, and then are set down as dry, and coarse in flesh. Regarding myself as an epicure, and having raised fowls of all breeds, and eaten them at all ages, and with all sauces, I do pronounce Brahmars as equal to the best quality of fowls at the age of four or five months, being at that time very tender and juicy, and weighing from seven to eight pounds per pair. Brahmars, for hardness, quick growth, good laying qualities of large and abundant eggs, summer and winter, should place them high in the scale of estimation of those wishing to keep a quiet, handsome and useful fowl.—*Journal of the Farm*.

**CHOLERA CHOLERA.**

This is a malady of which little is known. We have obtained all the information we could respecting this disease, since it first prevailed in the West a few years ago. There is a very malignant type, which almost always proves fatal; and a milder form which appears in some localities, destroying not more than half or one-third of the birds attacked. The best medicine that has been reported is alum-water, made strong and given for drink, mixed with their soft feed. Many of the medicines offered for the cure of the disorder are entirely worthless.—*Live Stock Journal*.

**SULPHUR FOR FOWLS.**

There is no remedy and assistant so easily and cheaply obtained, so harmless to the fowl, or so satisfactory in its results as sulphur. It being in the system of animals to a small degree, there is a greater affinity for it than there otherwise would be. It can be administered to the fowls by having it in a small box, so that they can help themselves, or by mixing it with their food once a week, or as often as there are indications of vermin. Penetrating, as it does to every part of the system, all parasites are quickly and surely destroyed. Also, gapes are said to be prevented in chicks. Fowls need it more than most animals, their feathers containing between four and five per cent. of sulphur. Their eggs also have a small quantity, which is noticed by the discoloring of a silver spoon when it comes in contact with a boiled egg.

Applied externally to the fowls when on the nest, to the nest itself, or mixed with the soil in the dusting box, it is equally efficacious in destroying vermin. Lard mixed with sulphur in proper proportions and applied as often as is necessary to the feathers on the neck and back of young and old turkeys, is a very good safeguard against the ravages of foxes. For our own profit and the comfort of the fowls, let us then use sulphur or remedies of a like nature.—*Poultry World*.

**YOUNG DUCKS.**

The best food for young ducks is oatmeal.— If they are hatched under a hen, you may let them be at liberty with her, providing them with oatmeal mixed with water in a plate. If there is water they (to the hen's great discomfort) will dabble about on the edge of it, and find some food. If hatched under a duck, the safest plan is to confine them for a fortnight in some old place, such as a pigstye, where the faulty paving or earth allows of puddles.— They must be fed here in the same way. The objection to a duck being at liberty with her brood is, she drags them about towards evening, when the flies are about; she takes them under beetle banks, and often leaves some behind. Where there is only a small and open pond the duck may be safely left at liberty with her brood.—*Cottage Gardener*.

**WATER FOR HORSES.**

Soft water is in all cases better than hard. If, therefore, soft water can be easily procured, it should in all cases be given, but we do not think it answers well to allow the horse to slake his thirst at the pond or brook at all seasons. Boiling gets rid of a great proportion of the lime, and where it exists in great quantities it is advisable to give all boiling water. The temperature of the water given should in all cases be that of the stable, or very little below it; and so in the warm one the water must be raised to at least 70 degrees of Fahrenheit, by mixing a little hot with the cold, or by leaving the bucket full of water constantly in the stable, and only using it when it has acquired the temperature of the stable. If cold water is given to a horse used to it chilled, and to warm stables, it sets the coat the wrong way directly, and often produces colic or shivering, followed by rheumatism; and this is especially likely when he has undergone any violent exertion, and becoming cool from it. It does not nearly the harm while the horse is reeking with heat and perspiration, that it does when given to the tired horse just cooling down from his exertion. If, however, chilled water is generally given, it should be rigidly adhered to when the horse is travelling, for an animal used to it is far more likely to be injured by cold water given when in a sweat, than the one that habitually swallows it at a low temperature with his ordinary food.

The quantity of water proper for a horse varies much, depending upon his tendency to purge, upon the amount of sweat he loses in his work. About one and a half or two ordinary bucketsful per day is the average, depending on the size of the horse and the severity of his work; and if water is allowed regularly, few healthy horses will drink more than two bucketsful per day. More than a couple of quarts should never be given on the road or while working, even on the hottest day; but this quantity may be repeated every few hours with advantage, when the weather is very sultry, with or without a little oatmeal. It is seldom advisable to give the full quantity of water immediately before or after the feed of oats, but rather to let the horse drink about two quarts, and half an hour after his feed to let him have the remainder. If the oats are not given for half an hour, the water will not hurt if all is given at once.



## AGRICULTURAL.

## SHEEP AS A CLEANSING CROP.

How to clear our pastures of brush and weeds is a very important question in all our grazing districts. As a matter of fact, upon most dairy farms it requires the utmost vigilance and considerable expense annually in cutting brush to keep them clean. The grazing of cows and young cattle alone will not clean the land from brush and weeds. Patches of briars, wortleberries, sweet fern, hazel nuts, scrub oaks or other brush spring up, and spread year by year until the grass is crowded out and the land is covered with a young growth of forest trees. In many of the older States there are large tracts of land now covered with timber, that forty years ago were in pasture.

In the case of rough, hilly land that can never be plowed, this return to forest is often desirable. But a certain portion of every farm is needed for pasture, and if animals can be substituted for human labor in killing brush and weeds, it is exceedingly desirable to know it. We recently visited two farms lying side by side, with no perceptible difference in the quality or moisture of the soil. The pasture lands were only separated by a stone fence, but something much broader than a fence line had separated the management of the two farmers. The one pasture had been grazed by cattle for a long term of years, and the policy had gone to seed in a magnificent growth of alders, wortle-berry brush, young maples, vortain, thistles and golden rod, briars and other brush and weeds. There were patches of grass in perhaps one quarter of the field, where the cows got a scanty living.

The other pasture, in addition to its cattle, had the constant tread of a flock of one hundred and sixty sheep, and their hoofs in this case certainly had been gold. Besides all the wool, lambs and mutton sold from the flock, they had paid for their keeping every year in freeing the pasture of brush and coarse weeds, and in enriching it with their manure. There was no brush of any considerable size, and very few weeds. And we learned from the proprietor that sheep were the only agents employed in keeping the field clean. They had nibbled the young shoots every year as they started, and what they had not killed outright by this cropping, they had kept even with the grass. There was good feed in every part of this pasture, even late in the fall, and the owner of this farm used this contrast between these adjoining pastures as a standing argument in favor of sheep husbandry. It was very much to the point.

If it is true, as George Geddes asserts, that sheep in certain proportion to cattle pay their way in a pasture naturally clean, they must pay much better in pastures inclined to produce brush and weeds. We have had occasion to notice the beneficial effects of the grazing of sheep upon another farm that has been under observation several years. They have not only subdued sweet fern, briars and thistles, but have greatly improved the grasses. The sod is much thicker and heavier, and the white clover has come in where once it made no show at all. In pastures where the brush is already strong, and higher than the sheep can reach, it cannot be expected that they will conquer. But if the brush be cut for a season or two, and the sheep turned in sufficient numbers upon the young growth, they will keep it under and eventually destroy it. This is much cheaper than the use of the scythe and plow perpetually.—*American Agriculturist*.

## EUROPEAN GRAIN MARKET.

The forcing weather of late has materially changed the prospect of harvest time, but the occasional storms and falls of rain have made little difference in the hay crop and that of spring corn, from the long drought since winter, and the powerful sun overhead. Hay farmers complain they have very little to gather. The haulm of the beans and peas as unusually short, and on the light land oats and barley must be nearly a failure, unless more rain in quantity and continuance be forthcoming. Wheat, which

only needs warmth, has received signal benefit, and there now seems every chance of a successful bloom, the chief point after all.

The summer's sun has been well doing duty all over Europe, but there is still an outcry for rain in many parts of France, and native stocks of wheat are evidently at their lowest; though the prospects of an earlier harvest are better, foreign supplies have checked the upward movement in the provinces. Paris has, however, recovered the lost franc in flour, and the wheat trade has been steady. Algiers is anticipating harvest time, but even there no change of value is expected before the end of August, while a visitation of locusts has made sad havoc of the potatoes and pulse, though wheat and other grains have escaped.

The summer heat, however, of the past week could not fail to influence prices here, for if a fortnight be saved in time we can do with one million quarters less of wheat, a very important consideration with stocks as reduced. The last week's returns show again our deliveries below last year's—say 6567 qrs. wheat. In France, Belgium, Holland and some parts of Germany it is much the same, and never will a new year's crop be received with a heartier welcome; while the blackness of famine yet darkens both Asia Minor and India, though with a much less fatal result than at one time feared; and Egypt, that ancient store-house of corn, has done nothing in the shape of contribution this year towards other lands. Even Hungary, with improved prospects, has again recovered 1s 6d per qr., but Dantzie, with light supplies, resists a further decline, and Hambro', with no stocks to burden holders, is looking to America for help.—New York is a shade easier again, but seems at about its lowest, and Southern Russia has not yet adjusted her market so as to meet those of Western Europe.—*Mark Lane Express*, June 15th.

## RUSSIAN BUCKWHEAT.

Silas Alward, Esq., barrister at law in the City of St. John, visited the great Exhibition held in Paris in 1867. While strolling through the Russian Department his attention was directed by a Russian gentleman to a fine and extraordinary large sample of buckwheat. He found that it was grown in the northern portion of Russia, and from the rapidity with which it grew and matured was called the "six week buckwheat." Mr. Alward brought home with him about half a wine glass of the grain, and gave it to his father, John Alward, Esq., of New Canada, Queen's County. That gentleman sowed it, and found its early maturity was not impaired by its transference to another continent. It has become diffused through that section of Queen's and the neighboring County of King's.

Mr. F. D. Ganong, who lives at Belleisle Point, K. C., the year before last raised two crops in succession on three-eighths of an acre. He sowed the first time on the 8th or 9th of May, and harvested in July. The grain was a good deal lessened by the depredations of the birds, great numbers of them settling on it, owing to the scarcity of similar food at that season. On the 5th of August he again sowed the same piece and harvested a much better crop than the first one.

The grain is a smooth variety, larger than our grey kind, and somewhat of the appearance of a beech-nut.

Mr. Ganong keeps a store at the Point, and cultivates a small piece of land. He believes his farming neighbors cultivate over too much surface, and if they would lessen the area and use more manure, there would be better returns.

When the Early Rose potato was first introduced, he procured one pound and raised one hundred and forty-three pounds from one. The potatoes were cut into pieces containing a single eye, and dropped a good distance apart.—*Colonial Farmer*.

## ROBBING THE LAND.

"Most farmers think their deeds only give them six inches of soil," is a true remark. How often we are shown fields that "used to" produce fifty bushels of wheat to the acre, but now do well if they produce twelve bushels. There is no necessity for this. The soil has been robbed, and if any man should rob his neighbor of one-tenth the amount he does the soil he would be imprisoned. Man has taken away three-fourths of the soil by laziness and ignorance. If a man starts on a journey with one hundred dollars, and at each mile is robbed of one dollar, and receives back one-fourth of a dollar, he will soon be impoverished, and that is the way it is with land. Farmers must learn that in air and water are all the elements of fertility in their elementary forms, and that what is found in earth is appropriated by the roots of plants and released by them in decay-

ing, and that manures are valuable only as they contain these elements, and if left until all are disintegrated and released it is worthless; also that grasses and vegetables appropriate these gases and transform them into fiber, and that plowing down a rank growth of weeds or grasses in applying manure at the rate, on an average of one hundred tons to the acre, and that this is not all used up in the next crop, but aids other crops planted upon it to exert greater powers of absorbing nutriment from air and water. Hence the need of manuring. Again there is locked, especially in stiff clay soils, in the sub-soils an immense amount of inorganic matter, that the roots of growing crops will appropriate if the soil is stirred deep enough to allow light and air to penetrate it and unloose the giant elements on which the suckers of the roots will fasten and gain strength. Lecturers in Granges should elaborate this idea more fully.—*Buckeye Farmer*.

## WHEAT.

It is always well to look out early for the seed for a future crop of wheat. It is quite as important for the farmer to seek to improve his grain as his stock. There yet remains as much room for improvement in our cereals as in our cattle and horses. There is as much "scrub" in grain in the country as "scrub" stock. Improved stock bring improved prices. So will improved grain for seed. The average yield of wheat per acre in this State does not exceed twelve bushels, while, with improved seed and improved culture, it might be raised to thirty bushels.

There is no law of nature more universally applicable than that "Every plant produces seed after its kind." The best culture possible will not produce superior grain from inferior seed. Every farmer should make a special effort this year to sow better seed than last. Let every grain be full and round. Use the screen and separate from the seed every little shriveled grain and all foreign matter. Let none but the best and purest grain be sown. It is not good husbandry to take your seed wheat from the common stock prepared for the mill or market. Select from the field the patches containing the largest and fullest heads of seed, and thresh and keep separate from the market grain. Do this for the present, but do not rest satisfied with this. There is large room for improvement.

The same care that is used in improving stock will improve grain. Select the best heads from your best grain—heads that are large, long and perfectly filled. Sow this seed on ground thoroughly prepared. Though the patch may be small, it will furnish a beginning for improved grain. Follow up this process year after year, and the result will be grain that will compare favorably with the most improved breeds of short-horns, and will command correspondingly high prices.—*Indiana Farmer*.

## EARLY CUT GRASS BEST.

The German papers publish details of a series of experiments carried on at the agricultural school of Fatherland, for the purpose of testing the nutritive properties of grass and hay at various stages. The experiments were initiated by the excessive demand for forage in Germany, but are not the less valuable on that account. By an elaborate series of analysis, it is shown why young grass is more nutritious than mature grass. The physiological experiments show that it is more digestible. Thus grass two and a half inches high contains more woody fibre and less flesh forming matter than the young grass. Hence the difference of nutritive value and digestibility. Autumnal hay was found to be more nutritious and digestive than summer hay.

## THE FARMER'S HOME.

The Hon. Dudley W. Adams, Master of the National Grange of the Patrons of Husbandry, in closing his Fourth of July oration at Ottumwa, Iowa, gave the following as his idea of what the farmer's home should be:

Select the handsomest spot of all, and erect a house of neat and tasteful proportions and convenient arrangement. The size, finish and expense will of course be governed by the means at command. Plant trees, both forest and fruit, in such a way as to break the sweep of the winter winds. Donate a reasonable patch of ground to small fruit and vegetables, sufficient to supply your table with abundance of all desirable kinds all the year round. Make an acre or more of lawn in front and around the dwelling, interspersed here and there with some ornamental shade trees, evergreens and flowering shrubs. Train an ivy over the porch, a honeysuckle on the window. Hide the sheds and outbuildings with a clump of trees or climbing vine.

Your wife and daughters will have some artistic flower-beds cut in the lawn, and a rose bush by the door, while singing birds will build nests in the trees. Make the inside of the house attractive—a pleasant place to sit, with inducements sufficient to keep your sons

from saloons and your daughters from the streets.

Among the absolute necessities of life, I most decidedly and emphatically place amusements, sports, fun. A good ringing laugh is worth more to stir the liver and promote digestion than a dose of calomel, and a deal pleasanter to take. If you ever come across a person, old or young, who cannot on proper provocation, give out a good ringing, hearty laugh, watch him! He is either after your pocket-book or the undertaker. Joy, fun, laughter, sterling good, hearty, wide-awake happiness, are among the most noble and desirable of human attributes. Nothing but men can laugh. Do not smother but cultivate this distinctive feature of humanity.

## WHY OATS FLOURISH IN SCOTLAND.

In a lecture recently delivered by the Aberdeen College Professor of Agriculture, he has in reference to the soils of the North of Scotland:

"The greater part of the North of Scotland, what we are accustomed to call the Highlands, consists of the older crystalline rocks, the gneiss, mica slate, quartz rock, clay slate and granite. The rocks are generally of a hard, solid nature, and do not yield readily to the weather, and when they do moulder down, they give rise to soils which are commonly not very difficult to work, and are well adapted for the cultivation of oats and turnips, being a light, free, or friable texture, unlike the heavy clays of England, some of which can scarcely be ploughed by a pair of horses. These rocks of our Scotch Highlands have been the source from whence a great part of the superficial deposits have been derived that overspread the lower grounds of the surrounding districts, the glaciers and rivers having both flown downwards from the mountain chains and great watersheds of the Highlands. Now the mineral nature of these rocks explains some of the peculiarities of our Scottish soils, especially in the northern counties. There is a great deficiency of phosphates and of lime in all these rocks, and consequently we find that our Scottish soils, as a rule, are very much wanting in these ingredients. No doubt there are some beds of limestone here and there among our Highland mountains, but they are of too local and of too limited extent to affect the general character of the district; and consequently we find our Scottish rivers contain far less lime than those of England. This gives the water a softer character, and makes it more suitable for washing with. The analysis of our Scottish soils, also, as a rule, exhibit a much smaller per-centage of lime than those of England, and those of the North of Scotland are poorer in this ingredient than even the soil of the Midland and Southern Counties. The same remark applies to the phosphoric acid. In all the soils derived from these old rocks, the gneiss, granite, &c., there is a marked deficiency of phosphoric acid, and hence the greater demand for bone dust, superphosphate, and all those manures which contain this ingredient. It is this poverty in lime and superphosphates that constitutes the weak point in the soils of the North of Scotland, and has helped to stamp them with the aspect of barrenness which only the industry of the inhabitants has been able to efface. It is this which makes Scotland so much a land of heather. Wherever you find a hill of limestone, there you have grass and verdure, and, in order to banish the heather effectually from the newly reclaimed soil, there is nothing better than a good dose of lime. Lime discourages the growth of heaths in general, and also fir-trees (Lindley). We see, therefore, that the heatherclad surface of our Scottish hills—this land of brown heath and shaggy wood—arises in some measure from the want of lime in the rocks. The poverty of lime in our Northern hills and soils is also a reason why Scotland is so much a land of oats. Of all our grain crops, the oat is the one that does with the least lime. Barley loves a calcareous soil, and so does wheat, but an extra dose of lime will in many cases spoil a field of growing oats if it be of a thin, light texture, and good crops may be grown on land in which there is very little of this element. Although the rocks of our Scottish Highlands are weak in lime and phosphoric acid, there is generally no lack of potash and magnesia, and this is so far favorable for the growth of the turnip crop, which draws lightly upon the potash of the soil, as also does the potato and the straw of the grain crops in general. Accordingly, it is found that potash manures have seldom much influence on the crops,

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North of Scotland, to call the High- crystalline rocks, rartz rock, gray slate re generally of a not yield readily they do moulder ills which are com- o work, and are ation of oats and or friable texture, England, some of oughed by a pair of our Scotch High- from whence a ial deposits have spread the lower ing districts, the both flown down- chains and great lands. Now the ecks explains some ur Scottish soils, a counties. There hosphates and of d consequently we is, as a rule, are these ingredients. beds of limestone Highland moun- local and of too e general character esequently we find r far less lime than gives the water a es it more suitable nalysis of our Scot- exhibit a much me than those of North of Scotland ent than even the Southern Counties. to the phosphoric e from these old e, &c., there is a phosphoric acid, and that for bone dust, ose manures which It is this poverty es that constitutes of the North of to stamp them with which only the in- has been able to rakes Scotland so r. Wherever you here you have grass der to banish the e newly reclaimed ground than a good dose ges the growth of e fir-trees (Lindley). t the heatherclad hills—this land of rty wood—arises in me in our Northern eason why Scotland Of all our grain that does with the a calcareous soil, a extra dose of lime a field of growing t texture, and good and in which there ent. Although the lands are weak in there is generally gnesia, and this is r growth of the turnip s upon the potash s the potato and ps in general. Ac- at potash manures ence on the crops.

With us iron also is generally present, and often in so large quantities as to be injurious, forming a pan or hard stratum between the soil and the subsoil. The heather is a plant that takes in a good deal of iron; and this is another reason why the hills of Scotland are so favorable for its growth. We see then, that the granite and gneiss rocks of Scotland give rise to soils which are characterised by a deficiency of lime and phosphoric acid, and by a richness in potash and iron, and I should also add to the element called silica, which, however, is one that few soils want. Owing to the great poverty in lime and phosphoric acid, turnips can seldom be grown on such soils to advantage until these two substances are added, and indeed in the case of newly reclaimed ground, a dose of lime is almost always required before crops of any kind will thrive well.

LIQUID MANURE.

It would not be stretching truth too far (and we see pretty often at the present day some toughish straining at it) to say that the laws which control and regulate the application of liquid manures are less understood, simply because they are less studied, than are the other and wise rules which arrange, direct, and govern the operations in both farming and gardening. Ask any ordinary rule of thumb farmer or gardener when and how he would apply liquid manure, and twenty to one he would reply, "Oh! put it on any time when it is ready, and you've nothing else to do; but it'll be all right." Ah! but my unthinking friend, this will not do; it will not be all right; and those off-hand, hit-or-miss, happy-go-lucky conclusions will fail you, simply because they cannot stand the test of quiet, searching inquiry. Now a day the world is full of people who will not be satisfied with such loose, inconsistent baseless reasonings, they insist on have a sound, positive, irrefragable "Why" for every one of their persistent "Wherefore?" "How do you do this?" "Why do you do this?" "When do you do this?" and "What do you do it for?"

Let me in this short paper see what I can do to throw a little light (it may be a very little) on the question of applying liquid manure; and possibly I may satisfy in some slight degree the questions of many of your correspondents. (I quietly infer, you see, that you have queries of this description.) I will endeavor, at the beginning, to clear the ground, so that we may walk along without stumbling. First, then, what is liquid manure? It is water holding in solution all the chemical constituents and active agents of manure. Being in this state, its action on the crop to which it is applied is immediate; and successful results are attained with great celerity if the liquid has been judiciously applied.

The laws which regulate liquid manure growing must be considered; and though these laws are elastic in their interpretation, yet they are still infallible and inflexible in their order, therefore, that the fullest effects may be derived from its application, and that without injury to the plants to which it is applied, it is absolutely indispensable 1st. That it be weak and frequently given; 2d. that it should be clear; and 3rd. that it should only be administered when plants are in full growth; for if strong, it is apt to produce great injury, because of the facility with which it is absorbed beyond the assimilating power of the plants. If muddy or thick, it carries with it in suspension a large quantity of very fine sedimentary matter, which fills up the interstices of the soil, choking it, or, deposited on the roots themselves, very greatly impedes the power of absorption, and if it is applied when plants are torpid, it either acts as in the case of being over-strung, or it actually corrodes the tissues. It must always be born in mind that liquid manure being an agent ready for immediate use, its main value depends and lies in that peculiar quality; therefore its effects is to produce exuberant growth; and that it will continue to do as long (and no longer) as the temperature and light required for its action are sufficient. These then are the true and inviolable laws which regulate this most important gardening operations; if these are well studied no mistake can be made. The leading truths which we deduce from these principles are, that it must be applied weak and often, and that it must be given according to the nature of that plant and the object aimed at. Let me explain. The greatest danger in applying liquid manure is on the side of strength

to use liquid manure very weak is simply to imitate Nature; and a safer guide the most obdurate sceptic could not desire. The carbonate of ammonia carried down to plants by rain is said to be, under ordinary circumstances about one grain of ammonia to one pound of water. This looks so infinitesimally small a dose, that many would be disposed to jeer at it. And I do not say that it is the only safe quantity; I have given and constantly do give strong doses; but as a general natural law it has its due weight, and ought to be a guide to us somewhat in our artificial imitation of Nature's laws. Let us now consider for a moment why and for what object liquid manures is given, and the special results which are variously striven for when it is decided upon to administer it. If, for example, wood and leaves are the aim of the cultivator, then liquid manure may be used from the time the buds burst until it is necessary that the ripening process be completed. In the case of flowers, it must be borne in mind that the more leaves a plant forms the fewer blossoms it will throw that season. The application of liquid manure is therefore unfavorable to the production of flowers. The true period of applying it with the purpose of perpetuating the growth and the heightening the beauty of flowers is most unquestionably when their buds are large enough to show that the elementary system is complete, and therefore beyond the reach of derangement; when the flower bed is completely formed and just about to swell more fully. Now, with fruit it is otherwise, as the best period of applying it to enlarge the improved fruit is after the flower has died off and the fruit is beginning to swell. We gain nothing by trying to enlarge the flower of the fruit-tree. The proper time is when the fruit is sufficiently strong, and has a power of action capable of opposing that of the leaves; from this time, and as long as the fruit is growing, liquid manure should be freely used.—*Farmers (Engl.)*

THE GRASSHOPPER PLAGUE.

From Minnesota, July 8.

"The grasshoppers have a very depraved appetite, preferring highly-seasoned food to mild diet. Tobacco leaves, onions, sage, peppers, tansy, and wormwood are destroyed by the scouting parties, while the main army sweeps on, blighting in patches every green thing. They lie in wait around the corn-field, lurching off the tender prairie grass, while the fearful farmer plants hill after hill. He cannot delay, for his faith in God seems to be at stake, and he dare not regard the clouds, even though they are clouds of grasshoppers. Then we have 'first the tender blade and then' the hopper and then the porkers must be let out of their pens, for it is root pork or periah (slightly altered from the original).

"There may be a few potatoes saved. It is not too late yet for buckwheat and turnips, but it soon will be, and they are eating as ravenously as ever. 'Our green currants are just a bubbling on the stems' said a little four year-old. Two days after the currant bushes looked like hazel bushes after a fire has run through them—mere stubs. One gentleman thought to save his young orchard by brushing off the swarms and painting a ring of tar around the tree body. I suspect a horticulturalist would tell him that his remedy is worse than the disease. Another rode ten miles to Braz over his thirty-five acres of corn, five inches high. When he reached home again two thirds of his corn had been eaten, and the rest of it disappeared next day. But this is not all. It signifies also that nearly 10,000 people in this once fertile district have nothing to eat and but little to wear. Hundreds are drifting away with their stock to a country where strong, willing hands find work; others getting away with nothing, begging for something to eat when they become too faint to toil on any longer. Many cannot leave who sacrificed everything to get through last winter, and have nothing to do but wait. What they are waiting for the Lord only knows. In His great mercy may it not be death from starvation.

A correspondent of the *Detroit Tribune* says:—"A deep gloom pervades the entire region in view of the utter ruin of thousands of farmers. It is only by seeing with your own eyes that you can get an adequate impression of the utter ruin of thousands of families. If the annihilating breath of the destroying angel had swept over these fair fields the destruction would not have been more complete. The wolf of starvation is even now looking in at the door, and many must perish without foreign aid."

A later report says:—"There seems to be but little new concerning the grasshoppers in Minnesota. News from Omaha is that reports from various portions of Nebraska are very discouraging. In Dawson country there will

not be enough corn raised for seed. The corn, bean and potato crops of the Pawnee Indians are totally destroyed. Without additional aid from the government they cannot but suffer most severely. The heavy rains that have lately prevailed over a large portion of Illinois have put a quietus on the chinch bugs, but there are some northern counties in which their work of destruction goes on unmolested. The cotton worm is reported at work in South Carolina to such an extent as to cause great alarm among planters.

And we are further told:—"The Iowa grasshopper has been checked in its career of devastation, not much, however, to the farmers' joy, for its successor is a red-haired bug an inch long, and with an appetite marvellous for its keenness.

GREEN MANURING.

Manuring by plowing down green crops, though among the oldest methods of fertilizing the soil continues among the most prominent topics in agricultural discussions, the difference of opinion as to its value evidently, as so many of our differences do, depending on circumstances that are overlooked by those who take part in the discussion. On the one hand it is declared that the plowing down of green crops is of no more good than the use of so much "acidulated water," while we see statements from the other side showing that the very best results have followed from the practise. So far as we can judge, green manuring is not successful in light sandy soils. In the south the cow-pea is used for the purpose, sown early in the summer and ploughed down in the fall. In the middle States clover is used, and further north rye. We have recently seen some statements that it has paid handsomely in the New England States to plow down in the spring a crop of rye, though there was a certainty that it would in a few weeks return \$50 per acre, in order that a crop of corn or nutabagas might follow.

This is no mere opinion. The party who practices this has been doing it for years, and finds so much profit from it that he continues the practice. Of course it goes hard at times to sacrifice a whole crop for a season wholly to fertilizing seeds, and it is this which keeps so many from practising it; but if only good figures are kept, it will often be found that the cost of manuring an acre or more, popular methods often extends the product of many of the most paying crops.

We have been led to these remarks just now, in consequence of the statement of one of the most successful Chester county farmers, who has a long tract of land under culture, but whose system includes very little livestock. When he commenced on this plan he had to purchase a considerable amount of manure every year; but since he has adopted the green manuring system, he has not purchased any, and he regards his farm as the best now about. He uses clover, and though his land is by no means heavy, it is not the light sandy soil generally supposed to be alone adapted to this system.

It seems to us that much more light might be thrown on this method of farming than has so far been afforded us. There are many plants which might be tried that would be better than anything so far named. In Europe lupins are very popular, and some efforts were made to introduce them here, we believe, some years ago. Their advantage are that they will make a good herbage on soil so poor that nothing else will grow. Then it would be an advantage to grow things which will make a good stool so that they could be ploughed down in time for certain crops, and not take long doing it. Rye may do pretty well for late spring crops, but would not do for those which had to go in early. It would not be grown sufficient for the purpose. It is likely that for this purpose buckwheat would be an excellent article. Soon after the early summer crops were off, it would grow enough to be ploughed down before winter, so as to be ready for the early spring. But the whole subject will bear a reviewing by practical men. Thus far clover is generally preferred for plowing down.—*Germanstown Telegraph.*

TREATMENT OF HAY.

"In expanding our little bay of hay—twelve-foot cube, or thereabouts I find each horse-load reminds me by its peculiar herbage, of the part of the meadow it came from, and the circumstances of its gathering in the regular inverted sequence of the hay harvest. The loads that were perfectly cured gave an account of themselves in a more aromatic sweetness. Those that were stored with a risky ex-

cess of moisture, tell the tale in volumes of fine dusty dust especially in the middle of the mow. The heat there was undoubtedly near the scalding point; the hay shows a dull, brownish green tint, and has become very dry and brittle. The sugary gums and dried juices belonging to hay in its best condition and tending to preserve the weight and strength of its fibre, seems to have been quite consumed in the interior parts of some of the loads. So that the young ones in one stormy day, in a jumping frolic, may reduce a whole foddering to the lightest chaff. The outside is in better condition, showing that, if I had taken the better precaution to provide one or several small air-holes from the bottom upward, as by pulling up small pieces of joist while the hay was being filled in, this waste of the rich and more appetizing portions of the fodder might have been prevented.

"A partial remedy in the use of such hay is to sprinkle each foddering with water several hours before it is wanted—a pail of water say, for ten or twelve animals. If the hay is fine, whatever provender is fed may be mingled with the hay, layer by layer—adding more water from the nose of the waterpot.

DEEPER CULTIVATION.

"The more I prove practically after thirty years' trial, and read or reflect theoretically, the more I become convinced that those that depreciate a deeper disturbance of the soil are doing a great agricultural mischief, preventing improvement and profit. Liebig, who knew more of the practice of agriculture than any other man then living, and who, for the first time, laid open the secret of nature's agricultural laws in relation to the soil, the plant, and the food of the plant, gives us in his grand work, *The Natural Laws of Husbandry*, unmistakable reasons for disturbing and aerating the undersoil. P. 9. "The root fibrils will always extend in that direction in which they encounter the least resistance. Of the cereals, wheat, with a comparatively feeble ramification of roots in the upper layers of the soil, still forms the strongest roots, which often penetrate several feet down into the subsoil. On the length of roots few observations have been made. In some cases it has been found that lucerne will grow roots 30 feet, rape about five feet, clover above six feet, lupine about 7 feet in length." "A proper knowledge of the radication of plants is the groundwork of agriculture... therefore, to secure a favorable result to his labors, he should prepare the ground in a proper manner for the development of the roots." In the second half of the period of development the roots of the turnip plant having penetrated through the arable surface deep into the subsoil, absorb more potash than in their preceding stage. If we suppose that the absorbing sponges of the root reach the stratum of soil poorer in potash than the upper layer, or not sufficiently rich in that material to yield a daily supply commensurate with the requirements of the plants, at first, indeed, the plant may appear to grow luxuriantly; yet the prospect of an abundant crop will be small, if the supply of the raw material is constantly decreasing, instead of enlarging with the increased size of organs. The vigor with which cereal plants send forth their stalks and side shoots correspond to the development of the root. Schubert found as many as 11 side-shoots in rye plants, with roots 3 to 4 feet long; in others, where the roots measured 1 1/2 to 2 1/2 feet, he found only one or two; and in some, where the roots were but 1 1/2 feet, no side shoots at all.—*Ec.*

We learn from a Western newspaper that of four millions of trees planted along the line of a certain railway company, less than three per cent. have failed, and the rest are doing well. This is good news from a prairie country, and goes far towards solving the problem of tree-planting on the open, wild and endless reaches of prairie land in the West.

—Winnipeg Farmers are jubilant. Not for some years has the prospect of a good crop been better. The breadth of land sown has also been very large, especially in the western portion of the Province. Everything betokens a magnificent harvest. In some sections, north and west, though the grasshoppers and the farmers having sold themselves short of seed, the quantity of land placed under cultivation has been limited; but these cases are the exception. A very much larger breadth of land than usual has been sown this spring.

**Paris.**

Perhaps of all the sights we have seen, the view of this city has surprised us more than any other. There is a very marked difference in its appearance to any European or American city we have seen — everything is so much cleaner, neater and more pleasing in outward appearance. Even the roads and alleys are washed with water and revolving scrubbing brushes every morning. The houses are painted to a far greater extent than any we have ever seen. Whole sides and fronts are painted, and, in many instances, even gilded. Flowers, ferns and climbers are to be seen on house-fronts in places of public resort and places of business, giving a most pleasing effect. The buildings of Le Louvre, Le Place du Concorde, the Tuilleries, Palace Royal and Hotel du Ville, are all adjacent. The great extent of massive and handsome buildings surpasses anything of the kind in England. The great display of handsome statuary on these buildings, in the interior and about the grounds, is quite astonishing, the cost of which must have been immense. We next visited the Royal Gardens, where fountains and jets of water are seen playing in various directions. Here, handsome avenues of trees, beautiful flower-beds and vases are seen, bordered by the green sod. The walks are all of flagstone. Statuary in various forms are here; and in the Champ Elysses, which adjoins the Garden, bands of music are frequently playing in the evening for the public. On either side are places of amusement and resort, like Chinese houses, decorated with flags and fantastic lanterns. Beyond this the ground gradually rises to a considerable elevation, on the top of which is erected the Arc de Triomphe, or the Triumphal Arch. This is a very strong and substantial structure, 150 feet high, the top being 27 by 56 paces. On the summit of this very handsome arch, we met some tourists

from America, England and other places. Some of them had been to the principal places in England, the Continent, China, India and all parts of the world. We were so much impressed with the grandeur of this spot that we spoke to several of them, and all concurred with us in our opinion that this is the grandest and finest arch in the world, and that the views from it embrace more beauty, grandeur and wealth combined than any other in the world. To the front may be seen the long, wide road, about 2½ miles in length, passing through the most beautiful gardens and ornamental grounds before described. The width of these grounds we presume, must be about one quarter of a mile. This road is near the centre of Paris. On either side may be seen the tops of the large public buildings and a general view of the city. There are 16 boulevards or roads centering towards the Arch of Tri-

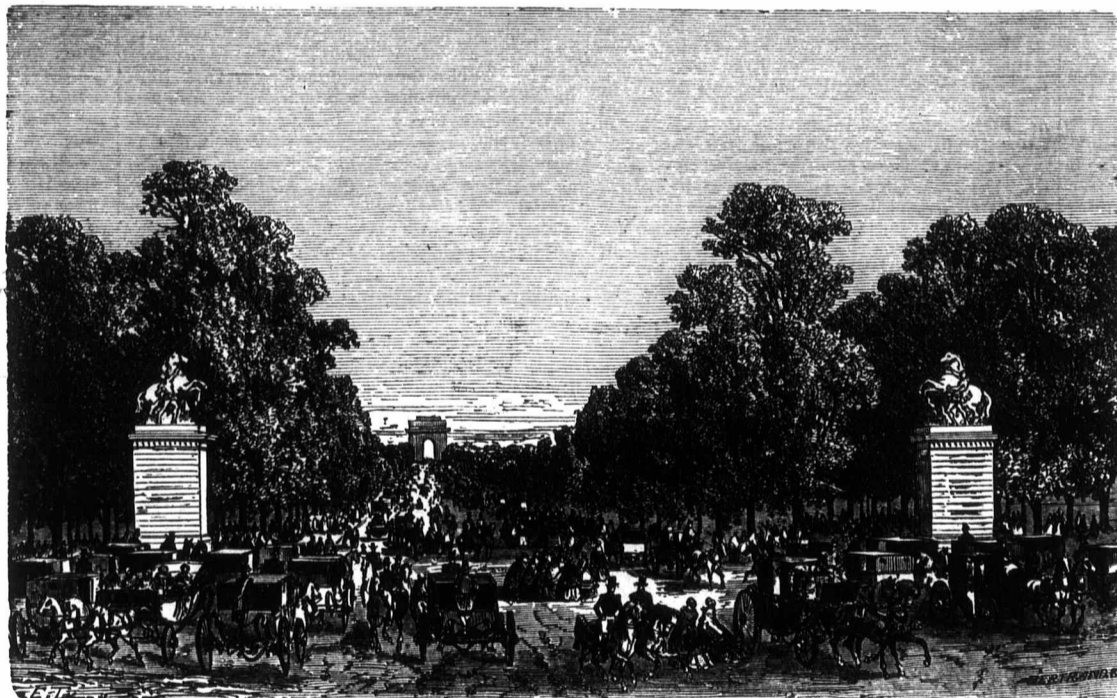
umph. Many of them are broad, having wide and neatly kept grass borders between the main roads and the side-walks. The walks have rows of trees planted near them, along with beds filled with a rich profusion of flowers. There are no fences to guard these flowers from anything passing along the walks or main road. These streets give the city great beauty; so many of them centering at this point, add beauty to the commanding view, which extends many miles in each direction. No marks of the destruction

of the late war are noticed, except at some of the public buildings, which are being repaired. There appears to be a strong warlike feeling prevailing among the inhabitants. They do not feel conquered by Prussia. They consider that an undue advantage had been taken by Prussia, and that ere long they will be prepared to make that country suffer for her acts, and make them repay the sum of money that France has paid, with heavy interest.

climate is better than in England. In Canada and England, the lady's house is her home, and she loves her home. In France, the home appears to be out in the air. They appear happy and cheerful, are very fond of show, and know how to make the most of everything. The shop windows are tastily decorated with green leaves and ornaments, and everything has a cleanly and tidy appearance. In some of the shop windows we noticed



ARC DE TRIOMPHE.



ROYAL GARDENS.

The great beauty, neatness and display, combined with numerous pleasure resorts, causes us to call this city the ladies' city. The ladies appear to live out of doors. In the daytime they take their work and children, if they have any, to some of the public resorts, and sit there or promenade; and in the evenings they go to the gardens or walks, or sit in the groves in the city. The gentlemen, also, spend the major portion of their time out of doors. Even the cafes or drinking establishments are open without doors or windows. The

jewelry, hats, &c., marked in large letters "London." The same goods in London would be marked "From Paris." This shows the desire of the public to obtain goods from a distance.

The winter in Nevada has been fearful. — Many grazers have lost all the cattle they possessed, and nearly all have lost a large per centage of their stock. In Honey Lake Valley hay sold for \$60 per ton, and at one time for \$130. Cattle are still dying there, and a person while riding through the valley is hardly ever out of sight of carcasses.

**The Voracity of Insect Life.**

Some interesting information relating to the ravages of insects was given, says the London Times, by C. O. Groom Napier to the House of Commons committee, of last session, on the protection of wild birds. In 1872 the caterpillars in the brown tail moth were so numerous as to defoliate the trees of a very large part of the south of England. The alarm was so great that public prayers were offered in the churches that the calamity might be stayed. The poor were paid one shilling per bushel for collecting caterpillars' webs, to be burned under the inspection of the overseer of the parish; and four score bushels were collected daily in some parishes.

The brown tail moth is a beautiful little white insect, about an inch in expanse of wings. Mr. Napier noticed that in 1853 it defoliated about twenty feet of a hedge near Parkstone Poole, and in 1855 the caterpillars riddled and deprived of their leaves two plum trees in his garden at Lewes, one of which died. The caterpillar of the gamma moth is one of the most injurious to garden plants. It principally feeds at night, and concealing itself by day, is unperceived. The gamma moth overran France about a century ago, and devoured a very large proportion of the crops, but fortunately, the corn was not attacked. The antler moth is sometimes extremely destructive to grass crops. Mr. Napier once saw millions of these on the Wrekin, and in the following summer the grass of the mountain was in a miserable state. The lackey moth is very destructive to filbert plantations. The buff-tip, the cabbage moth, and small ermines, are very destructive to the leaves of fruit trees and garden shrubs.

But, on the other hand, the benefits derived from the labor of some insects should not be overlooked; some species feed only on noxious weeds, and others prey on still more noxious insects. One of the

greatest friends of the agriculturist is the family of ichneumon flies which lay their eggs in the bodies of living caterpillars, in which they are hatched, thus destroying them; although the caterpillar, after being "ichneumonated," has still a voracious appetite.

The caterpillars which feed on the cabbage, eat twice their weight in a day; the larvæ of some of the flesh flies eat a much larger proportion than this. The productive powers of insects vary very much. Some lay only two eggs; others, such as the white ant, 40,000,000, laying them at the rate of sixty per minute. The Queen of the hive bee is capable of laying 59,000 in a season; the female wasp, 30,000. The majority of insects, however, lay but about 100; in general, the larger the insect the fewer eggs it lays. Most insects have two generations in a year; some have twenty;

others take seven years from the time the eggs are laid until their death, in a perfect state. But probably not above five per cent. of the eggs laid become perfect insects.

Of this kind, the daddy-long-legs is one of the most destructive, especially in France. It feeds on the roots of grass, and Mr. Napier, in 1859, noticed meadows in La Manche devastated by it. The starling is a bird most useful in destroying these larvæ, and those of the horse and cattle flies. The orthopterous in-

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BARLEY E HORSES.—A co respondent the "Journal the Farm" say Barley has, sin the failure the oat cro gained in rep tation as a go and substanti food for th horse, and ma farmers are no growing it fo confessed that gree, the prin It largely abo gar, gum and nutritive matt pounds to the pounds of nut ley, in some p horses instea In this conn horsemen to barley are wo oats.

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sects, of which the locust, grasshopper and cockchafer are examples, are very destructive. The numerous species of grasshoppers lessen the amount of our grass crops. Locusts are seldom found in England now in sufficient numbers to do any damage, but they have done considerable damage here in former generations. Their greatest enemies are the starling and the rose colored pastor, which follow them in flocks and decapitate them by hundreds. The beetles are immensely numerous as regards species. In 1574, the cockchafers gathered in such numbers on the banks of the Severn as to prevent the working of the water mills.

On another occasion, in Galway, they formed a black cloud that darkened the sky for the distance of a league, and destroyed the vegetation so completely that summer seemed turned into winter. They made a noise resembling the sawing of wood. The people, threatened with famine, were obliged to devour them. In 1904, they were alarmingly numerous in Switzerland. The female lays about 30 eggs, and in six weeks they are hatched. They live from three to four years in a larvæ state. The first year they do not do a great amount of damage, but in the second year they attack the roots of all plants within their reach. They often ruin the crops of corn, lucerne, straw-berries and various plants on which man depends for food. Our insectivorous birds are diligent in destroying the larvæ of insects but they will not do all that is required; hand labor is also needed.

**BARLEY FOR HORSES.**—A correspondent of the "Journal of the Farm" says: Barley has, since the failure of the oat crop, gained in reputation as a good and substantial food for the horse, and many farmers are now growing it for this purpose. It must be confessed that barley contains, in a high degree, the principles for forming fat and flesh. It largely abounds in albumen, gluten, sugar, gum and phosphate of lime, or, in other words, barley contains sixty-five per cent. of nutritive matter, while oats, weighing forty pounds to the bushel, contain only about 24 pounds of nutritive material. Inferior barley, in some parts of this country, is fed to horses instead of oats, with the best effects. In this connection, it would be well for horsemen to remember that two parts of barley are worth more than three of good oats.

**FENCES.**

The best and cheapest kind of fencing is the great desideratum of which the farmer is in quest from time immemorial. Beyond a doubt, wherever a permanent line of division or enclosure can be drawn, live hedge of hawthorn, buck thorn, or osage orange, is superior to any other, when it has been fairly established. Nothing can exceed the beauty of the English hawthorn in spring and autumn. In the months of May and June the hedges are covered with the white

blossoms, which load the air with perfume, and in the autumn they are red with the ripe berries which afford abundant food to the little birds, and are, in fact, eaten by children, though they are rather mealy and insipid. In our country, where fields are often divided, and timber has heretofore been abundant, less attention has been paid to the mode of enclosing grounds, than in the older countries of Europe, but we shall have to come to it before long. The forests are disappearing, sadly to the discredit of our forecast, for we are already suffering in some of the old settlements even in this country, for the want of wood, not so much as fuel, for coal will supply a more economical heat, but suffering on account of the change in the climate, superinduced by the destruction of the forests. Why the mountains should be denuded for the sake of the arable land, which their sides afford, we cannot understand, in view of the injurious effects upon the health of the surrounding country. The deprivation of the immense amount of carbonic acid which is supplied by the forest trees, finds a poor compensation in the additional surface of land offered to the plough.

boo huts when he is in a hurry. Besides boys creep through them into your corn field, or melon patch, or sit on the topmost strand and make swings of galvanized wire, and play the mischief generally with the whole contrivance. When we come to the more durable kinds of iron fences made out of bars, we are still confounded with the difficulty of expense. The live hedge is the cheapest. It requires a few years to protect it, but once established, and you have a fence that no wind can blow down, and no thief break through.

—The stock of horses in Russia, it is said, would be insufficient for the wants of the farmers of the empire in the event of the mobilization of the army. A committee of the general army staff reports that 350,000 horses would be wanted in the event of a war, and that not more than 200,000 could be spared from the agricultural pursuits for ordinary road and street traffic, and for employment in the army. Russia requires more horses for agricultural purposes than any other European country, and yet has fewer horses in proportion to the population than any other.

**PRODUCTION AS AN ART.**

We are firmly of the opinion that the farmer who will be successful in the future, must crowd more skill, more art, more brains into his productive operations. Instances are continually coming to notice in which producers greatly increase their receipts by devising and employing what may be called the high arts of production. Of course the art and ingenuity, to produce lasting results, must rest upon an excellent quality in the product. Using this for a foundation, it is difficult to place limits beyond which artistic arrangement and intelligent presentation of the material can not advance the receipts. Butter-makers can greatly increase their profit by action of this kind. Every city is now supplied, to a greater or less extent, by the manufacturers of these skillful, artistic operations. Many dairymen in the vicinity of Boston, New York and Philadelphia, so adapt their butter to the wants of the people, and so shape and adorn it, to please the taste of the consumers, that they receive twice or thrice as much per pound as their neighbors, who pack and sell the product in the usual way. Of course, these caterers serve a limited demand, but the demand is

elastic, and, we believe, will expand, within certain limits, if more consumers are brought under the influence of the artistic product. We have lately learned of a dairyman who is serving the Utica market in this way, and whose method, we doubt not, will prove interesting to our readers.

Mr. T. A. Cole, a dairyman living near Solville in Madison Co., has been for a number of years breeding as carefully as possible to develop the milking qualities of his herd. He has grade Holderness cattle, and those who have seen them, praise them and the excellent farm establishment of their owner. We propose to speak of these things from inspection in the future. At present we wish merely to state what Mr. Cole has done in the Utica market, and the way he has done it. He began three years ago, serving



**Monkeyshine.**

What destruction the coons sometimes make among our cornfields, many of our farmers know to their cost; and no doubt many of the young folks have had coon-hunting in abundance. But here are some queer fellows, who, though they are not coons, will make quite as much havoc in the cornfield. The scene is laid in South America, and the animals are apes or monkeys. Very likely if you met one of these fellows at night, you would be just as likely to run as he. Just look at the big fellow that is standing up, probably the father of the family. He has a tooth for corn. While all the others are fooling around, he is busy eating. And there's a little one behind him means business too. Wouldn't you like to see some one popping round the corner after them. Then they would set up such a chattering and yelling that you would think Pandemonium had broken loose.

The *Garden* relates that cuttings have been taken from England to Victoria, and worked with success nine months after they were separated from the parent plant.

one of the leading grocers with a fine article of butter, made in one pound balls, and during the first year received thirty cents a pound, the second year, thirty-five cents, and now he is receiving forty cents a pound for all delivered. Mr. Cole's idea was that if sweet, fresh butter has a claim in the country, it would have a claim in the city as well, and that when city people learned that they could procure the delight of the farm, would be willing to pay more for it. This the result has proved. He made arrangements with the grocer to ship him the whole make of his dairy every week, and thus he has continued since, until the weekly report of Mr. Cole's butter has become a feature of his trade. The butter reaches the city in a large board box, nicely painted and securely hinged and fastened. The size of the box is about three feet and a half long by about two feet wide and high. The box contains three tin boxes inside. The centre box is filled with ice, which preserves the butter during the transit by railroad to the city. On each side of the ice-box are tin boxes. Each contains four tin shelves, and upon each shelf rest eight one-pound balls of butter. Each ball is wrapped by

itself in a square of white muslin. It is in this fresh, sweet and inviting form that the butter comes to the consumer. All about it is fragrant and suggestive of the country luxury which few people know, but may talk about.

Mr. Cole has found that his production of this kind of butter has been very profitable. The margin above the market price for fine butter as is usually placed before the consumer, which he has obtained, returns him a large percentage for his care and labor. The secret of the matter lies in the fact that he has studied and practised production as a fine art. He has carried into the working of his daily avocation that ingenuity and intelligence which mechanics are always employing when they strive to tickle the popular fancy by some tasteful presentation of their wares. There is no reason why dairymen and producers generally should not be as wise in their generation as the shopkeepers are. Indeed, there is every reason why they should be, and much of the success of the future will be obtained in this way. Improve your product, and present it in such a way that consumers will be drawn willingly to it. There is a heap of wisdom in these words, and a heap of profit in acting upon the truth which they contain.



## STOCK & DAIRY

### FEEDING VALUE OF RYE.

The use of growing rye for feeding sheep, cows and calves, may be very advantageously availed of when it is necessary. It would be well to give crop full chance for fall and winter growth, but towards spring when the ground is dry enough, it may be moderately grazed until the 10th or 15th of April. The manure of the stock, if fed to any extent with grain at the same time, would amply atone for any diminution of the mass of green crop. The value of an early supply of green food for stock is not generally appreciated except by professional grazers. They well know that a few weeks of green feeding in early spring tells largely on the profits of a whole year's grazing. In the rising of spring lambs especially, the value of such pasturage to give to the ewes a full flow of milk will be apparent.

EXTRACT FROM PROFESSOR BELL'S, M. A.,  
ANNUAL ADDRESS.

Milk is the raw material of cheese, but the cow is the source of milk, and no treatise on cheese-making would be complete without a notice of the animal and its relation to the subject. As a general rule, the smaller breeds are considered to be the most profitable to the dairyman, as they give a much better return in proportion to the quantity of food they consume than the larger breeds do. In England the Alderneys are very highly esteemed, and by many eminent agriculturists are placed first on the list of dairy breeds, though the Ayrshires have about an equal number of advocates, and, as far as I can judge, are perhaps, upon the whole, the more profitable breed to keep, as their constitution is stronger and more hardy, and they will thrive on coarse fare, and require less attention than the Alderneys; and though the quantity of milk they yield is not so great in proportion to the weight of the animal, yet the absolute quantity is as great, or greater, and the richness is about equal. Add to this that the Ayrshire will generally last through a greater number of seasons, and when no longer wanted for the dairy they fatten much more rapidly, and attain a much greater weight than the others. One variety of the Ayrshires—the polled or Galloway breed, as it is sometimes called—I can testify from my own experience cannot be surpassed in the richness of the milk, both in cheese and butter, though the quantity given is seldom so large as in some of the other breeds.

Many capital dairy cows are to be met with among the common and grade cattle of this country, and some prominent dairymen advocate the crossing of the common cow with the short-horn, and the resulting breed again with the full-blooded Ayrshire as affording the preferable breed for dairy purposes; but until the raising of cattle for the dairy becomes an established branch of our farming economy, and some experience is gained in the matter, it is perhaps premature to attempt to lay down rules or settled principles in the matter of the special productions of the dairy stock.

The feeding of the animal is the next point of importance. When we consider that the cow contributes nothing of her own to the contents of the milk pail—that her organism only selects, extracts and combines the substance that exist in the food which she consumes—we shall easily understand that it is the interest of the farmer to see that his cows are supplied with such fodder as contains a sufficient proportion of the substance which form the basis of cheese and butter. In the spring and early summer when the grass is strong and succulent, and the cattle can obtain all the nutriment they want by grazing, they require but little attention; but when the herbage becomes dry and scanty every judicious farmer will have in reserve a sufficient extent of green crop to carry his cows over the season of scarcity, and maintain them in good condition until the approach of winter compels him to house them in the barn. For this purpose a mixture of rye grass, red clover and oats, with vetches is especially valuable, as this combination of plants has in great abundance the elements of casein, gluten, albumen and oil, which are the chief substances the dairymen desire. Indian corn, too, planted rather thickly in rows, with vetches drilled in the intervals, and cut green, will also make capital fodder.

To keep up anything like an equal supply of milk from a number of cows, their pasture ground should be subdivided by fences that they may be confined in one section until they shall have eaten the grass well down while the other section is growing. It must be remembered that the cow, which has teeth only in the lower jaw, and thick cartilaginous, almost immovable lips, requires to have the grass long enough for her to twist her tongue round it, and so bring it within range of her teeth, which, by a peculiar side-long motion, rather shear than bite the stems and leaves. The horse, with his well-furnished jaws, and the sheep, with its small, fine muzzle, and both provided with muscular and movable lips, can graze much closer to the ground than the cow can; and the horse would maintain himself in good condition, and the sheep thrive and grow fat upon a pasture on which a cow would literally starve. All pastures ought to be provided with shade to protect the animals from the midday heat, and shelter to shield them from storms and cold. In many parts of England and Scotland every field is provided with an erection called a "hemmel," some seven or eight feet high, and large enough to contain the number of animals to which the field is usually stinted. It is composed of stakes driven firmly into the ground, interwoven at the sides with branches, and roofed with straw or litter. In the "hemmels" the cattle or other stock find shade or shelter as they may require. In this country, where wood of any required dimensions is so easily obtainable, and where the branches of the pine and cedar afford such suitable material for the sides and roof, these "hemmels" could be erected at a very trifling expense, and if placed upon the line of the dividing fences, and so constructed as to be easily made accessible from either side, as may be required, they would be found very advantageous in our changeable climate.

Above all, cattle should have access to pure, good water, and should never be allowed to drink from stagnant pools or ponds into which the drainage of houses, barns, stables or manure heaps finds its way. If there is one physiological fact connected with the propagation of disease better established than another, it is that impure water is the most active of all agents in disseminating infection, more particularly that of typhoid fever and that fearful scourge—Asiatic cholera—among the human race. Every case in which typhoid fever has appeared in England as an epidemic, has been traced most unmistakably to the use of water contaminated with sewage matter.

Now, the same causes which operate so disastrously upon man, act in a similar manner upon his domesticated animals; for their bodies are constructed upon the same fundamental plan, and their functions are determined by the same general laws which regulate our own.

With respect to winter feeding, as the operations of the factories are suspended during that season, I have only to remark, independent of the profit to be derived from the home manufacture of their milk, that cows which are well fed and comfortably housed during the cold weather of winter,

are much better prepared to yield a good profit during the ensuing season than those which are scantily fed and insufficiently protected from the vicissitudes of the season. In my mother's little establishment her cows were always fed in winter upon the best quality of old meadow hay, along with which turnips were given; and many an hour I have spent, while yet a boy, with cold fingers and feet, sitting on the end of a board laid across a washtub, armed with a huge carving-knife, cutting the turnips into thin slices to prevent the danger of choking, for agricultural machines were neither so common nor so cheap 50 years ago as they are at the present day.

In addition to this fare, each cow had a mash of brewer's grains, mixed with a portion of wheat bran or shorts, and about a pint of crushed linseed cake or pea meal—the whole scalded with boiling water twice a day at milking time. And yet these cows craved for greater variety in their diet. I have known them to refuse their hay, and eat up every particle of their bed straw their chains would allow them to reach. Cows that are treated in this way are not only prepared to stand the transition from the dry food of winter to the succulent grass of spring without derangement, but if in calf are much less liable to abortion, which the change of food is apt to produce in cows that have been less kindly and less carefully treated. Very few cases of the kind ever occurred among my mother's cows. As brewers' grains can only be had in very few cases, I may mention that chaff or fodder, cut fine, and mixed and scalded in the same manner, makes a very good substitute.

Before leaving this part of my subject, I must put in a plea for gentleness in the treatment of cattle generally, and of milch cows in particular. As there is no animal which will make a better return for good treatment in respect of food and lodging, so there are none more sensitive to kindness, or the contrary, in the manner of those under whose care she is placed; and while she will resist and resent ill-usage very strongly, I can testify from my own experience that she will be gentle, obedient and even affectionate towards those who treat her with consistent and uniform kindness.

The flavor of cheese is a very important item in the determination of its market value, and may be affected by many other circumstances besides the management of the milk in the dairy or the factory. Of these I shall only notice the food of the cow. I have known instances where the whole milk of a dairy became totally unfit for several days for the manufacture of cheese or butter, because some of the cows had got access to beds of the wild garlic or wild onion; and everyone knows the peculiar unpleasant taste which turnips impart to the milk and butter of the cows to which they are fed, unless the precaution is observed of putting a small piece of saltpetre into the pail into which they are milked. On the other hand, the delicate flavor of the celebrated Parmesan cheese is said to be owing to an admixture of the milk of goats which feed upon the rocky ridges and slopes of the Apennines, on which they browse. In the north of England and in Scotland a very rich but strong-tasted cheese is made by mixing the milk of the ewe with that of the cow.

There is another substance contained in milk which I have not noticed yet, as it does not appear to enter into the composition of cheese or butter in any appreciable quantity. This is albumen, the most familiar example of which is the white of an egg. It is nearly similar to casein in its chemical composition, but does not become solid under the same influences; it therefore passes off in the whey, from which it can be separated by raising the liquid to a scalding heat, when it coagulates and forms the famous curd, which, when strained out and eaten with cream and sugar, is accounted a great delicacy. The whey also carries off part of the butter and nearly all the milk sugar. The butter can be recovered by agitation, and, though not so good as that which is obtained by churning the whole milk or cream, is useful for shortening and other domestic uses. The milk-sugar can also be separated by evaporating the liquid that remains after the albumen and butter have been extracted, when it crystallizes out. If the whey is fed to hogs, they must be kept at some distance from the factory, so that the unsavory smell

of their ordure may not affect the milk, which is peculiarly susceptible of such influences.

It now remains for me to consider cheese in its economic relations. It is undoubtedly the cheapest article of diet we possess, affording a greater quantity of actual nutriment, for a given expenditure, than any other single food material. It contains, indeed, nearly all the substances that are required to support our bodies—nitrogen, to pair the constant waste of the tissues; carbon and hydrogen, to sustain the animal heat; lime and phosphoric acid, the constituents of bone; sulphur, to meet the demands of the scarf-skin, the hair and the nails; oxide of iron, to vivify the blood; phosphorus, the most active material stimulant of the brain and of the nervous system generally—that sensitive and delicate telegraph by which the impulses of volition are communicated to the organs of thought, of action, and of expression, through which the intellectual and spiritual part of our double nature sends forth its mysterious manifestations. It has, however, one defect, and one deficiency—it is deficient in starch, which is much required in the process of respiration; and it presents its nutritive matter in such a highly concentrated form that only a small quantity of it can be digested or assimilated at one time. It therefore requires to be supplemented, and, as it were, diluted with some farinaceous food, which shall at once supply the substance in which it is deficient, and so increase its bulk as to distend the stomach sufficiently to enable it to act effectually upon the mass. It is therefore generally eaten along with bread, and "bread and cheese" are as inseparably united in our speech and in our stomachs as roast beef and plum pudding, or pork and beans.

From its composition it will be aptly inferred that cheese is eminently fitted to sustain the muscular strength, and in this connection I may relate an anecdote communicated to me by a gentleman, long since deceased, who vouched for the circumstances having happened within his own knowledge:—

In the vicinity of the town of Bradford, in Yorkshire, there lived, some seventy years ago, a rather eccentric old gentleman, who farmed a small estate of 150 or 200 acres, which had belonged to his family from time immemorial, and which he cultivated chiefly as a dairy farm. He kept lying in his barnyard a large kidney-shaped boulder stone, and it was his custom, whenever he hired a new farm hand, to make the man try to lift this stone—a feat which very few were able to perform. At the end of the year's service he would make him try again, when, without exception, every one lifted it with ease. The old man would then explain to them that this increase of power arose from the fact that cheese had formed a large portion of their diet, and would conclude with this advice:—"If you want to be able for your work, eat plenty of cheese."

I have not touched upon the application of the co-operative principle to the manufacture of butter, but I have no doubt that in this way may be made a very superior article to that generally produced on private farms; and if ever from over competition or any other cause, the cheese market should decline so as to make the manufacture unremunerative, it will be well to know that we have the manufacture of butter to fall back upon, and that we need not kill off our cows or suffer our factories to go down for want of occupation. The English market can absorb a vast quantity of first-class butter, but it would be of no use to send an inferior article thither.

I have now, Mr. President, to express my earnest wish and sincere hope that the movement in behalf of dairy husbandry which has been so auspiciously begun and so successfully carried out so far, may go on and prosper, and that the manufacture of cheese on a large scale for the English market may form a permanent branch of our agricultural industry, and an enduring item in our country's prosperity. And I hold it to be by no means the least conclusive evidence of the great and growing importance of this branch of business to Canada, that our friends on the south of the great lakes acknowledge us as rivals, and begin to dread our competition in the markets of the world. Following the *Utica Herald's* report of the American Dairymen's Convention, held some time ago, I find that Mr. L. B. Arnold, in delivering

the annual address, made the following pregnant statements and admissions. After stating that he did not apprehend much danger from the opposition of English or German cheese-makers, he went on to say: "I anticipated that the shipping interest of the United States will meet with more formidable competition nearer home. I allude to our Canadian neighbors." He then informs us that in the year preceding the abrogation of the reciprocity treaty in March, 1866, Canada imported from the States about 1,500,000 pounds of cheese, at a cost, in round numbers, of \$200,000, adding that "the almost prohibitory tariff which was then laid upon that luxury compelled the Canadians to rely upon supplying themselves with their own make." He then traces the rapid progress of the cheese manufacture among us from 1866 to the present time, and estimates that during the year ending in June, 1873, our shipments will have taken the place of their exports to the extent of 20,000,000 pounds; and concludes this portion of his address in the following words: "Whether this estimate is too large or too small, the fact must be apparent that Canadian cheese must, before very long, seriously affect our trade in the English market."

EUROPEAN VARIETIES OF CHEESE MADE IN AMERICA.

The manufacture of Swiss and Limburger cheese is now quite extensively carried on in this country, and is said to be of excellent quality—quite equal to any imported. The Limburger variety, when in its prime condition, according to the German taste, requires to go into consumption at once, as it is liable to deteriorate if kept long after it is fully ripe. On this account there is considerable risk in its importation, and besides the cost is more than for the cheese made in America. Probably the largest quantity of Limburger cheese made in one locality is made in Northern New York—Jefferson county taking the lead. Some of these factories are very elaborate and expensive structures. They are modelled after European plans, though of course much larger than the German establishments.

There is quite a number of factories manufacturing Swiss cheese in New York, and a good article is produced. We do not know to what extent Limburger and Swiss cheese is manufactured in the West, but a considerable quantity is made in Wisconsin. In Greene county alone more than half a million pounds were produced during the year 1873—the milk of 1,880 cows being used for the purpose. For the present it is estimated that the milk of 2,310 cows will be employed in making Limburger cheese in the county of Greene. A number of factories in the vicinity of Oshkosh, Wis., are engaged also in the manufacture of Limburger and Swiss cheese. These varieties of cheese command a greater price than the ordinary style of American cheese, they being mostly retailed at from 23c. to 25c. per lb.

Where experienced and skilled German manufacturers are employed to take charge of the factories, the net returns to dairymen delivering milk at these factories are much better than at the ordinary factories for making American cheese. There are several other European varieties of cheese that could be made in this country with profit, and we hope to see some of our dairymen engage in the production.

There is a demand for Edam cheese in our large cities, especially in New York, and a considerable quantity of this variety we understand is imported from abroad. We ought to be able to make all the cheese needed in the country and we ought to make it of as fine flavor and quality as that produced abroad. It would be well if some of our factories should turn their attention to some of the varieties of European cheese for which there is a demand in this country, but which have not heretofore been produced by us.

SHADE AND PURE WATER FOR STOCK.

We have always thought it cruel to expose stock to the fierce mid day rays of our summer sun without shade trees. That stock of all kinds do suffer more or less from the direct rays of the sun is evident enough to all who have observed with what tenacity they cling to a shade in the middle of a hot day, retire to the shade and stand there during their nooning in preference to cropping grass in the sun.

Some farmers are in the habit of keeping their cows in the barn-yard all night, and until the sun is some distance above the horizon in the morning, without anything to eat, and then after cropping a hasty breakfast they will retire to the shade and remain there until within a few hours of milking time, when they go forth to feed a short time. Is it any wonder that cows shrink in their milk in hot weather, and that farm horses that run out fall away in flesh?

We have known some writers to deprecate shade trees in a pasture, because stock cling to

them so in hot weather, neglecting to eat all the grass necessary to their greatest usefulness, but it must have been a heartless disregard of the comfort of brutes that dictates such a proposition. An animal to thrive and to do his best must be comfortable and contented.

If stock in a pasture remain under the shade too much of the time to crop sufficient feed, why should it not be a good plan to give them a little cut grass or some other nourishing food?

It is undoubtedly the true policy in keeping such stock as employ their organs in manufacturing food for man, whether it be flesh or milk, to induce them to consume all the feed that their organs can digest without detriment to their health. If they are driven by the fervid rays of the sun to remain under shade too much of their time, in order that they should be fed under the shade, either by placing managers there and drawing them food, or by shutting them up in stables and feeding them. We throw out these suggestions for the consideration of the humane men as well as the economical, for we believe it is both inhumane and wasteful to compel stock to seek their food exposed to the heat of the mid-day sun.

The lack of an abundance of pure, cold water, easily accessible, is another cause of suffering to stock and loss to their owners. To many farmers rely upon stagnant swamp water for their stock during a greater part of the year. This is cruel and unnecessary in a country where veins of water can almost always be found by digging from thirty to a hundred feet. To be sure it costs something to dig wells and pump water for stock, but much less than the loss in letting them drink impure, stagnant water. However abundant and nutritious the pasture, stock cannot do well when suffering from thirst, and cows cannot make pure, wholesome milk from foul water. Impure water not only makes unhealthy milk, but it affects the health of the stock that drinks it; therefore provide pure, sweet water for your stock.—*Am. Rural Home.*

THE BUTTER PRODUCING REGIONS.

Normandy and Bretagne are the two butter-producing regions of France, and the exportations are almost wholly made to England. The former is famed for its Isigny butter, the latter for that called Prevalaye, and which is prepared within a circuit of twenty miles around the town of Rennes, though originally taking its name from a small farm. There is nothing peculiar in the race of black cattle of Bretagne; the cows are of a mixed breed and small, but their milk is peculiarly buttery. The forage is nutritious, and plentiful without being abundant; in summer it consists of clover, vetches and aftermath pasturage; in autumn the same, with cabbages, a bran mash being given to correct the flavor the cabbage imparts to the milk. In winter beet and oat straw, with bran, crushed furze and white carrots.

Dairies are commenced only to be known in Brittany. The milk is conserved in earthen vessels which are placed in the middle of the kitchen, protected according to the season. The milk when suitably soured is first skimmed, the cream placed in a churn, and as much of the milk added as is deemed desirable. The churn is in earthenware, with the ordinary dash, worked either by a pole as a lever from a beam of the roof with a stone at the other end, or with the hand directly. In winter a flat bottle of hot water is placed in the churn, in summer a cold one. Twelve quarts of milk yield one pound of butter, the preparation of which has this peculiarity, that in its manipulation no water is used, no washing takes place, which is said to preserve its delicate, aromatic and "nutty" flavor. But this mechanical kneading is very far from removing the milk and the particles of caseine, and wholesale buyers deduct ten per cent. from the weight in consequence, having to wash it before exporting it. Isigny butter, which is prepared by washing, keeps better, and has a superior flavor to that of Prevalaye after it has been treated with water. In Normandy the barrel churn is universally employed, and the butter is washed in the churn itself.

In other parts of Bretagne, the butter though not washed is salted immediately after being kneaded—never with the hands; from two to four ounces of salt per pound, according to the period of preservation required. After the earthen vessels have been well scalded and cooled, a few spoonfuls of the old and soured milk, forming a kind of leaven, are rubbed against the sides of the vessel; the fresh milk is poured in, when the "turning" quickly ensues, and the cream is found to rise more rapidly.

The butter is made up in one or two pounds, placed in little black earthen pots, covered with linen and corded, and so arrives in the Paris and London markets for immediate consumption. It is also formed into blocks in the shape and as large as a bee hive, or packed in shall wicker baskets a yard long. After cream has been poured into the churn along with some of the milk, the portion of the milk retained, after being cut in cross blocks by a

wooden knife, is with its vessels placed beside a slow fire; in a little time the whey is run off, and to the cooked cur is added the milk fresh from the churn after the butter has been removed; this with rye or buckwheat cakes forms the uniform dietary of the farm servants. It is women who milk the cows; in summer and winter for the first time, at three and five o'clock respectively; the second milking takes place at noon invariably.—*European Cor. Massachusetts Ploughman.*

IMPROVED STOCK.

When farmers in a new country commence to import thorough-bred stock, and to give their attention to improving the breed of their cattle, it may be accepted as a sure sign of agricultural prosperity. It is therefore satisfactory to find the farmers of this district are making great improvements in these matters, and that several importations of pure bred stock have been made. Some time since Mr. J. L. Read bought a thorough-bred Ayrshire bull, and the results promise to be in every way advantageous. The same enterprising gentleman has now purchased for \$10 a very fine pure-bred heifer calf, from Mr. Holden, of Sydney, and as the heifer is also an Ayrshire, a few years will bring this excellent breed of cattle into general appreciation.

The ordinary grade cattle of Canada are by no means inferior, and are admirably adapted to the early days of a new settlement. Being hardy, of a good size, raising large and heavy oxen, and furnishing a good proportion of beef. It is in their milking properties that they are deficient, and it must likewise be noted that they are large, indeed, gross feeders. The Ayrshire, on the other hand, are remarkable for their milking powers, and from long observation and experiment it has been ascertained that they give about 25 per cent. more milk from an equal amount of food than any other breed of cows.

This, therefore, is just the kind of stock that is required when a settlement has passed through its early stages, and when the trials and hardships of the backwoodsman have given place to the comparative ease and affluence of the well-to-do farmer. The milk of the Ayrshire is heavier than that of any other breed, excepting perhaps the Alderney, and is rich in albuminous matter.

As cheese factories become established, and towns spring into existence, the demand for cheese and butter increases, and dairy farms become more profitable than those of any other character. This is found to be the case in this neighborhood, and Mr. Read has done good service to the farming community by the introduction of the fine animals he now possesses. We wish him every success in his spirited enterprise.—*Bobcaygon Independent.*

DANGEROUS STOCK FEEDING.

I wonder how many cattle and horses and sheep are destroyed annually by mistakes in feeding? I know of many, even in this limited neighborhood, and the total must be alarming. Mr. So-and-so, wishing to get his horse "well up" for the show yard, gives him wheat meal, so one morning he is found dead. Another, Mr. ———, loses half a score of valuable fat bullocks and some horses from nearly the same cause. The food is too nitrogenous and glutinous.

The same remark applies in a degree to bean meal. Horses getting at a heap of wheat are almost sure to die. If beans and wheat were given in the same condition in which they grew—I mean the same proportion of straw, pod chaff—there would be no danger, for who ever saw a horse injured at harvest time by helping himself to wheat with its straw and chaff? Animals will seldom go wrong if they have plenty of chaff, pollard, etc., with their rich diet. Why are oats so safe for feeding compared with beans? Because they have a thick, chaffy jacket, not like the rich bean or dressed wheat. An old farmer, with a long or clear head, mixes his bean meal with linseed oil into balls. No fear of wind or blowing in such a case. Whenever I am short of green food in July and August when the beans are well podded, I pass them, stems and all, through the chaff cutter, and they make the best of food for all farm animals; afterwards moistened with hot water, become soft and most acceptable food. No bean straw should ever go under foot. See its analysis, second only to hay.

Italian rye grass forced to rapid growth by guano, with its excess of ammonia will kill our lambs, and even some of the older sheep; not so when manured abundantly with animal excrement. The same remark applies in a degree to ammonia forced roots. Depend upon it a mixture of straw chaff with mixture of food is a very profitable safe-guard. So many cattle are lost by flatulence (distention or blowing) that my stockman and I often talk over the matter, especially as we never lost one from that cause; and he is of opinion with myself that our freedom from these losses arises from a pulping of the roots and their admixture

with dry and fine cut hay and straw chaff, and with bean meal, bran, malt combs (culms), and cake.

The food thus lies compactly in the stomach but yet is free to receive the permeation of the gastric juices. It is easy to imagine that a mass of pulpy, adhesive, glutinous wheat or bean meal is by no means permeable. We know, by the old-fashioned use of the choke rope, that some animals are apt to bolt their food in masses. I am a firm believer that the mechanical or physical condition of fine cut straw in the stomach has much to do with digestion and health, as well as by chemical composition.

After thirty years of close observation and practice, both I and my men have come to a decided conviction that the turning out and roaming at large system is a dangerous and unprofitable practice, and that it pays better to bring the food to the cattle than the cattle to the food, and that the care of sheep close folding and removal of the fold (iron hurdles on wheels) every twelve hours is the true and most profitable practice. The waste of food and loss of stock by the roaming-at-large plan is something fearful; besides the animals do some progress so well.—*J. J. Mechi.*

NEW STOCK.

A fine specimen of pure bred stock, in the shape of an Ayrshire bull, twelve months old, has just been brought into this section by Mr. G. W. Playfair, of Bathurst, who intends this year to use him for the improvement of his own stock. The animal was bred in Scotland, though born in Canada, his mother being one of the prize cows at the Agricultural Show, in Montreal last year, by the "Conqueror," a celebrated bull belonging to Andrew Allen, the well-known stock farmer near Montreal. Mr. Playfair deserves credit for his enterprise in bringing these blood animals to this part of the country. He now wishes to dispose of his other bull "Prince Arthur," his object being to change the paternity of his stock at proper intervals.—*Ottawa Citizen.*

LICE ON CATTLE AND COLTS.

A correspondent from Neshwaakias hands the *Colonial Farmer* a simple method, long used in that locality, for killing lice on cattle.—Make a strong brine with common salt, and apply it two or three times, rubbing in well with brush. This never fails to remove the vermin. Scoury on cattle can be successfully treated by the application of fresh hog's lard to the affected parts, previously washed clean with soap and water.

SALE OF SHORT-HORNS.

The popularity of Short-horns stock is well sustained. Although we can not expect to see the excitement which attended the sale of Mr. Campbell's Duchesses repeated within a generation, yet the recent sale of Mr. Coffin's herd at Muirkirk, near Baltimore, shows that, as a matter of mere business, a sale of excellent stock will attract buyers from all parts of the country, and that good stock retains its full value. The herd consisted of forty-two cows and heifers and twelve bulls, which were descended from the best families of both the Booth and Bates' strains. The average of the sale was \$640 per head. \$1,475 was the highest price paid for a cow, Muirkirk Gwynne, a three-year old roan, which goes to Kentucky, as also do eleven other of the best animals.

The sale of part of the Glen Flora herd, at Waukegan, Ill., on May 23rd, fifty head brought \$25,000. The highest price paid for cows was \$2,000 by T. C. Jones, of Delaware, Ohio, for Royal Duchess, and Avery & Murphy, of Detroit, Michigan, for Joan of Arc.

On May 21st, the Lyndale herd of Mr. W. S. King, of Minneapolis, Minn., was disposed of. There was fifty-eight cows and heifers and twenty-one bulls, sold for a total amount of \$101,615 for the cows and heifers, and \$25,375 for the bulls. The average prices were thus \$1,752 and \$1,200 respectively. The highest prices were for a pair of twin heifers, Lady Mary 7th and 8th, \$11,000, and for a bull, 2nd Duke of Hillhurst, \$14,000. This last price is the highest ever yet paid for a bull; and thus those who fancied that the prices paid at Mr. Campbell's sale would never again be reached, have proved to be mistaken. Indeed, considering the well-deserved popularity of the best families of Short-horns, and the high excellence and intrinsic value of this class of stock generally, it is unsafe to predict that present prices may not be far outreached in the future.

# UNCLE TOM'S COLUMN.

MY DEAR NIECES AND NEPHEWS:

I will give you no puzzles at all this time just for a change, but will devote the space to GAMES. I commence this early in the year to get ready for the winter evenings, because there are so many games to tell you about, and so many *forfeits* to explain, that it will take me until the middle of winter to do so, commencing now. The following descriptions are by my niece Almira Ryan:—

## GAMES.

### No. 1.

#### BUFF WITH THE WAND.

Having blindfolded one of the party, the rest take hold of each others hands in a circle around him, he holding a long stick. The players then skip around him once and top. Buffy then stretches forth his wand and directs it by chance, and the person whom it touches must grasp the end presented and call out three times in a feigned voice. If Buffy recognizes him they change places, but if not he must continue blind until he makes a right guess. There are forfeits for mistakes.

### No. 2.

#### THE COUNTRY CLUB.

A pack of cards having been produced, the dealer gives them forth one at a time to the person next him, calling out its name at the same time in a drawing monotonous voice. Thus, "The four of hearts;" the next repeats in the same way, pushing it to his next neighbor, who does the same until it has gone the round of the circle, but there is no cessation of either the dealing forth the cards or the repetition of their names, and thus a continuous murmur of voices is going on. But added to this whenever the dealer comes to a picture card, he not only calls out its name but he adds *shop* as he passes it on to his neighbor, who loses the same in performing his part of pushing it forward. Sometimes it will happen that this whoop is being repeated at two or three different parts of the table at once, which, together with the monotonous hum of "The three of spades," "The nine of diamonds," &c., makes such a Babel of the drawing-room that one round of the pack, or sometimes less, is sufficient for an evening.

### No. 3.

#### THE TRAVELLER'S ALPHABET.

This is a game to set juvenile wits to work. The players sit in a circle or around a table. The first one starts by saying to his left hand neighbor, "I am going to Asia," or any place commencing with A. The one so addressed will turn to his or her left hand and ask, "What will you do there?" The reply must come prompt from the third, "Ask for apples," or anything commencing with A. In every instance the verbs and nouns must commence with the letter the traveller is journeying to—for instance, "I am going to Bath." "What will you do there?" "Bathe my." "I am going to China." "What will you do there?" "Chop china," and so on throughout the alphabet. Should a player hesitate while five can be counted a forfeit is the result; also if any mistake is made in following with the right letter.

### No. 4.

#### THE ELEMENTS; OR, EARTH, AIR, FIRE AND WATER.

In this game the party sit in a circle. One throws a handkerchief at another and calls out *vir*. The person whom the handkerchief hits must call out the name of some bird or some creature that belongs to the *air* before the caller can count ten, which he does in a loud voice. If a creature that does not live in the air is named, or if a person fails to speak quickly enough a forfeit must be paid. The person who catches the handkerchief throws it to another in turn and cries out *earth*. The person whom it hits must call out some animal or creature which lives upon the *earth*, in the same space of time allowed the other, then throw the handkerchief to another and call out *water*. The one who catches the handkerchief observes the same rules as the preceding, and is liable to the same forfeit unless he calls out immediately some creature that lives in water. Any one who mentions a bird, beast or fish is likewise liable to a forfeit. If any player calls out fire every one must keep silence, because no creature lives in that element.

### No. 5. MIND YOUR P'S AND Q'S.

The leader of this game addresses the party with the remark, "My mistress is dainty, she does not like peas, what shall we give her for dinner to-day?" One may suggest, "Roast beef, potatoes and plum pudding." The leader gives a shake of the head, demands a forfeit, and turning to the next repeats, "My mistress is dainty, she does not like peas, what shall we give her for dinner?" "Roast pork and parsnips," cries another. "She does not like them, pay a forfeit," and the same question is repeated. The third perhaps suggests, "Boiled mutton, cauliflower and dry bread?" "These will please her," replies the leader and he pays a forfeit. If only two or three are in the secret the game may proceed for some time to the intense mystification of the remainder, who have no idea what they have said to incur or escape the penalty. It depends merely on a play of words, the mistress no liking P's. The players must avoid giving an answer in which that letter occurs, as the same proposition must not be repeated twice. Those even in the plot are sometimes caught, as the reply they had prepared for themselves is occasionally forestalled by another player and they have no time for consideration.

The three following games are from descriptions by Lizzie Forbes:—

#### HAGGA HADDA?ADDA.

A boundary mark is drawn, and an equal division of boys is ranged upon each side. They caper up and down by the edge of the line, each party defying the other to cross until some one makes a dart over to the other side. If he can strike an opponent and escape safely over to his own party within the space of a single breath, that opponent is dead. A prolonged noise in the throat indicates the length of a single breath. If the invader is captured and held until he has drawn a second breath he remains a prisoner in the hands of the enemy. The sport is carried on until one side becomes so weak that the other side can sally across and put an end to the game.

#### FOLLOW YOUR LEADER.

A having obtained a promise from the rest to repeat whatever she says, begins as follows: "A good fat hen and about she goes." Bi immediately says the same. C, D and E quickly repeat it, and so around the circle in rapid succession. When all have in turn uttered the mysterious words, A leads off again with, "Two ducks a good fat hen and about she goes," and this must be all repeated by the rest. After which, "Three plump partridges, two ducks, a good fat hen and about she goes," becomes the formula. The fourth time begins with, "Four screaming wild geese, three plump partridges, &c.," and so on, one new sentence being prefixed by the leader at each round, and repeated by all the rest. At the twelfth circuit, should the memory and patience of the party endure so long, the formula has grown to this length, "Twelve Calif ronian catamounts cautiously careering over Corinthian columns, closely concatenated to a Catholic cemetery; eleven belted and whiskered bravadoes biting a bit of bitter but er-nut."

#### SUCCOTASH.

Succotash has two parts—corn and beans. It is best in learning the game to commence with the first part, beans, in this way. All the players being seated, one begins by counting one; the next right hand neighbor says two; the third three, and so on, until seven is reached, when instead of saying seven they say beans. Then keep on counting, each naming his proper number in turn, eight, nine, ten, &c., until fourteen is reached, but say beans instead of fourteen. Go on again, saying beans instead of seventeen, or twenty-one, or twenty-seven. In other words the rule of the game is—beans is to be said instead of seven, or any multiple or compound of seven. Of course when seventy is reached it will be beans all the way through, with beans beans for seventy-seven. Whoever fails to say beans at the right place, or says it at the wrong number is out, and the others play on until all are out. The counting up to eighty-four, then begins at one again. When you are playing with corn, say corn whenever nine occurs and count up to 108. Next mix for succotash, raising beans and corn wherever seven and nine occurs. Be sure and call out succotash at twenty-seven, because it is a multiple of nine and a compound of seven. You will find this a capital game to fix the multiplication table in the mind so that the figures will stay in their places.

The following are by Hattie Haviland:—

#### THE LEG OF MUTTON.

The players place their fists alternately upon the other, then the fist which is lowermost is withdrawn and placed on the top of the pile, each as he withdraws his fist counting one, two and so on to nine. As soon as the

ninth fist is placed on the top, the whole pile is overturned, each hand being withdrawn as quickly as possible. The one who has pronounced the word "nine" must endeavor to catch one of his companions by the hand, saying "This is my leg of mutton." If he fails to do this he has to pay a forfeit. If he succeeds in catching a hand he says to the player who has allowed himself to be caught, "Will you do one of three things?" If the player is polite he simply answers, "I will if I can." Others might reply, "I will if I like." Then the winner gives him three things to do, and he performs either at his choice.

#### THE FAGOTS.

This game consists in forming a double circle, the players placing themselves two by two, so that each gentleman, by holding a lady in front of him, makes what is called a fagot. It is necessary that the players should be of an even number. The circle being formed two persons are chosen, the one to catch the other. When the person who is pursued does not wish to be overtaken (which would oblige him to take the place of the pursuer), and at the same time desires to rest, he places himself in front of any one of the fagots he chooses, but within the circle, so that this fagot is then composed of three persons, which is contrary to the rule. Then the third one, who is on the outside of the circle, must at once run to avoid being caught. If he is caught he takes the place of the pursuer, who in his turn starts off, or, if he prefers it, enters into the circle, and places himself before one of the fagots, thus obliging a new player to run like the former one; this player himself can at once oblige another player to run, by placing himself in his turn, before a fagot, and it is in this which gives life to the game, provided the players have a fair share of spirit and agility.

#### Uncle Tom's Scrap Book.

A tall, green looking youth stepped into a village grocery, where they kept something to drink as well as to eat, and after peering about a little, spied some ginger cakes. "What's the least you'll take for one of 'em?" "Ten cents," replied the grocer. "Well I guess I'll take one, if you'll wrap it up right good." The grocer wrapped up the cake, and handed it to him. He looked thoughtfully at it awhile and said, "I don't believe I want this cake after all. Won't you swap me a drink for it?" "Yes," said the grocer, as he took back the cake and handed him a glass of something. The young man swallowed the liquor and started off. "Hold on!" cried the grocer, "you haven't paid me for my drink." "I swapped you the cake for the drink." "But you haven't paid me for the cake." "You've got your cake." This last resort so nonplussed the grocer that he stood and scratched his puzzled head while the young man made good his retreat.

#### HATTIE HAVILAND.

#### JUDGING BY APPEARANCES.

A good story is told by a Yankee editor, in illustration by judging from appearances. A person dressed in a suit of homespun clothes, stepping into a house in Boston on some business where several ladies were assembled in an inner room. One of the company remarked in a low tone that a country man was in waiting, and agreed to have some fun. The following dialogue ensued: "You're from the country, I suppose?" "Yes, I'm from the country." "Well, sir, what do you think of the city?" "It's got a tarnel sight of houses in it." "I expect there's a great many ladies where you came from?" "Oh, yes, a wondy sight; just for the world like them," pointing to the ladies. "And you are quite a beau among them no doubt." "Yes, I beaus them to meeting and about." "Maybe the gentleman will take a glass of wine," said one of the company. "Thankee; don't care if I do." "But you must drink a toast." "I eat toast what Aunt Debby makes, but as to drinking, I never seed the like." What was the surprise of the company to hear the stranger speak as follows:—"Ladies and gentlemen, permit me to wish you health and happiness, with every other blessing the earth can afford, and advise you to bear in mind that we are often deceived by appearances. You mistake me by my dress for a country booby; I, from the same cause, thought these men were gentlemen. The deception was mutual. I wish you a good evening."

"Who's there?" said Jenkins one cold winter's night, disturbed in his repose by some one knocking at the street door. "A friend," was the answer. "What do you want?" "Want to stay here all night," "Queer taste ain't it? But stay there, by all means," was the benevolent reply.

QUICKER TIME. - A gentleman had occasion to call on the Rev. Dominie Thomas Campbell when he was at Glasgow. "Is the Dominie in?" he inquired of a portly dame who opened the door. "He's in the yard, superintending, Sauners, the carpenter. Ye can see him the noo if your business is very precise." The gentleman walked into the yard, where he beheld the carpenter briskly planing away to the air of Maggie Lauder, and the dominie standing by. Unwilling to intrude on their conversation, he stepped aside and heard, "Sauners, I say Can ye no here me?" "Yes, minister, I hear ye. What's your wull?" Can ye no whistle some mair solemn and godly tune while we'er at your work?" "A-weel, minister, if it be your wull, I'll e'en do it." Upon which he changed the air to the Dead March in Saul, greatly to the hindrance of the planing. The dominie looked on for some minutes in silence, and then said, "Sauners I hae another word to say till ye. Did the guid wife hire ye by the day's darg or by the job?" "The day's darg was our agreeing, mister." Then, on the whole, Sauners, I think ye may jest as well gie back to whistle Bonnie Maggie Lauder!"

Cases are abundant where wives, being outrageously abused, have turned savage against meddlers who came to the rescue; but a marital climax is capped by a woman whose nose had been bitten off by her husband. The man was arrested and brought to trial, and when the woman was put on the stand to testify, she electrified the bench and bar by swearing that he had bitten her nose off herself!

A Mississippi pilot saw the comet, the other night, and immediately cried, "I've got 'em; snakes I've had before, but now the stars have got tail's on 'em; I'm a dead man!"

An old army surgeon was very fond of perpetrating a joke on others, though very angry at being made the subject of one himself. At a dinner when the decauter passed freely, a brother officersaid: "Doctor, I've got a letter from Capt. G—and I'll wager you a dozen of old port that you can't guess in five guesses how he spells car." "Done" said the Doctor. "Commence guessing," said the officer. "K-a-double-t." "No," "K-a-t-e." "No; try again." "C-a-t." "Missed again." "C-a-double-t." "No; try again, it's your last chance." "C-a-g-h-t." "No; thundered the wag; "you've lost the wager." "How did he spell it, then?" inquired the Doctor, with great petulance. Why, he spelled it c-a-t, replied the wag with the utmost gravity, amid the roars of the mess.

#### SLIGHTLY MIXED.

We are not obliged to tell how the following funny letter fell into our hands. All the reader has to do is to read it and laugh at it. We congratulate the new made parent, and hope he will get over his confusion of ideas shortly so as to be able to tell his baby from his horse. "DEAR SISTER EMMA.—I now take my seat, and sit down to take this opportunity to inform you that I am at last—that is, I suppose I am, for Addie has got a nice fat baby as ever made up faces. We hope these few lines may find you enjoying the same blessing. Now this is to be strictly a business letter. Firstly, as I said before, Addie has got a nice baby. Nextly, I have swapped away old John, and I think I have got a pretty nice horse. It is a girl and weighs nine pounds—I mean the baby. It is just as fat as butter, and has a good pair of lungs. She is red, and has a hobtail—the horse I mean—and a white strip in her face, and is a good driver. She has got blue eyes and a dimple chin—I mean the baby—and just the prettiest mouth that ever opened to receive pap. Judging from her teeth I should think she was about six years old—I mean the horse, now. She is sound, smooth, and kind—I mean the horse or baby or either now—and the Doctor says she is the finest he ever saw, without any exception—he meant the baby. I got twenty-five dollars to boot—not on the baby, though, for in its case the boot is on the other foot, and two or three sizes larger, as near as I can find. I am going to harness the horse now and go after mother. She was born last night at twenty minutes past nine—I hope you don't think I meant in ther or the horse, but the baby. She is as hearty as a pig, ate an egg a buscuit, and drank three cups of tea—I mean Addie. She is getting along nicely, and if she don't have any better luck she will get along first rate. She is subject to disorders of the stomach, and they say that is a sure sign of colic—I mean the baby. I hope it is, for the nurse says colicky babies never die. She talks through her nose as she takes snuff—I mean the nurse. I am going to name her Edieme—I mean the baby. There I've been reading this over, and I see plainly that I ain't fit to write. The amount of it is, I am flustered. I am a happy daddy, and that, accounts for it; so you must excuse me for this time.



MINNIE MAY'S DEPARTMENT.

This is another busy month for the good housewife. What with pickles and preserves to be made, and fruit to be canned, all at a hot stove and in burning hot weather, we have a warm time of it.

Sarnia, July 14th, 1874.

Dear Minnie May, I find so many excellent recipes in your department, and have been so much aided by them, that I feel it to be my duty to send something in return.

CHARLOTTE K. JOHNSON.

WORTH WHILE FOR WOMEN TO KNOW.

If ever a woman rightly feels her importance in the order of creation, it is after she has successfully brought her spring cleaning to a close.

Painted walls should be washed in cold water with cloths tied over a broom, first dusting them well in the same manner. Have the water changed often, and see that the strokes are made as evenly as possible up and down, or the walls will be streaked when dry.

Papering and painting rooms are not subjects to be disposed of in a paragraph, but in the country, where it is not always possible to command the services of a paper-hanger, it is worth while to know the best way of taking paper off, as this is a work servants can do, saving the expense of extra hands for days to prepare a single room.

The color of old curtains and chairs covered with woolen stuff, is improved by beating with woolen stuff, is improved by beating all the dust out of them and rubbing with a dry brush; then going over them with a lather of Castile soap and warm water, and rinsing with a solution of alum in hot water, wiping off with old soft cloths, that will absorb as much of it as possible.

Carpets and rugs should be taken up and well beaten; the floor cleaned, when if the carpets need cleansing, it will be the most convenient place to do it.

What is called dry cleaning is done by taking out grease spots with a brush dipped in hot water and gall made very strong; dry by rubbing with cloths and leaving in a very warm room, then strew damp sand over the cloth or carpet, brush it out with a hard broom, and it will bring away most of the dirt with it.

Chintz furniture covers and curtains can be washed in rice water. Two pounds of rice boiled in two gallons of water till soft should be added to a tub of boiling water.

Chintz furniture covers and curtains can be washed in rice water. Two pounds of rice boiled in two gallons of water till soft should be added to a tub of boiling water.

Holmesville, June, 1874.

Dear Minnie May, I like your column so much; I know it is a great help to us farmers' wives and daughters. Several families in our neighborhood have taken the ADVOCATE because they liked your column so much, but please don't tell Mr. Weld, or he will be jealous.

I send you a recipe for BREAD SAUCE.

Soak some stale bread and boil a few onions; mix them together, with a little gravy or butter, pepper, salt, and sage or thyme; stew a little while, stirring it often. You will find it a very nice way to use up old dry bread.

Poplar Grove, May, 1874.

Dear Minnie May, I have become interested in your worthy column, and I thought if you would consider me worthy, I would send you a few recipes. The first is

TO CRYSTALLIZE FLOWERS.

Construct some baskets of fancy form with pliable copper wire, and wrap them with gauze. Tie to the bottom violets, ferns, geranium leaves—well, in fact, any flowers, with the exception of full blown roses, and

sink them in a solution of alum—one pound to a gallon of water. After the solution is cold, the flowers will then be preserved in all their original color, and the crystallized alum will set faster than when from a hot solution.

TO WASH COTTONS.

Infuse three gills of salt in four quarts of boiling water; put in the cottons while hot, and let them remain till cold. In this way the color of cottons are restored.

A nice cake is made as follows:

CIDER CAKE.

Flour, six cups; sugar, three cups; butter, one cup; four eggs; cider, one cup; saleratus; one teaspoon; one grated nutmeg. Beat the eggs, sugar and butter together, and stir in the flour and nutmeg; dissolve the saleratus in the cider and stir into the mass, and bake immediately in a quick oven.

LAMB CHOPS.

Fry them a light brown in butter; then add a little water, flour, salt, and a dust of pepper to the gravy. Let it brown and pour it over the chops.

TO REMOVE GREASE SPOTS.

Spirits of turpentine are good to take out grease, or drops of paint out of cloth; apply it till the paint can be scraped off. Rub French chalk or magnesia on silk or ribbon that has been greased, and hold it near the fire. This will absorb the grease so that it can be brushed off.

Hoping you will not overlook me, as I wish to be one of the members of your housekeeping column, I remain yours, &c., S. B.—Y.

IRONING WITHOUT HEAT.

A lady of experience says that much time and trouble may be saved by ironing without heat and flat-irons. When rinsing the clothes, fold coarse sheets, towels and tablecloths in the shape they are wanted, and pass them through the wringer as tight as possible.

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PROVINCIAL EXHIBITION OF THE AGRICULTURAL & ARTS ASSOCIATION of Ontario, to be held at Toronto, the 21st to 25th September, 1874. Persons intending to exhibit will please take notice that entries of articles in the respective classes must be forwarded to the Secretary at Toronto, on or before the undermentioned dates, viz.—Horse, Cattle, Sheep, Swine, Poultry, Agricultural Implements, on or before Saturday, August 22nd; Grain, Field Roots and other Farm Products, Machinery and Manufactures generally, on or before Saturday, August 29th; Horticultural Products, Ladies' Work, Fine Arts, &c., on or before Saturday, September 12th. Prize Lists and Blank Forms for making the entries upon can be obtained of the Secretaries of all Agricultural Societies and Mechanics' Institutes throughout the Province. HUGH C. THOMSON, Secretary Agricultural and Arts Association.

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RICHARD BUNELSON, Galt, Breeder of Cotswold, Leicester, and Southdown Sheep.
W. LANG, St. Mary's, Breeder of Short Horns and Berkshire Pigs. 1-y
A. PARK, Ingersoll, breeder of Ayrshire cattle.
J. FEATHERSTONE, Credit, breeder of Essex, Suffolk, and Yorkshire Pigs, and Cotswold Sheep.
GEORGE MILLER, Importer and Breeder of Short Horn Cattle, Cotswold & Leicester Sheep, and Berkshire Swine, Markham P. O. 12
JAMES LAWRIE, Malvern P. O., importer and breeder of Ayrshire Cattle, Clydesdale Horses, Berkshire Pigs, and Leicester Sheep. 11-ly
GEORGE G. MANN, Bowmanville, Importer and breeder of Thorough-bred Devon Cattle. 11-ly
JOHN SCOTT, Coldstream, Breeder of Leicester Sheep and Short-Horn Cattle. 11-ly
THOS IRVING, Logans Farm, Montreal Breeder of Ayrshire Cattle, Clydesdale Horses, Yorkshire and Berkshire Pigs, and Leicester Sheep. 11-ly
BRODIE, SON & CONVERSE, Breeders of Yorkshire Pigs and Ayrshire Cattle. Address Jas. Brodie, Rural Hill, Jeff. Co., N. Y.; J. F. Converse, Woodville, Jeff. Co., N. Y.; Hugh Brodie, Belleville, Ont. 11-ly
W. HOOD, Guelph, Breeder of Galloway Cattle. 11-ly
J. MILLER, Thistle-"ha," Brougham P. O., Breeder of Short-Horns, Cotswold Sheep, improved Berkshire Pigs and Clydesdale Horses. 11-ly
R. LEAN, Coldsprings, Breeder of Leicester Sheep and Berkshire Pigs. 11-ly
G. MORTON, Morton P. O., Breeder of Ayrshire Cattle. 11-ly
JOHN SNELL & SONS, Edmonton, Breeders of Short-Horn Cattle, Leicester and Cotswold Sheep, and improved Berkshire Pigs. Winner of the Prince of Wales prize for the best Bull and five of his Calves at Provincial Exhibition, Kingston 1871. 11-ft
F. W. STONE, Morton Lodge Guelph, Importer and Breeder of Short-Horn and Hereford Cattle, Cotswold and Southdown Sheep, and Berkshire and Yorkshire Pigs and Suffolk Horses. 11-ft
JAMES COWAN CLOCKMOHR, Galt P. O., Breeder of Short-Horns Leicester Sheep and Essex Pigs. 71-10
J. R. HUNTER, Alma, Breeder and Importer of Short Horn Cattle. 11-7
FOR SALE—Imported and Thoroughbred AYRSHIRE STOCK Catalogues furnished on application. S. N. WHITNEY, Montreal. P. Q., Canada.
THREE YEAR OLD AYRSHIRE BULL FOR SALE. Apply at this office.
JOHN EEDY, Granton P. O., Biddulph Township Breeder of Lincoln, Leicester and Cotswold Sheep.
WM. ASH, Breeder of pure Leicester and South Down Sheep, and Durham Cattle, Thorold. 2-y
THOS. GUY, Sydenham Farm, Oshawa, Breeder of Ayrshire and Devon Cattle. 72-3-y
PETER COOK, Thorold, Ont., Breeder of Durham Cattle.
EDW. JEFFS, Bond Head, Breeder of Short Horns, Leicester Sheep, Berkshire and Chester White Pigs. 72-3-y
JOHN BELLWOOD, Newcastle, Ontario, Canada, Breeder of Short Horn Cattle, Clydesdale Horses, Cotswold Sheep and Berkshire Pigs.—Young Bulls and Heifers for sale. 3-ly
SHORT HORNS, Ayrshires and Berkshire Pigs The subscriber offers a few choice animals of the BEST BREEDS, male and female, from IMPORTED STOCK of the most approved strains. Catalogues on application. M. H. COCHRANE, Compton, P. Q., Canada. 8

M. & A. A. McARTHUR, Lobo, Breeders of Leicester Sheep.
P. GRANT & SONS, Breeders of Lincoln Sheep Hamilton, Ont.
JAMES SHERLOCK, Breeder of Berkshire pigs; a thoroughbred Berkshire boar for service.—Thamesford P. O. 3-ly
JAMES NIMMO, Camden East, Breeder of Ayrshire and Durham Cattle and Berkshire Pigs. 3-ly
J. & P. BROOKS, Whalen P. O., Breeders of Leicester sheep. Carried off the prizes at Guelph and London in 1873. 3-ly
JOHN DARLING, Importer and Breeder of Lincoln and Leicester Sheep, McGillivray, Brinsley P. O., Ont. 7-ly
JOHN EEDY, Granton P. O., London Township, Breeder of Leicester and Cotswold Sheep.

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

FARMS FOR SALE.
THREE CHOICE FARMS, 100 ACRES EACH, Convenient to the Aylmer R. R. Station, for sale on easy terms. Apply to DANIEL STEWART, Aylmer P. O., Elgin Co., Ont.
FREE to all applicants—my Nursery and Bulb Catalogues. F. K. PRIGNIX, Bloomington, Ill. 9-2t

COTSWOLD RAM LAMBS.

Forty large, and good, with heavy fleeces, sired by imported Rams, and from imported Ewes, or Ewes bred from imported stock.

BERKSHIRE PIGS.
Ten young Boars, and a few young Sows, sired by imported Sir Heber Humphrey and Gloster's Sambo. JOHN SNELL'S SONS, Willow Lodge, Edmunton, Ont.

FOWLS FOR SALE!

PERSONS DESIRING TO PROCURE FANCY FOWLS, cannot do better than give me a call, as I intend selling out most of my varieties, not having time to attend to them.

Old and Young can be Procured at Very Reasonable Prices.

Dark Brahmas, Buff Cochins, Grey Dorkins, Black White-Crested Polands, Houdans, S. S. Hamburgs, White Leghorns, AYLESBURY AND ROUEN DUCKS. JOHN WELD, LONDON, ONT.

FREE to all applicants—my Nursery and Bulb Catalogues. F. K. PRIGNIX, Bloomington, Ill. 9-2t

TREES, ETC.

Autumn of 1874. We invite the attention of Planters and Dealers to our large and complete stock of

Standard & Dwarf Fruit Trees. Grape-Vines, Small Fruits. Ornamental Trees, Shrubs, Roses. New and Rare Fruit & Ornamental Trees. Evergreens and Bulbous Roots. New and Rare Green and Hot House Plants. Small parcels forwarded by mail when desired. Prompt Attention given to all Enquiries. Descriptive and Illustrated priced Catalogues sent prepaid on receipt of Stamps, as follows: No. 1—Fruits, 10c. No. 2—Ornamental Trees 10c. No. 3—Greenhouse, 10c. No. 4—Wholesale, Free. Address ELLWANGER & BARRY, Mount Hope Nurseries, ROCHESTER, N. Y. 9-2t

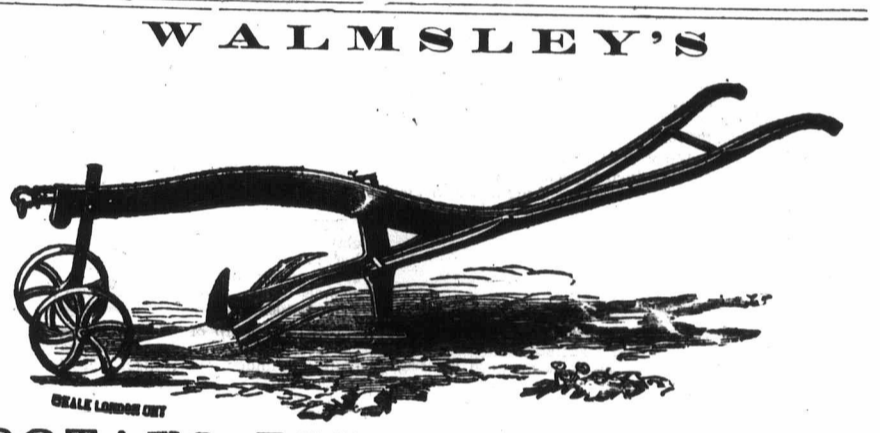
SHORT HORNS FOR SALE—A few young bulls; also a few Cows and Heifers—good ones—good pedigrees, good color, mostly red.—Come and see, or address for particulars—SETH HEACOCK, 3-ft Oakland Farm, Kettleby P. O., Ont

To Those That Keep Bees!

As this is the Swarming Season now for Bees, and more or less of them make for the woods and are lost, if you wish to recover them you should send and get one of Minthorn's Bee Hunters' Guides, Price, 25 cts. in silver, prepaid. J. W. MINTHORN, Orillia, Ont. 8-1t

CENTRAL EXHIBITION, 1874.

\$8,000 Offered in Premiums! WILL BE HELD In the Town of Guelph, ON THE 15th, 16th, 17th & 18th September OPEN TO ALL. PRIZE LISTS and ENTRY PAPERS can be had at the Secretary's Office, Guelph, and also from the Secretaries of other Societies throughout the Province. Parties not receiving their entry tickets prior to the Show will find them at the Secretary's office. G. MURTON, Secretary. J. B. ARMSTRONG, President. Guelph, July 28, 1874. 9-1t



POTATO DIGGER, IMPROVED

MANUFACTURED BY R. DENNIS, LONDON. THIS IS ONE OF THE MOST USEFUL LABOR-SAVING IMPLEMENTS OF RECENT date. It will dig four acres of potatoes in one day. It does its work efficiently. Scores of satisfactory references can now be given. The first unimproved digger did not give general satisfaction; now all are satisfied with it. It will save its cost in one day's work in some localities. Price of the Digger, \$18. Address R. DENNIS, London, or W. WELD, Agricultural Emporium London.



THE SCOTT WHEAT.

THIS WHEAT WILL STAND THE WINTER BETTER THAN ANY OTHER VARIETY—IT WILL YIELD A BETTER AVERAGE—IT IS OF GOOD QUALITY AND STIFF IN THE STRAW—IT IS A WHITE CHAFFED RED WHEAT (See article on first page of this paper.)

PRICE—For best quality, \$3 per 100 pounds; in quantities of 1000 pounds, \$2.50 per 100 pounds. Special rates for car loads. Bags extra, 40 cts. each. In ordering, give name and Post Office address; also state to what Station it is to be sent, and by what Railway. Address AGRICULTURAL EMPORIUM, London, Ont.

SAINFOIN, OR FRENCH CLOVER.

Sometimes called TRIFOLIUM. WHILE IN FRANCE, WE WERE SO MUCH pleased with this profitable species of clover that we determined to try it in Canada. We therefore brought out with us some of the seed. We will put a small package of this seed in every lot of Scott Wheat sent out this fall, in order that you may test it. Sow half of it in the fall and the other half in the spring, either with wheat or alone. This will enable you to find out if it will pay to grow it in quantities. Also we will send for trial a small package of the Clawson, Seneca or Red Chaffed Bald Wheat, which is advertised at the highest price in Canada and in United States. This will be free to all purchasing the Scott Wheat. To Farmers desiring to purchase this wheat we will supply it at \$3 per bushel.

George B. Harris & Co.'s Land Office, LONDON, - - - ONTARIO.

IMPROVED FARMS AND WILD LANDS FOR SALE IN ALL THE WESTERN COUNTIES. ALSO, MILL PROPERTIES AND DESIRABLE FAMILY RESIDENCES.

Trust Funds for Investment on Real Estate and Mortgages Bought. Parties wishing to purchase or sell property, apply to GEORGE B. HARRIS & CO., LAND AGENTS, LONDON, ONT.

BRUCE.

31-147, Township of Curocks.—200 acres, 150 improved, balance hardwood, cedar and pine; fine orchard, about 300 trees; clay loam. Large comfortable two-story frame house (local post office) large barn, drive house, sheds, &c. This is a first class dairy farm. There is also on the farm a first class grist and saw mill, with a fine pond of water. Good custom trade in the country. There is also on the farm brick clay of the best description. Present owner has been using a brick machine, and turning out a splendid sample, for which there is a good local demand. Price \$20,000. Satisfactory reasons for selling.

68-84, Township of Ashfield.—200 acres wild land. Price \$10 an acre; terms easy.

ESSEX.

48-136, Township of Anderton.—50 acres, about 30 improved. Good orchard, about 2 acres; good well, also spring creek. Hardwood; black loam. Good new frame house, log out-buildings. Three miles from Amherstburg Station, on the Canada Southern Railway. Price \$1000; terms easy.

49-137, Township of Maidstone.—50 acres, about 30 improved; balance hardwood; black loam. New frame house, log out-buildings. Market Essex Centre, 4 miles; station on the Canada Southern Railway. Price \$1600; terms easy.

50-138, Township of Sandwich East.—100 acres, 50 cleared; balance hardwood. Log house, barn, stables. Gravel road, 4 miles from Windsor. Price \$3000; terms easy.

51-139, Township of Malden.—320 acres, nearly all clear; a splendid grazing farm. Frame house, barn and stables. Two miles from Amherstburg, on the Detroit River. Price \$11,000; terms easy.

52-140, Township of Colchester.—100 acres, about 30 improved. Three miles from Belle River Station, on G. W. Railway. Price \$2500; terms easy.

54-142, Township of Tilbury West.—100 acres, 40 improved. New frame barn, shed and stable. One mile from Comber Station, on the Canada Southern Railway. Price \$3000; terms easy.

36-152, Township of Tilbury West.—50 acres, bush; beech, maple, white and red oak, ash and elm. Churches and schools within three miles. This and the following lot would make a good farm. Clay loam. Price \$750; terms easy.

37-153, Township of Tilbury West.—50 acres, bush; beech, maple, oak and ash; clay loam. Adjoins the above lot, and would, with it, make a good farm. Price \$750; terms easy.

75-165, Township of Rochester.—100 acres, high and dry; good drainage. Hickory and cordwood. Price \$1000; terms easy. One mile from the Canada Southern Railway.

77-167, Township of Colchester.—361 acres, 120 improved; oak, hickory, walnut, white wood; good orchard; light loam. Comfortable two-story house, barn and stables. Churches and schools near; good roads. Chestnut orchard; average yield \$150 a year. Price \$10,000; terms easy.

ELGIN.

4-23, Township of Dunwich.—100 acres; 50 cleared, 50 well timbered; Maple, Beech, Oak, Elm and Ash. Good bearing orchard, grafted fruit; clay loam and sand. Frame house and good barn; churches and schools within two miles; railway station 2 1/2 miles. Price \$3,000; terms easy.

6-40, Township of Dunwich.—92 acres; 60 improved, 32 acres timbered; Beech and Maple. About 100 fruit trees. Clay and sand loam. Frame House, Churches and schools close; railway station, 2 miles. Price, \$3,300; terms easy.

12-64, Township of Bayham.—140 acres; 70 improved. Maple, Beech, Chestnut, Black Ash, and a few Pine. A good sugar bush of 900 trees. Orchard grafted fruit. Clay loam; timber on this farm sufficient to

pay for it; under-drained; frame House; good out-buildings; churches and schools close. Price \$1,000; terms easy.

29-143, Township of Yarmouth.—50 acres; 22 improved. Balance heavy timber. Small bearing orchard. Gravelly loam. Frame house, barn and shed. Good spring; well fenced. Price \$950; terms easy.

30-144, Township of Yarmouth.—100 acres, about 60 improved; balance heavy timber; fine orchard, excellent fruit; mixed loam. Large comfortable frame house and out-buildings, frame barn. School, one mile; Churches, four miles. Price \$3000; terms very easy.

38-154, Township of Aldboro'.—100 acres, 75 improved; balance beech, maple, chestnut and white-wood; loam; orchard. Large frame house, barn, drive house and sheds, cow stables, &c. Churches within three miles, schools one mile. Price \$4500.

HURON.

28-131, Township of West Wawanosh.—100 acres, 55 improved; beech and maple; clay loam; never-failing springs. Orchard, log house, log stable. Schools close; churches within two miles; railway station, six miles. Price \$2200.

44-161, Township of West Wawanosh.—43 1/2 acres, 20 improved; balance principally hardwood, some pine; orchard; mixed soil; good springs; log house in good repair. Churches and schools near; Lucknow, seven miles. Price \$1200.

KENT.

57-164, Township of Dover East.—200 acres, 40 cleared; balance timbered land; clay and loam. Can be made a good dairy or stock farm; good drainage; 2 1/2 miles from Chatham. Price \$3000; terms easy.

LAMBTON.

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

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

72-88, Township of Dawn.—100 acres wild land hardwood timber. \$7 an acre; terms easy.

73-89, Township of Emiskillen.—150 acres, wild land. Black ash, oak and elm. \$8 an acre; terms easy.

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

43-100, Township of Moore.—75 acres; 50 improved; balance beech and Maple. Mellow clay loam, partly underdrained. Orchard. Good frame house, frame barn, log barn and log stables. Churches and schools near. Price \$3,500.

74-102, Township of Emiskillen.—100 acres wild land heavily timbered; Oak, Elm and Maple. Price \$10 an acre.

62-78, Township of Dawn.—100 acres wild land; Oak, Black Ash, Beech and Maple. Price \$700; terms easy.

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

67-83, Township of Dawn.—200 acres wild land; dry and timbered. \$7 an acre; terms easy.

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

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

MIDDLESEX.

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

26-129, Township of Lobo.—60 acres; 52 improved; Oak, Beech and Maple, &c. Clay loam. Well fenced. Barn and sheds 36 x 72. Creek. Churches and school 1/2 mile. Good roads. Price, \$3,200; terms easy.

32-148, Township of Westminster.—40 acres. New frame house four rooms and cellar. Good barn and out-houses; good orchard. Strong loam. Churches and schools close. Wharncliffe road. Within about a mile of the City of London. Price, \$2,000.

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

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

3-21, Township of West Williams.—50 acres, 40 clear; clay loam. Beech and maple, considerable fence timber, large orchard good fruit. New frame house, with stone cellar; out-buildings frame. Churches and schools within two miles; five miles from Parkhill. Price \$2100.

1-58, Township of Westminster.—188 acres, 158 clear. Beech and maple. Two fine orchards, grafted fruit, all under good fence. Clay loam. Two-story frame house, large frame barn, stable, sheds, &c. Good gravel roads; London eight miles; churches and schools close. Price \$11,000; terms easy.

7-59, Township of Lobo.—180 acres, 80 clear. Orchard grafted fruit; living springs; sandy and clay loam. One and a half story frame house, two frame barns. Schools and churches within two miles. Price \$7,900; terms easy.

8-61 (A), Township of London.—100 acres, improved. Never-failing spring creek. Maple, pine, oak and basswood, young orchard. Light loam. New frame house, large and comfortable; large new frame barn with stone cellar and stable. Schools close; London four miles; good gravel roads. Price 3,000; terms easy.

14-63, Township of Delaware.—105 acres, 40 improved. Beech, maple, oak and pine, fine orchard grafted fruit. Clay loam. Large frame house, with good cellar, good new barn, drive house and sheds. Good gravel roads; London eight miles. Price \$3,675; terms easy.

42-158, Township of London.—200 acres, 160 improved—hardwood. Two fine orchards grafted fruit. Clay loam, underdrained. Large comfortable frame house, on stone foundation; 2 barns, driving shed, stables, cattle sheds, &c., large stone cellar. Churches about 2 miles; schools close; London, 12 miles; Lucan, 5 miles. One of the best farms in the county, and in a high state of cultivation. Cheese factory on the farm. Price \$12,000; terms easy.

76-166, Township of Delaware.—300 acres, mostly improved. Extensive river frontage, strong land, good sugar bush. Large two-story brick house and out-buildings, but in bad order. Beautifully situated on the River Thames, adjoining the village of Delaware and 2 miles from Komoka Railway Station, on the G. W. R. Churches and schools close. A fine stock or dairy farm, produces a large quantity of hay. Price \$13,000; terms easy.

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

79-169, Township of Ekfrid.—96 1/2 acres, 70 improved. Beech, black ash, oak, maple and basswood. Black clay loam. Small orchard, frame house, barn and shed. Price \$3,600.

NORFOLK.

2-16, Township of Woodhouse.—208 acres; 168 improved, balance heavily timbered Oak, Chestnut and Pine. Abundance of water; never-failing springs. Large orchard grafted fruit. Large comfortable frame house, in good order; out-buildings, barns, &c., extensive and good. Board fence on the outside, inner fences rail. Sandy loam. 4 miles from Simcoe, county town. Price, \$8,500; terms easy.

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

16-103, Township of Charlottetown.—80 acres; 76 improved. Good orchard, Spring creek. Light loam. Frame House. School near. 9 miles from Simcoe County Town. Price, \$3,000.

55-150, Township of Windham.—200 acres. Sandy loam. Fine orchard. Good two-story brick house; barn and out-buildings good. 2 1/2 miles from Simcoe, County town; 8 miles from Delhi. Good gravel roads. Price, \$5,200.

47-162, Township of Charlottetown.—100 acres; 60 improved. Oak, Beech, Maple and Pine. Mixed soil. Good House, log barn and cellar. Orchard. Churches and schools within 1 1/2 miles. Price, \$1,600.

59-75, Township of Walsingham.—200 acres; timber mostly gone. Dry, good land; light loam. Price, \$1,200; terms easy.

OXFORD.

13-50, Township of Dereham.—116 acres, about 60 improved. Beech, maple and elm. Clay loam. Well fenced, new frame house, log barn. \$50 an acre; terms easy.

17-65, Township of South Norwich.—100 acres, 60 clear. Beech, birch, maple, some pine, ash and cedar, fine orchard grafted fruit. Mixed soil. Good large house, with cellar; barn drive house and sheds (good). Churches and schools within 2 miles. Price \$3,000; terms easy.

23-122, Township of North Oxford.—25 acres, all improved. Clay and gravelly loam; creek. Close to cheese factory, well fenced. Two miles from Ingersoll. Price \$1000.

24-123, Township of North Oxford.—20 acres, all improved. Gravelly clay loam. Good orchard, grafted fruit. Comfortable frame house and frame out-buildings; picket fence in front. Price \$1500; terms easy.

40-156, Township of Blenheim.—200 acres, 150 improved; hardwood; orchard; clay loam. Frame house, barns, stables, &c. Railway station, churches and schools near. Price \$6000.

PERTH.

18-110, Township of Mornington.—90 acres, 50 improved; balance timbered—beech, maple and elm; a few fruit trees. Heavy clay loam. Log house, well finished, good frame barn. Churches and schools near. Price \$3,200.

WATERLOO.

19-118, Township of Waterloo.—About 90 acres; 75 improved, balance hard wood; some cedar. Spring creek. Loam. New frame house; frame barn, with stables and cellar. Churches and schools close. 1 mile from Berlin. Price, \$65 an acre; terms easy.

20-119, Township of Waterloo.—About 130 acres, 90 to 100 improved. Beech and Maple. Spring creek. Loam. Good orchard. Frame house, and two frame barns. Churches and schools within two miles, Railway station two miles; Berlin 5 miles; Galt 3 miles. Price, \$45 an acre; terms easy.

21-120, Township of Waterloo.—140 acres; about 20 improved, balance heavily timbered; mostly Maple and Beech. Spring creek. A good water power about 30 feet head-fall. Dam fit for grist-mill. 1 1/2 story frame house; also log house and barn. Good loam. Churches and schools within 2 miles. Railway station 2 miles; Berlin 5 miles; Galt 3 miles. Price, \$8,500; terms easy.

Good and first-class Water and Steam Power Grist Mills for sale, in Middlesex, Elgin, Kent and Norfolk, full particulars of which will be given on application. Also a few desirable Country Residences, with from ten to thirty acres of land. Trust Funds for investment on Real Estate and Mortgages bought.

GEORGE B. HARRIS & CO., Land Agents, London, Ontario.



What of farmer and for him to en hardly say to try life, that ficient for all season of real to be harves look that the the earlier m before the fi potatoes mu stored, and i work done in sible. Potat cellar and pi will be bett better, with l October weat for us, almos important w rotted potat humid clima digging potat is that it can less expense. tato diggers tiously, but t general us are well lii procured the their potat a considera be found nec considerable and otherwis are left in the Turnips w the month—i that they gro of cold wea months, henc November. "Keep the not want fee time proverb a good advice advantages, rough and de mellow and in the Spring. tor and ferti pared for his This month the best for c wood or other said to be b burning long uses being mo Every repai farm premis done. Conve stock in winte their good con food; and let fall away. Ca