# N-LD 

Vol. 3] DRTOTED TO THE BEST INTERESTS OF THE COUNTRY. [No. 6 wiuhar wich \& London, June, 1868. $\left\{\begin{array}{c}\text { Postage } \\ \text { Free } \\ \text { Oflee } \\ \text { Davivone } \\ \text { Bro, op. City Hal }\end{array}\right.$

## SASKATCHAWAN OR THE NORTHWEST TERRITORY

Saskatchawan is the name of a large and higbly fertile valley lying on the east side of the Rocky Mountains, and west of the Red River. The extent of this and the Red River Plajns is little known by us, and we call the attention of our young men that are unable to find suitable locations in Canada to the faot that fuch a territory is in the British possession. The extent of tich fertile land owned by the British in that northwest region is in extent greater than the whole extent of fertile land to te found in Upper and Lower Cinada combined, and is destined to besome the bomes of millions of inhabitants. It is a territory rich in fertility of soil, having extensive coal mines ready for working. Other valuable minerals are found there, and what speaks higher and gqeater words for the country than we can utter, is that this tervitory is the home of the buffalo They live, breed and fatten there. There are about two hundred thousand killed annually, some for wanton sport, some for feed, some for building purposes, for the Indians make their tents of their hides. They rove over this vast rich fertile plain 'in countless thousands, moving over the plains like the waves of the sea, and about as easily enumerated as the sand on the sea shore. What is a buffalo? It is a cow in a wild state. Where cows can live man can live. Wild animals have inhabited all parts of the world. In no part of the whole earth has there ever been such a valuable, use-
ful and innumerable wild herd ever heard country; we have to pay every farthing of as these countless buffilocs that have that is sunk, squandred or wasted. We and still pass this vast fertile region. reap the profits of every judicious expenDoes this speak of health? Does it diture of money or labor. Many of you speak of the fatness of the land and of will not believe this, but it is a fact that plenty? The good book tells us still we can prove to you. You may not have there is much land to be passed. Shall had to pay the total expense of any imwe as cultivators of the soil take this provement or expenditure at first, but tract, cultivate, settle it, open a road to you have to pay all, or profit by all in an it, treat properly with the Indians about indirect manner, and you should underit, or shall we still send the poor emigrant stand it.better than you now do. One of for whom we have expended so muel our brothers spent months in surveying . money to induce him to come kere, shall the tract of country north-east of Lake we continue to send him on some of our Superior. We have a brother in the hard, rocky lands to scrape a little earth Austratian Colonies; another has been between the cracks of the rocks to cover in California and British Columbia, and a potatoe plant, or shall we send him into another in India. We have traveled in our light soil and pine timbered land Kansas ourselves, and at the present where he cannot cut the wood, and where time, with but a small capital to start on, the stumps must encumber the land when he is dead and buried. What is our present state? Our young men and men of families are leaving. us in thousands, or are going from our soil daily, and must and will go. If we are to be one of the nations of the earth we must have this north-west territory. We must open a road to it. Its all nonsense to talk of the strength of a nation being composed of a few strong military forts, or a few high paid officers, of a standing army, or an intercolonial raitroad. They are all so many leeches on us. We do not say they pre altogether unnecessary, but we say that our strongest fortifications is a large prosperous and contented yeomanry every able-bodied man of whom should be prepared to march in order and obey orders at any time. Farmers, we have o pay every cent that is expended in our
and a company of sturdy companions, we would prefer facing the long winter of the north-west territory of Saskatchawan or Red River than either of the above named places, were we hbout to move.
We may turn to this subject again; but time prevents, and our attention must at the present be turned to another subject.

Support your Farmer's Advocate; by so doing yon advance yourself and the interest of the country. Don't be putting it off till next year. Send in your subscriptions at once, if you have not done so already.
To Stop the Ravages of Caterpillare. -Take a pan with lighted charcoal, and place it under the branclies of the tree or bush. Throw a little brimstone on the coal ; the vapor arising will be mortal to these insects, and distroy all on the tree.

should persons advancing money to carry out the plans desire it．
Some say what do you want money for，with so much property．It is to carry fout more fully our plans．We require a proper Wareroom，more capital to pro－ cure and attend to the seed department， to help us improve ou paper，to attend to superior seed grain and stock，as it requires more than ordinary care and at－ tention to keep them as they ought to be kept．The undertaking is a large one and requires capital，but the prospect of its hecoming profitable next year ara high， ly encouraging．The Seed business when properly carried on；even on the smallest scale is highly remunerative，how much mote so when carried on Previncially，as ours＇already is．Farmers require imple－ ments and machinery，and there is gener－ ally more profit in the salesroom than in the factory．People require our stock throughout the States and many wish to improve in Canada．Will they go to pur－ chase where the best is to be had at the cheapest rate．Has a paper any power in a country or out of it．With our Ameri－ can agricultūral editors we are even on better terms than with our Canadians． Will that tend to the increase of our business？Gentlemen，you Kave not a safer，more beneficial $1^{\text {lan }}$ bofore you in －which you can safely and profitably invest capital．Let each public－spirited man， each enterprising farmer，each profession－ al gentleman or merchant that wishes the agricultural prosperity of the country，the county or the city，it matters not whether you may reside in Pentanguashine，the States，Cape Gaspe，England or in this city，you can assist this undertaking．Let each man that wishes well to his country take one note．We will guarantee that you will be satisfied with the investment． We can have the Agricultural Emporium established without a public tax，and every one may have a profit in it，and assist its establishment．

Parties wishing to assist it，or profit by it，can send for one or mere notes，per registered letter，and have the Enporium Note by return of post．We will publish the names of persons taking them，unless requested not to do so．Some may ask what are our liabilities．They do rot exceed $\$ 7,000$ ．

We also wish to take a journey to En－ gland，to make arrangement about our seeds for next Spring，and make other
necessary arrangements with seedsmen， secd－growers and stock－men there．

## THE WESTERN FAIR

On the earnest request of the President of the East ${ }^{2}$ Middlesex Agricultural Society，we withhold one of our leading articles for this month＇s paper．We wish to support any thing and everything that we are satisfied is for the Agricultural interest of the country． We have not written＂with the intent of in juring the Provincial Exhibition，the Board of Agriculture or Township Societies，but for the better management of them．We have strongly advocated the utility of farmer＇s clubs，and the establishment of Monthly or Quarterly fairs，and against racing at Agricul－ tural Exhibitons，and greater attention to the seed department．We are open to con－ viction，and if satisfied of agricultural ad vantage of this Western Fair we will give it our hearty support，but as yet we are not prepared to do so．Both sides of a question should be heard．The city papers will advo－ eate city interests．We will for the present comply with the President＇s request，and will give that gentleman or any other of either of the Boards of the city or County Societies，space in our paper for the intro－ duction of their plans in our next issue．In the mean time we would commend our readers not to act for or against it．The question should be openly discussed in the press．

## CROP PROSPECTS．

The seed－time just passed，has been the most favorable for getting the seeds into the ground in good order，tha $₫$ we ever remem－ ber．The land has been in good working order all the time，neither too wet or too dry and the grain prospects were never better as far as present appearances．The fall wheat never looked more promising．Those persons that have procured the midge proof varieties of spring and fall wheat，we feel tolerably well satisfied will reap a rich reward for their labor．Taxes and bills of all kinds will not be apt to trouble them much．The majority of such persons will be found with one or more Agricultural papers in their houses，but thousands of acres have again been sown by those persons that will not take an Agricultural paper，because they think they save a dollar by keeping it in their pockets．Foolish，delusion！Many of them have kept the dollar in their pockets and lost hundreds a year，by not knowing the most suitable kinds of grain to sow ；whereas $\$ 1$ for a paper and $\$ 1$ for proper seed at the proper time would by this time have returned them a profit of hundreds of dollars per annụm．
The Month．－The principal business to be done，is to keep down weeds，destroy insects， and prepare implements ready for the harvest
of the great and promising crop that looks so luxuriant at the present．Evergreens may still be planted；layers from plants may be made at the latter end of the month；attend the work to destroy weeds when young．
We received a post bill of the great plough ing match that was to take place at Whitby on the 22 d of May．It was too late for in－
sertion in our last issue．We have not yet sertion in our last issue．We have not yet
heard of the result，as our paper goes to herrs some days before the 1 st ，to give us
press time for mailing．We should liked to hive been there，but business keeps us to close to the office．We instructed our agent to attend there and report proceedings．

## ASSISTANCE REQUIRED．

We have in another part of our paper shown to you our present plan of getting We find that one farm is too small and ans person cannot pay the necessary attention to the breeding of the several classes of pure bred the breeding of the several classes of pure bred of all seed，manures and implements．Our sons，and we have nine in number，truly say they have not time to attend to all the things as they should be attended to．There are upwards of 100 acres of a crop to be taken from the ground，besides pasturage to be attended tó，and all this work has to be done by ourselves，independent of our office duties． We bave already formed a connection with the former president of the Horticultural Association of Toronto，Mr．Alexnnder Pon． tey，and his partner，Mr．W．Taylor．They have now moved to this city and are about establishing the most extensive Nursery to be found in the western part of the Pro－ vince，and are raising plants and vines to supply the Emporium．We have also up wards of 40 varieties of seeds，plants，vege－
tables and flowers of the choicest kind． tables and flowers of the choicest kind．
We want enterprising farmers to take
charge of each of the following olasses of charge of each of the following olasses of stock for us，or for themselves，and supply us with good animals as demands arrive． One person could take our Durhams，another our Ayrshires，another our Cheviots，another
our Leicesters，another our Cotswolds， our Leicesters，another our Cotswolds，another
our hogs and so on．It matters but little in our hogs and so on．I matters but little in what part of he Domin they may be demand，our means of communication being so complete．

Ans Anglo Saxon will be in London on Friday afternoons and Saturday mornings，
in Ingersoll on Wednesdays． in Ingersoll on Wednesdays．
We have just heard from the township of Westminster，that the white grub and black grob are committing great depredations in
some of the fields，particularly among the some of the fields，particularly among the
barley and oats ：also that the wire worm is unusually thick in some places．For the latter roll the ground well；it prevents their working．Our own crops are looking well．
NT The Cultivator given by Mr．Elliot，as the 1et prize
Cor the largeat elut obinined this month，took the firat prize at ho New York Btate Fair lapt antumn They may be lad by fending orders to the Foundry．Try and路

驾焉 We were in the market on Saturday．The
 Elliot of the Phesix Foundry，appeared to be dolng
nore business than all the reest；he sold two maehipea aring the short time we there．He informs ushe

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## F'ARMER'S ADVOCATE.

## WALKS AND TALKS ON THE FARM

Do you recollect a conversation we had about the system adopted by the Herki mer County dairymen, of breeding and feeding cows solely for milk, without any reference to their value for beef when they were no longer profitable for the dairy? I endeavored to show that at the present price of beef it would be better to keep a cow five years and then sell her for beef, and get another and keep her five years and selt her also for beef, than it was to keep one cow ten years until she was "used up" and of little value except for the hide. In' the latter case we figured a total profit of $\$ 210$ in the ten years ; and in the former case, a profit of $\$ 125$ in five years on one cow, aud consequently a botal profit on the tưe cows during the ten years of $\$ 250$.
A Cortland Co. farmer writes that I have made a mistake-that the profit on the old cow is $\$ 210$, and on the young cow $\$ 125$, and that consequently the present system of keepingeows until they are used up is more profitable than of turning them off at an earlier age for beef. He overlooks the fact that in the latter case we have two cows instead of one. The profit in the ten years is jnst double what he supposes. 'There is no mistake, except that the profit on the young cow is $\$ 130$ instead of $\$ 125$, and consequently $\$ 260$ instead of $\$ 250$, a mistake which adds teen dollars to the strength of the argument. I was very careful not to overestimate the profits of the new system. I think it would be casy to show greater advantages than those which we claimed. With beef at famine prices it seems a pity to keep a cow until there is nothing left of her but skin and bones.
The same writer says: "Some other ideas of Walks and Talks in the February No. differ from what I believe dairymen around here hold to, as when he says: 'It takes more food to produce a pound of cheese than a pound of beef.' I cannot say he is mistaken, as I have not tested it." He then asks if the cow that producod 600 lbs . of cheese in a year would produce more than 600 lbs . of beef with the same food. Probably not. But a cow with equally good digestive organs, that is so constituted that all the food shall be changed into beef instead of into cheese, will gain a good deal more than 650 lbs . in live weight.
It is an extraordinary coyv that will pro duce 600 lbs . of cheese in a year. Such a cow must necessarily eat a large amount of food and of the best quality, and the probabilities are that at the commencement of the season she is in high condition, and as thin as a shadow at the end of it. In other words, although the season may not last over eight months, the food of the whole year is used to produce the 600 lbs . of cheese, and the calf. The flesh and fat she had stored up during
the winter would all find their way to the milk-pail before the end of the summer. Mr. Sheldon's Short-horn calf weighed at six months old, 652 lbs . ; at 9 months old, 928 lbs.; at 12 months, $1,216 \mathrm{lbs}$., and at 18 months, $1,806 \mathrm{lbs}$. Of course this is an ex traordinary animal-but is also the cow that will give 600 lbs . of cheese in a year. Both have splendid digestive organs, and both unquestionably had all the food they could digest and convert into beef or cheese. Had this animal been killed at twelve months old, he would have dressed at least 800 lbs . And you must recollect that in the case of the cow the machine for converting the food into cheese is already made-and it-required at least three years feeding to get the machine in running order. But this yearling Shorthorn made nearly the whole of his own ma chine as he went along, and turned off 800 lbs. of beef.
But of course such facts as these prove nothing. They are not comparative. The main reason for supposing that a pound of cheese requires more food for its production than a pound of beef is this. Beef is derived from the blood of the animal, and so is cheese. Their origin is identical, and composition very similar. But there is far less water in cheese than there is in beef.
A first-class American cheese analyzed by Dr. Voelcker contained in one hundred parts:
Water
Butter
. 27.29
Casein.
.25.87
Milk sugar, lactic acid, and extractive matters.
Mineral matters, (Ash).
Lawes \& Gilbe give
6.21

Lawes \& Gilbe give the composition of a fat ox
 would require the most food to produce it, a
hundred hundred' pounds of cheese or a hundred pounds of beef? Take the half fat ox, (which is the condition in which most of our cattle are slaughtered), and it will be seen that the beef contains twice as much wate as the cheese. If there was no water in the cheese, and no water in the beef, the compo sition per cent would be as follows:

Cheese. Beef
Fat or Butter . . ............... 481
$\left.\begin{array}{l}\text { Vitrogenous compounds or } \\ \text { Casein. ................ }\end{array}\right\}$
ugar, lactic acid, dc. ........ 81 38
The beef contains a little more fat than the cheese, and some 3 per cent more nitrogen ous matter, but the cheese has $8 \frac{1}{2}$ per cent. sugar, etc.

Lnoking at these figures as they stand, on ${ }^{\circ}$ would say that it took about as much food to make a pound of dried beef as a pound of driad cheese. But we do not sell beef and cheese in this chemically dry condition. As ordinarily sold, the cheese contains only about half as much water as the beef. The cow that makes 600 lbs . of cheese in a year has as much fat an nitrogenous matter extracted from her blood as would make about 900 lbs. of beef. And that this is all derived from the food directly or indirectly, no sane man will question. It takes, therefore, more food to produce a pound of cheese than a pound of beef.

The same writer thinks ita mistake to sup pose "that enriching the land either by hoe ing or manuring, causes it to grow richer grass." He thinks " 2 tons of hay from two acres is worth more than 2 tons from one acre." metimes it is, and sometimes it is not. It depends on the character of the land and on the nature of the grass, Two tons of timothy from two acres of upland would be worth more than two tons of sedges, weeds, rushes, and coarse grass, from one acre of rich swampy land. So far he is right. But this does not touch the point. Take a field of good dry upland. Let half of it be enriched by thorough cultivation and manuring, and the grass on this half will be sweeter and more nutritious than on the other half. Top-dress an acre or two of pasture land with some rich well rotted manure: It will bring in finer grasses and thicken the sward, and the cows will very soon tell you which grass they like best. They will not touch the other grass as long as a bite can be obtained on the top dressed portion.

This man is hard to please. He thinks every. thing I said in the February No. is "faulty." He cannot see why high farming is any more necessary or profitable on high-priced land than on cheap land. He thinks "good farming pays the best anywhere." But we were not talking about good farming, but high farm. ing. If he had written: "My idea is that high farming pays best anywhere," he would have met the cane. And if he had thought a moment, he would have seen that this pro. position is not true.
Good farming is sometimes high farming, and sometimes not. Plowing under a crop of clover, for wheat is frequently good farming, but it is anything but high farming. Summer-fallowing is often the best and cheapest way of cleaning and enriching land, and in such a ease is guod farming, but it is never high farming. High farming would summerfallow the land and have a heavy crop grow. ing at the same time. The market gardens around New York, afford excellent examples of high farming. Read Henderson's interesting book on "Gardening for Profit," and you will get an idea of how much produce can be

## FARMER'S ADVOCATE.

raised on an acre of land. They employ a harrowed, but the seed is sownon the furrów working capital of $\$ 300$ an acre; underdrain thoroughly ; use from 50 to 100 tons of manure on each acre every year; have two, three, and four crops in succession during the season on the same land; never Iet a weed show itself; pay from $\$ 100$ to $\$ 300$ an acre rent and tàxes, and make a handsome profit besides. This is high farming. They have to pay an enormous price for the land, and they must farm high, or not farm at all. They could not afford to let their land lie idle a year, in order that they mighr summerfallow, or plow under a crop of clover. Where land is worth only $\$ 0$ an acre, we can afford to adopt a slower method of enriching it than when it is worth $\$ 500$, or even $\$ 200$ per acre.

He quotes my remark: "You can afford to pay more for manure that will double the crops on land worth $\$ 150$ per acre, than on Jand worth only $\$ 50$," and asks, "Why so? If doubling the crops on good farms is profitable, why not on poor ones equally so ?" Why not stick to the proposition? He should say, "If doubling the crops on land worth $\$ 150$ an acre, by using 400 lbs . of guano costing $\$ 20$, is profitable, why not on a farm worth only $\$ 50$ an acre?'
Uf course the figures quoted above, appear high, but you can allow for the Inflated currency of the States and profit by some of the above hints.-Ed.

Some good wheat growers in this county mow their clover the first year, for hay and for seed, and the next year pasture it till the middle of August or the first of September, and then plow it up and sow wheat, without any previous cultivation, and little, if any harrowing. They say they get better wheat in this way than if the land was plowed in June or July, and "summer-fallowed." The straw is stronger and the grain yields better. If your land is clear and in good heart, I do not see why this is not an excellent plan. Wheat requires a firm foothold, and I have often thought that we not unfrequently get the surface soil, on light land, too loose and mellow. The time to clean and mellow the land for wheat is when it is in corn, two or three years previous. The Norfolk, or Four Course System of Rotation, almost universal on the lighter soils of England is: 1st, Turnips ; 2d, Barley, saeded with clovers; 3d, clover, hay or pasture; 4th, wheat. The labor is nearly ill spent in preparing the land for the turnip crop. It is frequently plowed four times, and cultivated, harrowed and rolled repeatedly. Barley is sown as eaaly as the land can be plowed, and got into good working order. The clovers are sown and harrowed in with a light harrow, and the roller is passed over the field when the barley is an inch or so high. Wheat is sown on the clover sod immediately after it is plowed. When sown broadcast, the land is not even

## as left by the plow.

If our land was rich enough; and we treated corn as a "fallow-crop," " cultivating it until the soil was as mellow as an ash heap, we might adopt the same system. Sow the corn stubble with barley, and seed down heavily with clover. Pasture it but little, if any, in the fall, after the barley is harvested. Pasture it the next summer with sheep till the 1st of September. Plow and sow wheat at once Seed down the wheat with clover. Mow it for hay and for seed the next year. Then manure heavily and plant corn. The success of auch a rotation will depend on the thoroughness with which the corn is cultivated. Generally our barley stubbles are overrun with weeds, and for this reason we do not more frequently seed down with barley.
The best thing to do with a seeded down barley stubble infested with weeds, is to run the mowing machine over it, and shave off the stubble, weeds, etc., close to the ground. I adopted this plan last fall on my wheat stubble, on some sandy knolls, that were full of thistles. It has checked them sufficiently to enable the clover to get the start of them this spring, and I think it will smother them out. The mowing machine is not appreciated as a means of destroying weeds as fully as it should be.-American Agriculturist.

## DIDDLED, HUMBUGGED, FOOLED SWINDLED.

As the founder of the Emporium, it is necessary we should procure the best and newest varieties, and procure from the most reliable sources. Also as editor of an agricultural paper it is our duty to furnish the country with any information that we think might be of any use or profit to our readers, even without re. ceiving most fabulous prices for bringing anything before the public. Sometimes a young hand at any undertaking can be excused for a slight error. We wished to give information that might be read with interest and profit. Had seen a great advertisement of men holding position in the States, of what was called Surprise Oats, having fo long list of testimonials attached from farmers in various parts of the country. We applied for an agency for the sale of them from the originator of the oat. He had not stock sufficient to appoint agents in Canada this year, but next year would appoint us as agent. We applied to another person, who from accounts we were led to believe held an unexceptionable position, and were promised the oats, which after long delay arrived, and we were really surprised at
the most miserable, mixed, inferior sample we received-not half as good as our Emporium oats. We unfortunately had advertised them, but would only supply one person as we are certain they would not give satisfaction. We, prefer pocketing the loss ourselves. We never havo attempted to humbug our readers, nor will we ever do so willfully. We do not hold ourselves accountable for advertisements, communications, nor all extracts. Our own writings, our own knowledge, + and experience we give as faets. We do say the Surprise Oats ope not a superior variety. We received from $\mathrm{Mr} . \mathrm{H}$. Vanolinda, 1 quart in which were some ef the largest oats, we ever saw. They are entirely a new variety to us, but about their milling qualities that is all moonshine. About their yielding we cannot say. We shall be more cautious in future as to what we allow in our paper. We want to have nothing to supply our readers with but what we believe will be of advantage to them, but it is necessary we should try things ourselves.
Should you ever hear a person making any remarks against our undertaking, ask them if they have subscribed for our paper, or if they have read the paper for six months, if not they are unable to julge of its merits. Try and convince every reasonable man of the necessity and utility of our undertaking, and endeavor :o induce him to become a subscriber.

High Pricef yor Fowls.-Mr. H. M. Thomas, of Brooklin, recently purchasedt from a gentlēman in Toronto, two pairs of Brahma Pootrah Fowls, at $\$ 30$ per pair. They were imported from Limerick city, Ireland, only a few days ago, and were on exhibition at the Poultry show held in Toronto, when Mr. Thomas purchased them.- [Ext.

OS Our Brampton correspondent informs us that Mr. J. Snell of Edmonton recently solda yearling short-horn bull for $\$ 200$, and a 2 year old for $\$ 300$, and that he has one aged 17 months, weighing 1300 lbs., for which he is asking $\$ 200$.
-There is a whole sermon in the saying of the Persian: "In all thy quarrels leave open the door of reconciliation.' We should never forget it.
-Whn is the straighest man mentioned in the Bible? Jusopb-Pharaoh made a "ruler" of him.

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## FARMER'S ADVOCATE.

## SKILL VS. MUSCLE IN FARMING.

"So you won't take the agricultural paper; you don't take any newspaper at all, I believe."
"No, I don't, I can't ever get time to read a paper, so there is'nt any use to pay for one. I have all I can do to support my family without paying out my money for newspapers and spending my time reading them. I advise you to pay your money for flour and pork, and let the paper slide."
"Of course you can do as you like, I think that no man on a farm can afford to be without a reiable agricultural paper. Some men get rich by farming paper. Some men get rich by farming
whilst others get poor; the principal whilst others get poor; the principal
cause of this is that some understand cause of this is that some understand
their business and others do not. By means of this paper you can learn how successful farmers have succeeded and how unsuccessful ones have failed; you can profit by the experience of both, you can also keep posted with regard to various improvements constantly effecting tillage, this, I consider very important.
"Well, well, there's my cows in the oats, and I must get 'em out."
This conversation took place between William Smith and Peter Jones on the occasion of the former calling on the latter to try to induce him to subscribe for a paper for which Smith was forming a club. These men were at this time in about equal circumstances in regard to worldly goods. Previous industry and economy had furnished each with means enough to buy a small farm. Each had been doing business for himself about two years, and $s$, fill their success had been about equal: Being almost entirely without experience in an occupation which they had probibly chosen because they kiew nothing about it, so far neither had done so well as to excite remark still, a careful observer would notice that they hid widely divergent ideas with respect to the proper way of doing their burines. WVbilst Snitk believed that but could do much toward learning a correct theory of farming from baoks and papers Jones considered such things entirely useless, his theory being that success only oume of hard knocks and economy, and this he lived up to with scrupulous exactness.

As time passed away the difference of their opinions kept working on their surroundings, until their farm, buildings, stock, \& \&e, hardly presented a remote similarity. Jonies kept all the time hard at work, and never expended a cent uniless t) supply some manifest, bodily want Sunday was his only holiday; this he usually sperit the greater part of in bed resting himself as he expressed it. Na ture had kiadly furnished him a hardy frame, and as he was perfectly temperate in his eating and drinking his health remained almast perfect, and he, as well as
his neighbors, thought himself doing very well.

## Smith, in the mean time, had expended

 nearly all the profits of his firm in improving his stock, buying manures, getting his fences into proper order, improving his buildings, buying necessary farm machinery, and in doing a thousand and one things that appeared to him would eventually be'remuncrative In making innovations he was more ahead of his neighbors than Jones was behind them, and as he spent considerable time, as they considered to no purpose, he re ceived a smaller share of their approbation. At the expiration of sis years from the commencement of their farming expcrience Jones had a quite a snug sum at interest, and his farm lacked much of being in a bad condition. True, hid buildings were none the better for the length of time they had been in use, and the scanty repairs they had received; still, they were not so much worse than his neighbops as to attract attention His stock was of the most primalive de scription; the pigs in his pen being direct descendants of an old sow that used to root up the grass in his grand father's door yard fifty years before ; and no one could tell him anything about the pedigree of his cattle or horses. Some might think, whilst contemplating the slight. amount of knowledge illustrated by his management, that the only marvel was, how he succeeded so well as he did, when in fact, he did not succeed at all. Let bim deduct a fair price for the amount of abor performed, and the interust on his invested capital, from the profits arising herefrom, and the minus balance will ndicate not only the amount of his real profit, but that of a majority of farmers in the country, who, if they show a trifle more skill, lack much of being as industrious and economical.Smith, at this time, had not a cent off of his farm, and, although he owned some very fine stock, as yet it had protited him but very little. Most of his neightors, and Jones among them, had been very liberal in their words of advise and dis couragement; still he persevered, feeling confident that in the end he should be successful. His fine crops were just be ginning to attract :attention, but they had not yet repaid him for bringing his fields to their present high state of cultivation. As soon as his blooded stock, which had cest liim muc! time and money would increase so as to have some for sale, he hade calculated to get an extra price for them on acenunt of their blod quali ies, but in this the was mistaken His neighbors, many of who wished to buy, realized that he had very fine ani mals, and were willing to pay good prices for them as such, but, with them, Dur hams, Deyons and dunghills were the same as to blood. Smith had determined in the begmning to have the direct produce of his farm consumed upon it, and
to let what surplus he might have to dis pose of being in stock. He was so situatedia to have to depend upon the horse market, and was somewhat discouraged to have it turn out as we have stated Among the stock he wished to dispose of was a very fine two year 'old Durbam bull. Three years before to had paid the $\$ 250$ for the bull's father, besides expend ing $\$ 25$ more in getting him home ; still he considered this $\{$ good investment, and thought that some one could afford to. pay him near that for the one he had to tuin off.
He and Jones, in spite of their difference of opinion, had always been on very friendly terms, and now he concluded that if he could sell this bull to Jones for $\$ 200$, it would be an excellent bargain for both; and he determined to make a special effort to accomplish it
Going to that individuals house the next evening, he found himself and wife engaged paring apples by haind, to dry. After a few common place remarks, Smith made knnwn his business.
"That's a very fine critter," said Jones, "how much do you wan't for him?"
"About three years ago," said Si角th, "I paid $\$ 250$ for one no better, and it cost me considerable, both time and noncy, to get him home, I think this one should bring me $\$ 200$."
"Two hundred dollars!" Jones vociferated, "two hundred dollars, why man be you crazy, or do you think I'm a fool; because *you have swindled away your money at that rate is no sign that any one else will. I heard that you had been asking outlandish prices for your critters, but I never thought you'd try me on. Why I've got a pair as big and nice as this ove you want to sell, though they're four year old, and you may have 'em both for $\$ 100$.

Well, Mr. Jones, if you think my price so far out of the way, I should like to know what you think him worth."

As I told you before," said Jones," all the while busily at work on his flinty little apples, "he's a good one, and I'll give you $\$ 40$ for him.
"How much do you call your best two year old worth?
"I would'nt take a cent less then $\$ 25$ for that brindle heifer. You must bave noticed her."
"Yes, she is very good. I suppnse it has cost as much to raise her as it has the animal I wish to sell you.
"I should'nt wonder if it had; she al ways eat a heap."

Now," said Smith, "you are willing to pay me $\$ 15$ more for mine than you ask or yours; from this I conclude that I have received $\$ 15$ more for the same amount of feed than you have.

I don't know about that," and Jones quitted knife and apples and began to scratch his head. His neighbors tall evidently annojed him, but he was a man

## F'ARMER'S ADVOCAIE.

that words could mot materially discom pose ; soon he continued, "there's no usi talking, I'll give you just what I said and not a cent more; that's settled."
"But accordiag to your own showing the extra blood of my animal makes him worth more than that."
" $O$, all blood is alike. How is your apple crop this year; Mr. Smith ?"
"I had nearly all of my trees grafted four years ago, as you remember, and they don't bear very much yet; still, what I have are very fine."
"Here's more of your extra blood going without apples four years; your welcome to it."
Smith soon went home, and finally concluded to sell whatever aninals he had to dispose of, for what they were really worth as individuals, and be satisfied with the the handsome profits they would yield him. His crops increased to such an extent, that it was unnecessary to have them all consumed on the farm to keep it in condition, and what he had to dispose of was the source of a considerable income. His neighbors were soon willing to give him an extra price for the fruit from his "grafted" orchard, and his superior grains of all kinds, were always ready sale at the very highest prices.
Jones had already reached the summit of his prosperity. His increased family consumed all that he could compel his farm to produce; at times he would encroach on the amount he had so carefully hoarded. He continued to work hard as ever, and his slighly bent frame and unelastic step but too plainly indicated that he had passed that point beyond which the strongest man must fail. His mind was like an unused room, wherein all sorts of rubbish accumulates; still it contained nothing useful or agreeable to contemplate. In the future he could see but a dismal pathway, strewn with thorns, its roses he had carefully de stroyed years before.
Smith continued to prosper, and when in a few years, debts and shattered health compelled Jones to sell lout, he had the means at hand to not only buy his farm, but to fence it and to put it in proper re pairs generally.-[Ext.

## RUST IN WHEAT.

To wheat growers, scarcely any subject can be more interesting than an inquiry into the causes which ironuce that fatal blight, called Rust, in wheat. Nor could any discovery be more useful than that of a certain specific against this blight
The undersigned does not intend to write a dissertation on the many varieties of wheat; nor to suggest the best and most profitable of those varieties; nor the most valuable fertilizers; nor the best mode of cultivation; nor enter into a chemícal analysis of the constituents of this invaluable cereal. But it is only proposed to submit, briefly, to the readers of
your very valuable and popular journal, a few plain, practicalobservations on the disease in wheat, called "the Rust," and to suggest, as the undersigued believes, a certain preventive of this disense-observations and suggestion founded on an actual, and entirely successful, experiment.
It has been the experience of agriculturists that very warm, sultry, weather, foggy morningo, or frequent light rains, followed by re turns of bright sunshine, altogether, whilst the wheat is in a milky state, produce Rust. What are the influence of these several conditions of
the weather upon the stem, or stalk of the wheat, which-produce this result? It may be here remalked, that the combined effects of these fogs, warm sultry weather, and frequent rains, are to induce a rapid growth of the plant, and to render it very soft and succulent. In this state, the hot suns following immediately upon the fogs, showers, and sultry weather, suddenly contract the stem of the wheat, and split it longitudinally into numerous small fissures, all around the stem. Then the sap o the plant exudes through these fissures; the atmosphere oxidizes this sap, giving it a redish color, and this is the Rust. It necessarily follows, that the sap, beng thus arrested in its flow through the stem, thrown out upon the surface, and diverted from the head, the grain múst fail for want of nourishment.
Some years ago, having several bushels of wood ashes on hand, I determined to try an experiment, by spreading these ashgs upon my wheat. Accordingly, when the wheat was beginning to joint, and when there was a slight mist, I directed nity laborer to spread, with the hand, these ashes upon my wheat, at the rate of perhaps eight bushels to the acre. It came on to rain too hard for him to continue this labor, and he left off spreading these askes in the middle of a lind. The Rust was general and fatal that year in my neighborhood, and my wheat, where the ashes had not fallen, as well as the wheat in the neighborhood, was so much injured ly this disease, as to be hardly worth saving ; but I remarked, with surprise and pleasure, that wherever the ashes had fallen upon the wheat, even up to the middle of the land, where the labor was discontinued my wheat was splendid, the stems being strong vigorous, and of a bright color, and taller by several inches than where the ashes had no been sown, whilst the heads were heavy and the grain perfect. Here, then, beyond question was an experiment perfectly satisfactory-in valuable, indeed, in its results.
Whw, as to the effects of ashes upon wheat they have, like Shakspeare's "sherry sack," a "three fold operation:

1. The ashes operate as a manure upon the wheat, even in the limited quantity of eight bushels per acre.
2. They pusih the wheat forward several days, and in time to escape the hot, sultry days which often prevail about the time of the "heading out" of the wheat ; and
$\cdot 3$..They strengthen the stem, giving it subance and solidity
I may add one or two more properties of the
ashes, beyond the "sherry sack": they afford just that kind of pabulum, or food, which is best far the development and perfection of the grain, and will, in my opinion, also prevent the ravages of the fly in wheat. I would here venture the remark, that whoever once tries this experiment will thereafter spread his wood ashes upon his wheat, as above indicated ; and, in so doing, he will effectually guard against and prevent "the Rust" in his wheat. C.S. L. -Rural Gentleman.
Some of our readers might try this plan, you can try it on a small scale, and if you find it of advantage report to us. It costs but ittle to try many new things, and it is by trying that we improve our crops. You all say try it yourself and let us know, we may do so, but we are trying so many new things, that for the lack of time to pay proper attention to many, we wish and ask for a co-operation of the enterprising to assist us, and we will assist you.

## CANADIAN CHEESE AND BUTTEER

Mr. S. P. Smith writes to the Sherbrook Gazette from England, that the prospect of a good market for cheese are far better than at this time last year. Good American and Canadian cheese is now bringing 58 s to 60 s per cwt., and some few lots have been sold as high as 68 s to 70 s sterling. It is the gen eral opinion that there will be little or no old cheese in the market by the 15th June All complain of Canadian butter; it ts badly made, badly packed, and, las't but not least. it is put into bad tubs.-Evening Telegraph
Farmers and Farmers' wives, let us elevate our name in the British market and command higher price for our produce. The English butter is quoted at 128s per hundred lbs. in kegs; Canadian butter only 80s. Ladies, we attach less blame to you, than to your liege lords, and take the same on our own shoulders. Butter-making is an important process. Much depends on the pasturage and „treatment of cows. More depends on a proper course, proper place and proper packing. The factory system in butter making is coming in vogue in the States and will be here. By that means a much higher price may be realized

## Tomlinson's Butter Powder.

This Powder is descrving of a trial. We understand it is muc̀h used in England. It is our impression that any dairywoman using it one season, would not be willing to do without it, as all impurities of flavor are removed, and quantity increased by its use, and the butter commands a higher price. It also saves' much labor. Those that have once ried it, come for more of it. Ladies we hope some of you will gain these six prizes of it. We believe you will after a fair trial,conside hhat you have a prize that will in future be of much profit to you. Try and get a pack age or some other prize.


## EARLY ROSE POTATO.

We herewith present our readers with the representation of the Early Rose Potato, This stock of potatoes is owned by Mr. W Best of Utica, and are claimed to be the earliest variety grown. They were raised from a seedling from the Garnett Chillies, and the price of them the last year has been $\$ 3$ per lb. We procured a few pounds of them and divided them into cuttings, and sold them at fifty cents for three cuttings. They cost us a little over $\$ 3$ per pound Canada-money, delivered to us. They are a very nice-looking potato, the eyes but little indented, but as yet we have not afforded the expense of tasting one-the ensuing year we hope to be able to speak from experience, and give the experience of those gentlemen named below. It shows you that there are a few among our subscribers that are as anxious as we are to procure the best, although the price would frighten 999 out of every 1000 of our farmers. They could be procured at no other place at less than $\$ 3$ per lb. or $\$ 80$ per bush.
H. M. Thomas, Brooklyn, A. G. Machell, King, Mrs. Scanlan, London, R. Saul, Strathroy, Isaac Freeman, Rodnéy, J. D. Campbell, Molesworth, M.t McKenzie, Lakeside, R. W. Dempsey, Albury," J. McCordie, Jura, J. Lumble, Holt.
Thus we have an opportunity of having the opinion of our own countrymen about them. We have the agency of Canada for the sale of them. Next season, no doubt; bit they may be hid at much lower figures, still it take ${ }^{\mathrm{s}}$ many years to supply the country with a sufficiency of any new kind of seed, and those gentlemen that first procure them, are able to command high prices for what they raise. It cannot be expected that persons that in troduce such things, at such an enormeus price, will sell them at a common figure, when they will have them to sell by the bushel. We are raising several kinds of potatoes on our farm from different parts of Canada, from Auştralia, California; and the Eastern States, about which we have heard
great accounts, but twe will ket you know about them in the proper season. It is not our intention willingly or knowingly to allow anything to appear in our paper that would be against the interests of our country or our supporters. Still, we were misled on the Surprise and Norway oat humbug. We were so surprised and mortified as to return the money to 23 applicants, who had sent in sums varying from one dollar to ten. We prefer loosing the money durselyes than the tarnish. ing of our reputation, by supplying such rubbish as was sent to us.

## FEED MILL.

In our advertising columns will be found a representation of Mr. Summers' Feed Chopper. We have not yet seen this mill in operation, but accounts we are in possession of from reliable Canadians, we think it a highly useful and necessary implement on good farms where stock is properly kept. It is an implement that has long been needed in the country. The prineipal on which it works we consider superior to any we have yet seen. The grinding is all done by the instantaneous.touch of the rollers-no second tauch is applied unless the grain is required to be made fine as flour. The great advantage of this is that it is not heated as in other mills. The meal is consequently better and will keep without spoiling. The principal of using chopped feed in preference to whole grain, is well known to every reading or intelligent farmer. This mill will do its best work when grinding at the rate of 40 bbls. per hour, althoughif only cracking is required it is said to be capable of chopping 80 bush els. It requires two span of horses to drive it. We should be just as well satisfied if it only chopped 10 bushels per hour, but such is the construction of the mill, that it requires to be run at a high rate of speed, and then it does its work properly and quickly. We think from the superiority of the feed choppod by it, tbat it might with advantage be fitted up in grist mills, where ohopping is
done, but large farmers will find it much to their advantage to secure one for themselves We are appointed as agent for the sale of this mill, and will have one set in operation, that we may be able to speak of its merits or demerits more particularly. The patentee now authorizes us to let any good farmer take one and try it, and if he is not satisfied with it to return it. He informs us that he never, has had a mill returned, that' they are universallyliked. We have a letter from one farmer who states that he has saved 300 bushels of grain this last season by the use of it. 'From others we have certificates that their stock has done much better on meal chopped by this mill, than by the grain as usually chopped at grist mills. The manufacturer informs us that he has not had a single complaint about one of them. The price of the mill is $\$ 45$. It may be seen in this city.

## CULTURE OF FIELD PEAS.

We have for many years advocated the more extensive cultivation of peas and beans, as a means of enriching the land. They contain twice as much nitrogen as whent and corn, and consequently make rich manure. A crop of peas of forty bushels per acre contains in sced and straw about 120 pounds of nitrogen, while a crop of wheat of forty bushels per acre, in seed and straw (calculating the straw to weigh as much as the grain, which, we think, is about the average in this climate,) contains about 57 pounds of nitrogen, Peas, Beans and Clover, are all leguminous plants (i. e., belong to the pea family) and all contain a large proportion of nitrogen. When consumed on the farm they afford rich manure. The manure from a bushel of peas is worth as much again as the manure from a bushel of corn.
Where peas can be grown and consumed on the farm, therefore, they are eminently a renovating crop. On the other hand, if sold, they remove more fertilizing elements from the farm than a crop of wheat or barley. Peas do wellon sod land, and are generally grown as a crop to precede winter wheat: On an old tough, Timothy sod this is not a good rotation. The peas may do well, but the sod is seldom sufficiently rotted to produce good wheat. On a two or three year old clover sod the practice of soming peas to be followed by wheat is a good one, provided the land is rich enough, or can be manured for the wheat. If the peas were drilled inl rotrs a foot apart, and we had $\mathfrak{r}$ good horse hot, that would hoo ten or twelve tows at once there can be no doubt that peas might be extensively grown on wheat farms, to great advantage-provided always that they are fed out and not sold. If not hoed, it is very important to secure a large growth of vines, so that they may
smother the weeds. We have had wheat after a heavy crop of peas, that was as clean as if the land had been well summer fallowed, and far cleaner than it fi equently is after a poor, neglected summerfallow. But on poor, dirty land, a crop of peas sown rather late in a wet. spring, followed in a week or two by such a drouth as we had last season, is about the worst preparation for wheat that can be adopted. The fact is, all our renovating eropes, such as peas, beans, clover turnips, and other roots, need cleàn, rich land, and the best of culture. Occasionally, in a wet season, a large crop is obtained on poor, badly cultivated land, but this is the exception. Generally such treatment results in half a crop of peas and a fall crop of weeds-requiring more labor to harvest them and leaving the land foul. It is best to sow peas with a drill, but if this cannot be done, take great pains in plowing the land, and sow the peas on the furrows without previous harrowing. The seed will roll into the hollows between the furrows, and the herrow passed lenothwise of the furrows, will cover then. As the object is to get a heavy, smothering crop, it is well to a heavy, smothering crop, it is well to seed thick, say three bushels per acre, or
if large peas, three and a half. The small Canada creeper is the kind usually raised in Western New York. Unfor tunnately the pea bug attacks our 'peas and renders them unsaleable. They can only be raieed for the purpose of feeding out on the farm. There is nothing better for hogs, especially in connegtion with corn. If fed out by the middle of November the bugs do comparatively little damage. Many farmers feed them to pigs, straw and all without threshing, This will answer very well while the crop is green, and the pigs will eat nearly all the vines, but when the crop is matured it is a wasteful and slovenly practice. If the peas are properly cured, the straw, the peas are properiy cores excellent especially if a a:ge crop, makes excellent
fodder for sheep, and should be carefully fodder for sheep, and Anerivan Agriculturist.

## RECEIPTS OF EDITORIAL TABLE

Since our last number was issued we have'received from H. C. Thompson, Secretary of the Ontario Agricultural Association, the first volume of the Canadian Herd Book. The book is well got up-the binding,paper and engravings are good. It is a credit to our country, and a book that has long been wanted. Every breeder of Durhams should have one at command, as we know of more persons than one that have purchased stock for thorough-bred that have been deceived. The book is an actual necessity for breeders to know what stock really are pure bred or not. The engra vinge are well executed, and if they have
a fault it is because they are too well done, Each Agricultural Society should
possess one. The price of the book is $\$ 4$, and even that price we do not believe they will pay for the expense of getting them up. We know not if they are all disposed of, or if they are stereotyped. Such books are not generally kept on hand, and those requiring them should secure them at once.
R. H. Allen \& Co., of New York, have sent us a bandsome present of a fine col lection of American and European vegetable and flower seeds of choice varieties. They have also sent us their illustrated catalogue, containing nearly 300 pages, and the illustrations of plants, shrubs, vegetables, implements, \&c. The price of the catalogue is $\$ 1$. Address R. H Allen \& Co., box 357, New York.
From Mr. James Keefer, of London, we have received an apple gatherer, by the use of which a person may select any apple on any limb of a trea, and present it uninjured to your friend. They may be very handy for amateurs, and for use in choice orchards among choice fruit We believe they may be procured of Mr. Keefer, of London, or of Mr. Keefer, of Thorold. Price, $\$ 1$.
From Mr. W. Eagleson, of Cobourg we have received a bag of peach blow potatoes. He speaks of them in high terms. We believe we were the first to import those potatoes from England, but they grew too watery with us. We know them to be a most excellent variety formerly, and they may have answered better lately. "We will try them again.

From Mr. R. Saul, of Strathroy, we eceived a packet of vegetable seed that we required.
Our exchange papers have béen so ntmerous, and we have been so extremely busy during the seed time that we have not attended to, or even opened half of them. We hope to pay more attention to them in future amonge the new list the most conspicuous is the "Evening Telegraph," published in Toronto. We are highly pleased with many things we see in it, and when we can spare a moment or two, we open ore of them. There is evidently considerable talent and spirit evinced in its columns, and we believe if they coutinue its management as it is commenced they will reach as high, or higber, circulation than any other paper
in Ontario. To all local exchanges we will continue to send our paper to ygu without receiving yours regularly Send now and then a paper if there should be any subject you wish to call our attention to mark it, or better place it in an envelope. We receive so many that we have not time to attend to them all. Send particularly when you make remarks about our undertaking or our paper. When wish all our agricultural exchanges to come as regularly as heretofore. Some days we have received upwards of ten papers, and between twenty and thirty lettersisand assyet we. have to attend to every thing ourselves in the singular tense. We do not set up the type, nor direct the whole, and sometimes have a little assistance to enter the subscribers names in our book, but the different departments of this paper, the superintendence of the farm, the stock, the seed department, the machinery, and the bringing forward and establishing of the Agricultural Emporium, which every person must see is perhaps the most beneficial and useful plans ever brought forward in Canada, and an establishment that must pay "a large dividend to the shareholders or proprietors, and a thousand times larger profit to the Dominion, and all knows it requires capital at first to commence such. Still financing and planning has as yet devolved on the individual that first originated the plan.
We received a communication from St. Mary's. Although intended for good, we cannot insert communications unless we know the writer's name. It is not necessary we should publish the name. We have a Toronto editor in a straighc box, for he can't get out of the scrape by not knowing, or pretending not to know the writer's name.

We return thank to you all for your good wishes and good intentions, and hope to merit a continuation of your good wishes.
Among our numerous occupations we may have unintentionally slighted or passed over some communication, or child's answer. W. L., of P. we know for one, that we have not attended to as quick as we ought to have done. However, we will endeavor to put these things to rights as well as we can. - Give us time, and assist us, and we will assist you. We return thanks to several Post Masters that have interested themselves in our behalf.
-Enjoy the glory of the sun, and not put out your eyes by trying to count the spots upon bis face.


## RURAL ARCHITECTURE.

It is our intention to furnish you occasion. ally with dufferent designs of buildings. We now give you the above as a sample of a neat and cheap small house. We intend to furnish some of greater pretensions and of outbuildings, but the world was not made in a day.

## FORMATION AND MANAGEMENT OF THE SOIL.

The soil, which has been cultivated by countless generations of men, did not come spontaneously into a rich and mellow condi tion of fertility.
Millions of years before animal life was imprinted on its bosom, geologial science teaches us our earth was one vast ball of fire revolving through the heavens. In process of time, its glowing crust began to cool beneath the influence of atmospheric vapor. That crust thickened as the fire gradually re treated towards the centre, until the long pent-up forces burst through their vast confines, scattering the crust in millions of fragments, and casting the earth's form into something of its present agreeable diversity of hills and valleys, mountains and plains. These upheavals of matter, which were forged from the heat of the internal furnace, sueceeded at near or remote intervals, bursting thoough or overlapping the former with a new and different deposit. In this way, science accounts for the different strata which now compose the earth. The entire surface of the earth must then have been fragmentary rock, on which no animal life could subsist. The new elements of air and water were now brought to bear upon this hardened matter, when the rock cracked and flaked into pieces and the stones were dissolved into infinitesimal particles. That crumbling and dissolving process laid the foundation of our soil, and began to develop the vegetable matter of the primeval world.
Then came the vast period of flood, swelling gradually up from the deep abyss of waters over the hills, till, in process of time, it swept the peaks of the loftiest mountains. Taking a course from east to west, with an irresistable momentum, whirling great rocks along its track, and rounding thens to boulders or
grinding them to dust, this flood bore upon its bosom, the rank vegetable accamulation of an in definite period of growth, and deposited the mars in those numerous localities, where the agency of fire converted it into fuel for future necessity: Th same great carrier must have
produced an intermingling of produced an intermingling of
the various elements which com pose the soil, thus mixing to gether and equalizing the whole with a rich fertility. We find that the same mixing of differ ent soils to day has the same influence on the growing crop that the criginal soil possessed
When those waters subsided into the great oourses prepared for them, the earth was developed into a fit abode for man.
The great work of creation has been pro gressing, is now going on, and will continue to go on while the elements endure. Elevation and depression occur in many portions of the earth's surface continuously. The elements of air, water and frost; are rending and dissolving the mountain ridges of stone, and thus bringing into action the material of future forests.
The same great chemical changes are taking place in the soil, and wherever the conditions are most favoryble, there the changes are the most manifest and rapid. The earth has been cropped by the human and animal creation for some six thoysand years, and so prodigal have they been of the great gift of nature that we find, after the lapse of ages, many portions of the earth have become exhausted of its original fertility. Nor has the civiliza tion attendant upon modern nations been instrumental in preserving the former wealth of the soil, as the impoverished condition of whole sections of abandoned land amon Christian emigrants abundantly proves.
Some of the old nations of the East-the hildren of the Sun-who-have occupied the same soil from primeval time, manage to re tain the soil in its former fertility, though the population is more dense than any othe portion of the earth. Nothing less than a thoreugh realization of the perpetual wants of a cultivated soil, has enabled the Chinese to multiply and maintain the population of that great empire. In agriculture, as in some other things, Christian lands may well bor fow from the Pagans.
These lands, all through old and well-known sections, were ònce wonderfully productive in grass and grain. Many farmers who now connect us with a former generation, tell us what quantities of grain have been grown and sold at one dollar a bushel, where the carth
will not now yield a will not now yield, a paying erop So, too where the pastures nich in phosphates; but grasses, two only canted upon lowant Then orchards planted out in the connee. field, flourished without culture the common
abundant crops of fair fruit annually. $W_{\theta}$ see some of those orchards to-day involved in the same apparent ruin of the soil. Hence men, finding that the process of ever taking and never giving back anything to the crop. ped field, has been one of exhaustion and ruin, turn their attention to virgin lands, or abandon the soil for the shop, and the marts of city traffic.
But are these long cultivated acres really exhausted? Or do the same elements which endered them once so productive still lie atent in the soil?
We shall assume the position that the soil is not exhausted. True, its mechanical condition may be such as to resist the operation of the fertilizing forces of nature. At best, only six inches of the surface has been brought into use, and so much only of the organic and inorganic elements have been put under contribution to man. The granite, which has been subject to the dissolving power of long centuries, is still pregnant with potash. The red sand and the limestone retain the choice stores of future fertility. The dissevered particlestof sand, which make up the arid plain, are ready to be united with the accessable deposits of carbon and lime.
Through all the long past, the rich deposits of the primitive ages have been locked up beyond the reach of plow and hoe, or roots of vegetation. Its mechanical condition utterly precludes the circulation of atmos: pheric gasses through its pores, and the dews and rain are unable to penetrate it with arbon and ammonia.
That surface soil is no longer productive, by reason of the exhaustion of potash, soda sulphuric acid, phosphoric acid, carbon, \&c The sand, clay, and oxide of iron, which always remain, may be rendered once more produc tive by the application of a small quantity of those constituents which analysis reveals in the natural plant.
But a restoration of these fertilizing ingre lients to the surface, is not enough. We need to enter upon the practice of a more thorough system of cultivation. This wide spread and too general practice of the farming community, of treading the time-beaten course of past generations, with little know. ledge of the wants of the soil, and running the land with a single crop, year in and year out, is calculated to impoverish the country and bring the most honorable pursuit of man to disrepule. Many frumers hire help to grow crops on poor land, which can hardly yield enough to pay expenses. Diffusing their labor over a large field instead of confining it to a few manured and well-cultivated acres, the farm is all the time growing poore ${ }_{r}$ and the labor consumes the profits. The next thing is to abondon the homestead and go to the poor hotwe or eni is rate. Another

## FARMER'S ADVOCATE.

at once proceed to change the mechanical condition of the soil. Seeing that the Creator has constituted the atmosphere a common carrier of ammonia, carbonic acid, oxygen, water, and the like constituents of vegetable growth, they give the soil such a preparation as will secure the absorbtion of such manurial properties. The instance of the man who bought a plain, on which no crop could be made to grow for years, and who, by simply ploughing that land thoroughly in the dews and rains, till it yielded good crops, is a case in proof of the wisdom of this class. A deep ening of the soil to the extent of eighteen inches or two feet, the bringing to the surface gradually a portion of the hard subsoil, where it will be subjected to the dissolvipg and enriching influence of frost and heat, air and rain, is a method of rendering land wonder fully productive. On Croton Point, a nairow neck of land that reaches far out into the waters of the Hudson, one of these enlightened farmers has constructed a plow which pene trates the earth two feet in depth, making it as mellow as a garden. It is on such land he grows the best grapes, the fairest fruits, the largest vegetables, and the most paying crops. Others have done the same thing, both in that vicinity and in other places. If it pays them, it will equally remunerate others. $\rightarrow$ Country Gentleman.

## CuMmunications.

## To Elitor of Farmer's Advocate

## GRAVEL WALLS

Dear Sir-A correspondent in the A pril No. of your very excellent paper, asks for informa tion as to the value of gravel walls forfounda tions and underground apartments, and as consider this a subject of general importance in view of the high price of bricks and lumber, I propose to offer a few remarks thereon.

Mr. O.S. Fowler, the celebrated American phrenologist, built an octagon house at Fishkill, N.Y., a number of years ago, four stories and a basement, entirely of gravel and lime, and after several years claims that it is better and stronger than when first built.
In Janesville, Wis., there are many houses built on this plan, which have stood the test of years and so far as I heard, improve with age, becoming in time, as hard as stone itsesed.

Mr. Fowler claims that walls made in this manner are far ahead of brick, stone, or wood, is easier built, cheaper, more durable, not liable to decay, warmer in winter, cooler in summer, dryer, free from vermin, and within the reach of every man who has a desire to build.

As to the proper proportions, opinions vary. But onc bushel of unslacked lime to
about twenty bushels of sand, course gravel and stones, is what has been used by various parties who have built after this manner. If there is much fine sand, more lime will be required, if more gravel and stone less lime The thickness of the wall would depend upon circumstances, but should not be less than eleven or twelve inches-more according to size and height.
If mixed with water lime, faced with one row of brick on the outside, to guard against frost, this material would be likely to answer well for the foundations of houses, or for any of the purposes about which your correspon dent desires information.
In roofing over these gravel walls, it is better to have the eaves projecting at least a foot, as this carries the water clear of th lower portion, where they are most. liable to take injury from being wet, until, at least, they are sufficiently hardened to resist the action pf water. "Nature's building material,' gravel and this plan of building was generally elieve if this plan of buiding was generall nown, it would be adopted by mand or who live annot houses, paying in a few years, a rent cost of building on this econom cal plan.

## Yours truly,

GRAVEL.
London, May 18, 1868.

## the Farmer's Adrocate.

## CULTIVATING FALL WHEAT

Mr. Editor-As you ask for communications and I approve of your undertaking, and would be wishing to assist your paper $n$ any way I will give you my mode of cultivaning Wheat, which may be of my land well with your pasture wheat land till haying, lover, pas manure on it as soon as haying is done, then plow my land deep, and ing is done, then plon it well as grass begins to how itself,' I cultivate it; at seeding, I sow hy hand, cultivate twice, then harrow. I consider this the most advantageous way in farming. By this means I have the pasturage and plow but once. Some may condemn this mode but my crops have proved satisfactory ince I adopted this method. For the past three years, I have taken the prize for my wheat, at both the County show and seed fair. Should you consider this worth inserting use it, if not burn it.
Waterloo, Ont., May 14th.
To the Editor of the Farmer's Advocate.

## HINTS TO NEW SETTLERS

For persons commencing in the woods with some capital, and having team.s and men to get on with their work, it is a good plan to plough once at least before seeding down, as it breaks a good many roots, and destroys a great many small underbrush and stumps, which makes it easier to mow, and rake your hay at the time of seeding. It is also a good plan to roll your ground. For this you can cut a nice straight log, and make a roller short enough that it can be got through among the stumps without trouble. Take
your seed more sure to grew. I would advise any person intending to purchase a farm, to buy a wild or unimproved lot, provided he can get a good one, because you can buy a wild lot and clear it for about farm same money that you will buy a cleared farm, and then you have the land new and goo. You are sure of good crops and if it gets and by the way I have seen men take a very and by the way I have seen men on their farms, good plan to introduce weeds on the they will yeave the logs and trees on the road allowance, loave the side of their farm, and when they burn their fallow the fire kills the trees and leaves it to breed burs and thistles! Now, to all who are commencing on a new place I I would say clear up the road as you clear your farm, and seed it with grass, and by so doing you forestall the weeds, besides it affords pasture for any young cattle you mey have running out. The man who clears the noad is the gainer over his more mean and niggardly neighbor, who thinks if he clears the road to the centre of the line he must have his fence there for five or six years, and then is not pleased if he has to move it.

## To the Editor of the Farmer's Advocate.

## RAISING CALVES.

Mr. Editor-As you are asking for communications, I consider this may be of some use to your readers. I raised a calf last summer, by allowing it to suck a cow ; my neighbor raised one by feeding it on meal. The two calves at first could not be distinguished apart at 20 yards distant. My neighbor fed two quarts of meal 'paly. Fee meal was chopped in Dumm is Mill, which, by the way, is altogether feed best mode of having grain chopped choped is the stock mill pt never heats or turns sour The gif that was fed on chopped feed, stood the winter better than the other.

Vaughan, Unt.
SAMUEL SMITH,

## THE MAMMOTH SQUASH

To raise this squash successfully, the seed should be planted on very rich soil, probably the kest way would be to dig a hole three feet broad, and three feet deep, and fill with stable manure, making the hill on this with good loamy soil six or eight inches deep, planting two or more seeds. When the plants are up a week, or the but the strongest, keeping decaying of the as the hill sinks dow in has to the manure. Wen in length or six branches and the fruit form on the leading feet, letting the fry grow a very large squash vine, if you After the frs lothers must be removed, and in diamer vine should be kept pinched the leading uive feet beyond the squash. Rodney.

I have a new kind of potato, and do not know the name, perhaps you could tell me by my discription. The color is white, grow very much like the kidney in shape, only full and round at the ends; three weeks earlier than the kidneys; good to use at any
time of the year ; when cooked they are time of the year; when cookcd rot, great yielders, and grow with small vines.-J. F.

## FARMER'SADVOCATE.

## To the Editor of the Farmer's Advocate <br> KIND WORDS.

Mr. Weld-Dear Sir-I have watched with profound interest, to see what would be the result of your unexampled exertions in the cause of agriculture. The farmers of Canada owe you a debt of gratitude, which, I am afraid, they will be slow to repay. I, for one, have had it on my mind a long time to write you my approval of your proceedings. Your paper is just the one the farmers of Canada need, and I believe will in a little time supercede every other, notwithstanding the assistance which they may receive from the public purse. The Agricultural Emporium may, if properly conducted and supported, be of incalculable benefit to the agriculturists of Canada, and is deserving of universal support: I should be glad to aid in its support if you will only inform me how to do it. I send you herewith a paper of Mammoth-Pumpkin or Kentucky Squasb, which I consider worthy of notice. You can dispose of them as you think proper. I have raised them several years. They took the first prize at the last exhibition in London, and also the first prize at every county exhibition in West Middlesex. Last year was not a very good season for them, my largest weighed 96 lbs . they have reached 268 lbs.

## Yours truly,

Richard Saul
Strathroy, April 1st. 1868.
-It has been beautifully said that"the veil which covers the face of futurity is woven by the hand of mercy."
To the Edito of the Farmer's Advocate

## ARTIFICIAL MANURE.

Mr. Editor $-\overline{\text { Dear Sir-Believing you to }}$ take a very great pleasure and interest in the welfare of agriculture, I therefore beg the privilege of a space in your valuable paper, for the purpose of making a few remarks, and giving your readers the resulls of some experiments with attificial manure. My coniection with agricul lural pursuits commenced in childhood, and has engaged my attention to the present time, a period of over thirty-five years, having had in addition he management of a large manure business for the last fonr years. My first trial commenced with guano, which cost me seventy dollars per ton, and was used for raising turnips at 5 cwt per acre. The crop a fair one, but the crop raised after was a poor affair taking into consideration he outlay, so I determined to try Superphosphate and Guano mixed together, with much the same results as former trials. The next result was made with Jonss, having beard them aproben very highly of. The first lut was brik $\mathbf{n}$ wih a large
hammerion an olu anvil, and cifcouse some were For the Farmer's Advocate
not broken very small, and they were used directly, and experience taught me in that state they were not quick enough for turnips, and they were a partial failure. My next plan was od dissolve them with sulphuric acid, knowing but little of its properties, I used it a few dass after making, and the consequence of my ignorance was the destruction of all the seed, and the trouble of sowing again, but I had a first rate crop and gained a little valuable experi: nce into the bargain. I fullowed this plan for some three years and thought it could not be beat, but having a book put into my hands by a friend; on Agricultural Chemistry, that advocated the use of the bone, but managed in a different way to what I had done. The bones were to be ground to powder, after which they were to be mixed up with urine from the cattle tank, just in the same way you would mix soft mortar, and put in a dry place to be allowed time to ferment and decompose. I would prefer to let them lay six months turning them a few times, and mixing as above. Of course you would not do it so as to have it wet when you wanted to sowit. I must tell you by the way, that my hammer system was now thrown aside, and a bone mill to supply its place, having a water-power threshing-machine on the farm, which now worked the both, my former experiments had by this time been developed, and my first bone trial which gave me anything but satisfaction in the first crop, proved in aftergrain and grass crops, the best of any of my former rials, the grain being. much heavier and finer. My next difficulty was how to get so small a porion evenly over the land when used for grain. reed not tell you the trials and disappointments experienced in the way of getting ra Drill to answer the purpose. Suffice it to say after many alterations, the desired end was accomplished The Drill would sow grain alone, or graii and bonc-dust togethor, and grass seed at the same time from a separate secd box. It would also sow Turnips, using the grain-box for manure, and the Grass seed box for the seed- This answered well as the scetl receired the full benefit of the manure.
My object in writing this is to try to induce some of your practiẹal farmers to join together say six of them, and get a Bone Mill and manufacture the manure themselves. There are large quantibies of Bones laying about and plenty bofs in your towns and villages to gather them, if they could sell thein to pay for the trouble. There is also some valuable refuse from your Woollen Manufactories, Tan Yards and Curriers Shops o make Superphosphate. I may state that the mill can be worked by horses in the winter, when other work on the farm is not pressing, the mill will also chop all the feed required for catle, hereby saving the expense and trouble of taking o the Grist Mill. Should nny of your readers determine to have a mill while I am here, not nowing how long I may remain, I shall be not happy to give them the plan of constructing i, ule the way to make the phosphate.
If agreeable, in your next issue, I will give you ome nccount of the value of Bones in Efgland nd a few of the uses they aro put to, libe wibe bat phosphates are made from.

Rednorsville, April 23d, 1868.
Mr. Ediror.-As you have made some very urgent requests to the readers of the Farmer's Advocate to write something, I begin to think you mean it, and I bave come to the conclusion that you are our best friend, and have our interests at hearl, so I venture for the first time to take my pen with confidence feeling that my efforts will not be subject to the scrutiny of some city editor, but the farmer's friend who will cgrrect and revise, and if unworthy, not to give It publication. How I raised water melons in three months. -The land was prepared in the fall, manured upon the surface with well-rotted manure. I planted them thick in hills, three or four feet apart, and when the third leaf is out thinned to three or four plants. The ground should be well stirred when dry.
How I raised early Potatoes.-I sprout my potatoes in the house. I put carth in a box, and keep the seed damp until sprouted. Plant in raised hills with a litlle well rotted manure.
Would you be kind enough Mr. Editor, to incorn in the hill.
L. A.

## To the Editor of the Farmer's Advocate.

## EARNESTNESS.

As Isee in the Farmer's Advocate that there is an offer of a prize made to any one who will write an article of use and importance to the farmer, or the best original, article on any topic of importance to the country. Well, I dont pretend to think that I shall have any chance, but I have beeny particularly interested in the Advocate since I segen if in my neighbor's house, and as we live back in the hush, and are in a great degree deprived of every advantage of instructing our children in the very imporiant branch of farming, such instruction we will be able I feel sure o find in the Adrocate.
I am a mother, and am interested in the welfare of my chilitren, as they will mostt probably all be farmers. I give the tollowing receipts, as they may be found well worthy of a trial.
It is of importance to the lired farmer when all the toil of the day is over, and he is so "jifed and full of pain, sometimes in the head, from the effegis of the sun and fatigue of body, to know of a soorhing balm whereby he can sleep sound all night. He can do this by filling a stpall bag wih hops, and placing it under his head every night. Let this be his pillow, and I am sure of his life and health being prolonged. And again, if he will drink half a cup of hop tea every night, he will do better.
A Sure Cure for Erestpelas.-When in the ical use green copperas water on a cloth. Keep he cloth wet. It is the best cure in the woild, as he writer has proved it.
For Inflamation on the Liver. - Take fifleen drops of laidanum at intervals, till the pain leaves. This has becn a secret given to me by a surgeon, but as it may be of service to many, and has heen to me, I give it freely.

Mis. P. MATTHEWS,

[^0]FARMER'S ADVOCATE.

## zalouth's detpartment.

## CURIOUS DAIRYMEN AND THEIR COWS.

I have no doubt, but that many of our litthe folks will open their eyes with surprise, and wreath their faces into strange expres. sions of doubt, when I tell them that the curious dairymen, of which I am going to speak are ints.
2. Yet, strange as it may appear, these busy little insects áre often the owners and keepers of whole herds of little cows. If you will go out any of these fine spring-days, after the leaves come out, and break off a little twig from the rose bush in the garden, you will have a good opportunity to see a flock of ant-cows.
3. These are what we may call wild cattle, however, as they are not owned or cared for particularly by any colony, nor individual ant but roam at will in immense herds, over what is to them a great, green field, but to you and me is only a leaf !
4. They are, of course, very small, appearin to the naked eye only as little, shapeless specks, but with the aid of a microscope they become more interesting. Their bodies are short and oval; their heads, quite small in proportion to the body, but ornamented with two owlish looking eyes, and a long nose or beak, which they use to pierce into the leaf, or stem, upon which they herd together, and through which they suck up the sap. Their legs are long and slender, and upon the top of the body near the hinder part, are two little tubes or knobs, from which come almost constantly, tiny drops of sweet honey-like substance ; and it is for this that they stand in such high favor with the ants.
5. If you will go out any warm, pleasant day, you may observe on the stems of your rose-bush, a number of gaunt, hungry-looking ants, slim and seedy enough to be shirkers from their toiling brethren below them, which they no doubt are, crawling along to the leaves, where these Sapsuckers are, and feast ing their stomachs on this sweet honey-dew, after which they descend again so full and plòmp, that they look like aldermen, compared with the slender comrades that they meet.
6. These little insects, which fearned men have named Aphides, do not seem to be disturbed in the least by the ants, butlive with them on the pleasantest sort of terms, and the ants, although very quick to fall upon and destroy any other insect weaker than themselves, treat these little Aphides with the greatest tenderness, often caressing them and protecting them from danger.
7. But another family of Aphides, or Ant cows of which I wish to speak, are those which seem to have become domesticated
with the ants, and live with them in the ground, deriving their nourishment from the roots of plants. These are very much the same in shape and appearance as those found upon the leaves and twigs, except that they are nearly white and much more delicate looking, and what we may call real dairies, tamed and trained in the service of their masters. What is peculiarly funny, however, is that the cows are not as large as their owners, and if by any accident the nests of these ants are disturbed, they carefully take their cows that have fallen from the roots upon which they were feeding, and carry them in their jaws deep into the racesses of their habitations.
8. These ants give the same care and attention to their tiny herds, as they do to their own offspring. And when the roots upon which they feed become exhausted, they have been known to change them to more fruitful pastures, and in return these littlé Aphides furnish an abundance of sweet nütriment, upon which the ants and their young live almost entirely. No wonder then_that they are so careful and so attentive
9. Now, don't you think that these are really curious dairymen, and are not their cows wonderfui little creatures? Let us not despise little things, but always keep open eyes and ears, so that we may see and learn from these little common thinge, which we are so apt to scorn as we trample them under foot. Jnole Charies.

## FOR THE BOYS.

Two farmers met, each having a drove of sheep. One said to the other, give me one of your sheep, and I will have as many as you. No said the other, give me one of yours and I will have as many as you. How many had each?

## ANAGRAM.

Mock yapwe relveart adn lekas hyt rapcingh trihts,
Nad diver yawa luld race,
Ohut deents ont chraob hyt teltil surep, Orf I ma fere sa rai,

Ym ecruso si no hot tumonnia dies, Ym escron si ot het ase ; Neth nikrd litl outh tar defistias, $O$ kindr fro I ma fere.

## SOLUTION TO ANAGRAM ON PAGE 75

Oh friendship, flower of reflex hue 'Po earthly handề so seldom given
Thy native soil is heaven.
C M. E. HITCHENS.
Amberst Island, April 29th, 1868.
Correct answers were also received from Asa Day and Peter A. Harrison.

The answer to the novel in six chapters in the March number was omitted in the April number, and some of our youn/3 friends have sent us a reminder. The answer is-

The way of the transgressor is hard."

The Dutchman's Hen ; or Female

## Perversity.

Any one who tries at this time to set a hen that "won't" can appreciate the Dutchman's position to the full extent :]
"If she will, she will-you may depend ourt;
And if hhe won't, she won't-and there's the end on't?
Once with an honest Dutchichan walking
About his troubles he was talking-
The most of which seemed to arrise
Yrom friendes' and wife's perversities.
When he took breath his pipe to fill,
I ventured to suggest, that will
Was oft the equase of human ill,
That life was fall or self cienials,
And every man has his own triale.
" 'Tis not the will." he quick replied,
When people will, Tm always glad.
,This only when they wont, Im mad!
Cis only when hey wonl, m mad
Contrary folks, like mine old hen,
Who laid a dozen egge, and then,
Inetead of silting down to hatch,
Runs off into mine garden patch
I goos and catches her and bringe her
and back to her nest I flinge her ;
And then I snaps her on the head,
And tells her: "Sit there," you old jade $p$ " But eit she won't, for all $I$ nay,
She's It was mad, as mad as fire
Bat once agaln I thought 1 d try her
So after her I moon makes chase,
And brings her back to the old place,
Añad then I anapa her a great deal,
And does my best to make her feel
That she must do as she was bld
But not a blt of it she did. ${ }^{\text {She }}$ was the most contrarient blrd Of which $\bar{L}$ ever saw or heard. Before Tr turn my back again, Thinka $\mathrm{I}, \mathrm{v}_{\mathrm{m}}$ now a " used-ap" man Think I, mat now a adout tome other plan. . INl Ax her now, for if I don't, N y , will is conquered by her wou't So then I goes and gets some blocks, And with them makees a little bor And takes some straw, the very best, And makes the nicest kind of neast Then in the nest the egge 1 place And feel a amile upon my face Whan in the ultle box $\mathrm{I}^{\prime}$ ve sot her, For to this little box I did Conaider I must have a lid So that she conldn't get away, But in it, till she hatched muat stay. And then again, onee more 1 chase her, And cateh, and in the box I place her. Again I snaps her on the head, Untll I fear she might be dead And then, when $I$ had made her alt down, Immediately $I$ claps the lid on. And now, thinks I, I've got her fant, No longer shall I stand the brunt Of this old hen's confounded won't So I goes in and tells mine folke, And then I takes mine pipe and amokes, And walke about and feels so good That "would'nt" yields at length to " would. $\Delta$ ind as eo oft I snapted the hen, I take some "schnaps" myself, and ther I thought Id see how the old gretturWas getting on, where I had set ber The lid, the box so nicely fits on,

- Gently ratisod-dunder and bitizen !

There she waia sitting-standing up !
We fanoy we hear Mr. Schmitt's. vrow nay--schimilt you old fooi cet de poor hen alone, she sit ven she done layin'-E $\mathrm{E}_{\mathrm{p}}$.

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FARMER'S ADVOCATE.

## SCIENTIFIC FARMING

The value of Scientific Farming has been discussed until the question is threadbare, and yet it is one which may well bear a little further consideration. The success of Agriculture is a subject in which all are interested, whether they are farmers or not. Any improvement that will enable the wheat grower to raise larger crops is a blessing not only to the farmer, but to every poor seamstress and to every newsboy that occasionally indulges in the luxury of a penny loaf. The subjeet may have been worn threadbare, but it has not lost either in interest or in importance. Our attention has been re cently called to it by some remarks which have appeared in the Agriculturist from the pen of the author of "Walks and Talks." "It would require," he says, " pretty conclusive evidence to make me believe that any purely scientific man had made farming pay." Further on, he remarks:-"It will not be long before every State has its Agricultural college. We ought not to ask or expect too much from them, or we shall be disappointed. The farms oonnected with them cannot and will not pay."
What is a "purely scientific man?" Is it a man who is most thoroughly acquainted with one or more sciences, and who is acquainted with nothing else? If so, then of course, a purely scientific man cannot make farming pay or anything else pay. Farming is an art as well as a science. If a man does not under standthe art of farming, he had better not undertake to farm. But the same is true of science itself. Chemistry is an art as well as a science and we have seen men who could talk glibly about nitrogen, phosphorus, and carbon et id genus omne, and yet could not make an analysis, if their lives depended upon it. Mr. Harris tells us that Watt, (not Watts) would never himself have succeeded in manufacturing steäm engines with a profit. Very likely! for Watt tells us that he would as soon "have faced a loaded cannon, as settle an account with a man." But how was it with Wallaston? He was a member of the Royal Society; he was acknowledged by all to be one of the first chemists of the age : he has left his "foot-prints on the science, in the shape of numerous discoveries, and yet he was engaged in the business of manufacturing chemical vessels, and made $\$ 150,000$ by purely business operations; -not by stocks, nor by petroleum, nor by shoddy, nor by cheating. Fairbairn is a man that has "manufactured steam engines with a profit." Is he not a "scientiffec man?" Is Nasmyth, the inventor of the steam hammer not a "scientific man?"-and yet we believe he conducts a heavy business and makes money How is it with Whitworth, with Stephenson, and others? It strikes us that these men are none the less scientific because they are practical, and none the less practical because they are scientific

In regard to the farms attached to the Agricultural Colleges we would like to ask if the Michigan College Farm does not pay? W8 understand that it does, and the only farm of the kind within our knowledge that has not
paic, certainly cannot accuse-science of its failure.. On these farms there will always be large expenses for experiments. These will not pay directly in cash, and of them a separate account should be kept. Moreover these farms onght to be in a large measure, managed with a view to instruction Good specimens of the different breeds of domestic animals should be kept, and this to an extent that a mere money-making farmer would consider injudicious. The same is true in regard to crops, and for all these peculiar necessities ample allowance ought to be made and we have sufficient faith in the good sense of the public, to believe that it will be made. But if the general farming operations of our Agricultural Colleges do not pay, then they will fail in ope of their chief objects, for they will fail to teach that kind of farming which alone can be adopted as a business-the farming that pays.
But the point in Mr. Harris' article to whiich we chiefly take exception, is the following:"Some time ago I was reported as saying that we wanted young neen of capital, intelligence and enterprise, who should engage in farming with a determination to make it pay. If I sai o, I spoke thoughtlessly, for it is not my idea $t$ all. We want intelligent educated men, who love farming, and who are determined to adopt it.as the business of their lives, and who shall follow it with all the skill and science and energy they can command. A manufacturer who should engage in making woollen goods with a determination to make it pay would probably soon furnish nothing but shoddy A grocer whose only object was profit would be tempted to give us more peas than coffee And the young man who engages in farming etermined to make it pay will probably skin his land, or advertise 'Japan spring wheat hat will yield 60 bushels per acre, or go into the chicken business, or sell grades for thorough breds.
e doubt very much if Mr. Harris means what he says. To us it geems more probable that his mind has been following some out-of the-way line of argument to which we have no clue. In other words he has been indulging in a day-dream of which he has given us a ew unconnected fragments. We can hardly believe that he thinks that every man who anxious to do a good business would cheat His article considered as a homily on the texts "Beware of covetousness," is most excellent. But when viewed as a "Talk" from one "good" rarmer-or at least from one farmer who "means to be good"-to another, we regard it as decidedly objectionable.
Our belief has always been that money is one of the main springs that drive our factories, our farms, aye, and many of our churches! Our grocer stands behind his counter formoney; our manufacturer furnishes us with goods for-money; our preacher preaches to us and prays for us, in a measure at least, for money." And yet they are all honest men. The first does not put peas in our coffee ; some of our garments at least have not been shoddy, and our pastor is an carnest Christian man.

And yet he works for money; he has a large family and his deternination must be to make his calling "pay," for he has before him the fear of the text-"He that provideth not for his own household has denied the faith and is worse than an infidel." And we hold that the man that accuses him of wrong doing therein is either a fool or an atheist.
Talk as we may, no business will be followed by those who can get out of it unless it will pay. And in our estimation we do want active energetic, scientific young men who will make farming the business of their livés. and this they will do only upon condition that it will pay-for they were fools else. We want men who can furnish wheat for half whatit now costs, so that the pittance of the poor may go twice as far as it now dops; men whe can make beef and mutton cheap, so that those who cannot get it now may eat and be strong. And this can be accomplighed only by the application of science.
We extract the above from Moore's Rural New-Yorker, one of the best papers that come to our office. We have expended considerable money in experimenting, añd are fully satisfied that no investment could be made more profitable, or more beneficial in Canada, and to Canada, than the proper establishment of an experimental seed farm, in connection with an Agricultural paper and a seed ware room. There may, must and will be, some losses on some kinds of seed; also considerable expense is necessary to "establish a paper, but the profits on seeds that can be depended on are very great. It matters but little about the price paid; the farmers all want a continual change of seed, they want at place in the country where they can depend on being supplied with a genuine article. The profit will amply pay all the losses and experiments; but it takes a series of years to canváss, introduce, experiment, and establish such an institution. But once established and conducted by honor able men, its influence and utility become wider known, and better appreciated year by year. We wonld recommend the leading armers of each section of the country, to orm a business conncction with such an establishment, to enable themselves to obtain the first varieties of new seeds that may from ime to time be tested and approved of. Every armer must now be convinced of the necessity of a continual renewal of our cereals.

We have now an agent trayelling to different parts, examining and reporting to us about crops and stock, and if any of you have any superior kind of grain, roots, grass, stock, plants, or fruit, and consider it of value to the country, send word to us, giving full particulars. Should we consider it of importance we might call and examine for ourselves or send our agent, as we can speak of things that we have seen, with greater confidence than otherwise. He has lately been to Prescott and the Province of Quebec.

## FENIANISM.

The Ferians are again making prepara tions for another invasion. Under no censideration allow stragglers to rove about you vicinity unwatched; murder, greek fire, and plunder, might be the consequences. repared to give them a would they hould you meet them or should they call on you.
The following extract from a letter written by the late Hon. T. D. McGee, to the Earl of Mayo, we give as the sentiments of patriotism and devotion to the that notable statesman - exhibiting unmistakeable proof of his unfaltering affection to the real interests of his countrymen :
'As a general rule-an almost unexcep ional rule-both classes, in town and country, rhile ardently and unmistakeably Irish, are t the same time, as loyal to British American institutions, as thoroughly content with the overnment under which they live-the Imperial connection included-as any other portion of our population, of whatever faith or origin. Being one of the members of the Parliament and government of this country for some years past, I have felt it to be my first duty to strengthen and extend this patriotic spirit, for their own good and the good of our adopted country; and in doing so I felt bound necessarily to resist and combat the inviduous and incessant efforts to the contrary of the secret Irish societies established during the civil war at New York. When those societies have given you somuch trouble even on your side of the Atlantic, your lordship may imagine what efforts they must have put forth in these British provinces, one-third Irish, and
"Our countrymen in Canada, my lord, do on much regard the American leaders as not so mues of Canada and enemies of Ireland. We see of Canada and er Irish
wrongs, as impediments to Ireland's reconstruction. Those of us who are Catholics, living in and by our holy. faith, add to this political hostity towards eni nism, arooted horror of all secret socienies, so by the Church. Knowing, moreover, what manner of men the American organisers usually are -seeing the wanton misery they have caused their dupes at home-and the dishoner where-the very sound of Fenianism is detes ted with us, save and except by a few characterless desperadoes among the float ing population of our principal cities.

## CATTLE FAIRS

Harriston, last Friday in each month. Drayton, First Monday in each month Elora, First Tuesday in each month. New Hamburg, First Tuesday in each month. Guelph, First/Wednesday in each mont Berlin, First Thursday in each month. Elmira, Second Monday in every month. Waterloo, Second Wuesday in every month Mt. Forest, Third Wednesday in every mo Durham. Tuesday prowing Mount Forest. Arthur, do

We would call the attention of our readers that have not a horse-rake, to those manufactured by the enterprising firm of Plummer \& Pacey. We purchased one of them last year and prefer them to any we have used on our farm. It is a 15w priced imples in a single season. Let your sons or daughters have half a day or a day, and gain one of the prices offered.

Notice. - No more orders will now be re ceived for our fall grain, at previous advertised rates, but orders already taken will be
duly attended to. Price list will be published in the proper time

## LONDON MARKETS.



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## FOR SALE.

## $\left.\begin{array}{c}\text { One Durham Bull } \\ \text { one Hereford do. }\end{array}\right\}$ Thorough bred,

and two Gallo
Improved
way Cows.
R. L. DENISON, Toronto.

## PRIZE LIST FOR JUNE AND JULY.

RESENTED by the Citizens of London to the Boys and Girls, or others of the Dominion of Canada, for getting up Clubs for the Farmer's Advocate daring June and July.

1. One Flexible and Reversible Corn Cultivator, by J. Elliot, Phœnix Foundry, Wellingten Street.
2. One Flexib Patent Hay and Pea Rake, by Plummet \& Pacey, Ridout Street, Implement Manufacturer
3. One Ladies Broach, by H. S. Murray, Jeweler, Richmond Street.
4. One Riding Bridle, by J. Ross, Harness Maker, Dundas Street.
5. One Riding Bride, by J. Ross, Co., Dry Goods Merchants, Dund
6. One Pocket Hat and Case, by E. Beltz, Hatter, Dundas Street
7. One Pocket Hat and Case, by E. Beltz, Ratter, Boot and Shoe Store, Dundas Street.

8: One patent Pea Sheller, by J. Thompson, Hardware Merchant, Talbot and Dundas Street
8. Ore patent Pea Sheller, by J. Thompson, Har
9 . One Churn, by J. Seal, Cooper, King Street.
10. One pair Shoshoness Vases, W. H. Robinson, Druggist, Richmond Street.
11. Six Patent Preserve Jars, by A. Rowland, Crockery Store, Richmond Street
12. Six Tubes choice Paints, by R. Lewis, Wholesale Paper Warehouse, Richmond Street
13. Two copies of the "Farmer's Advocate" for one year, by G. T. Hiscox, Livery Stable Proprietor, Dundas Street.
14. One copy of the "Farmer"s Advocate," for one year, by J. W. Smyth, Marble Cutter, Dundas Street
$\begin{array}{lllll}15 . & \text { do } & \text { do } & \text { do } & \text { do } \\ 16 . & \text { do } & \text { do } & \text { do } & \text { do }\end{array}$ do by C. D. Holmes, Barrister, Dundas Street. 17. do do do do do do by Wm. Balkwill, Hotel Keeper, Talbot Street, opposite Market Square.

18 Six prizes, one packet
Parents this may be a good way of giving your children an interest in agricultural affairs. It will do them good, awaken new energies in them, and the prize takers will most likely become leading inhabitants in their vicinities, and far more likely to become prosperous in life. It will be a source of some amusement, should Ma

To gain the 1st prize a club of not less than twenty-five names must be sent in; for the second prize not less than fifteen names dor be then forwarded to Just try it at onee, and you will not regret it.

## FARMER'S ADVOCATE:

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yearling do. one Bull Calf. LETEWOLDS:- Ten or more of our best. CHEVIOTS:-Ten or more do do
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1ation act, and for heavy law and othe lation act, and for heavy la wand other expensege caused.
by and act. April 25th, 1868


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