

WORKS



ore use for

ery respect. Our
n the Jun. Mower
sample machines
portunity of exam-

son shall be
our Agents.

an opportunity o
ner Machines ever

for 1871,
d malleable

f Rake.

lf-Rake.

Mower.

ver, No. 1.

n Drill.

y Tedder.

RATOR

all's 8 or 10 Horse

HULLER,

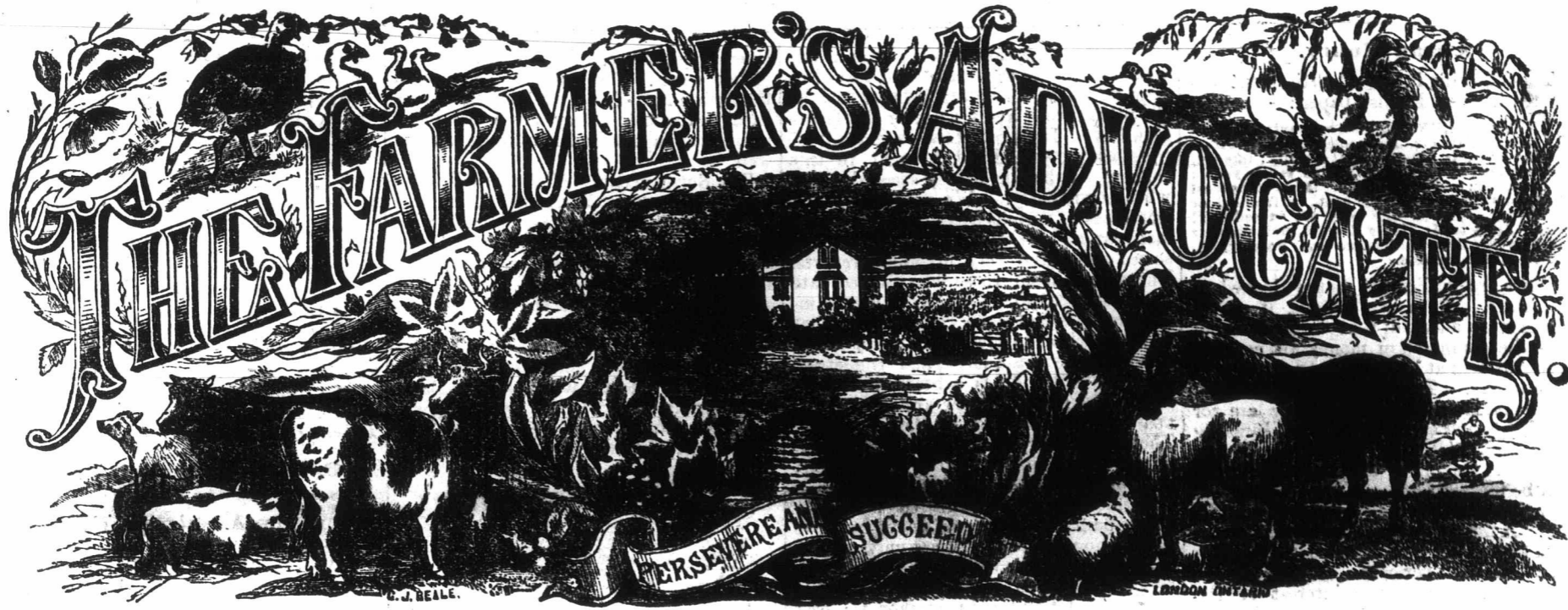
our Machines

on, and pur-
h in Mowing
conclude the

EN,

RESIDENT,

A, ONTARIO.



VOL. VII. { WILLIAM WELD,
Editor and Proprietor }

LONDON, ONT., MARCH, 1872.

{ \$1 Per Annum, Postage Prepaid. } NO. 3.
{ Office—Dundas St., Opp. City Hotel. }

INDEX

GENERAL EDITORIAL. page
Canadian Dairymen's Convention..... 33
The \$200 Tomato..... 33
Patching..... 33
Ayrshires..... 33
Cheap Money..... 34
Seeds..... 34
To Hon. Arch. McKellar..... 34
Agricultural and Arts Association..... 34
In Open Council..... 34
The Mimico Farm..... 34
Farmers' Interests..... 34
Last Kick of the Johnson Compact..... 35
Notes on English Customs..... 35
Monthly Cattle Fairs..... 35
Editorial Table..... 35
Simpson's Cattle Spice..... 35
Notice..... 36
Farmers' Politics..... 36
Breeder's Column..... 36
Ancient Short-horns..... 36
X. A. Willard's Address..... 37
CORRESPONDENCE
Apiary, Wintering Bees..... 38
Building, To Build a Warm House..... 38
Complimentary, &c..... 38
To Farmers' Sons..... 38
Suggested Items..... 38
Implements—New Subsoiler..... 38
Dominion Stamp Extractor..... 38
Does Farming Pay?..... 38
Horses Putting Out Their Tongues..... 39
Seeds, Trees and Plants..... 39
Crown Peas..... 39
McCarling Wheat..... 39
The Potato..... 39
Horticulture, The Orchard..... 39
THE FIELD.
Forest and Agriculture..... 42
Timely Topics..... 42
STOCK.
Treatment of Breeding Sows..... 42
Sulphur for Animals..... 42
THE APIARY.
Weight of Bees..... 42
THE ORCHARD.
Thinning of Fruit..... 42
THE HOUSEHOLD.
Poor Potatoes Made Palatable..... 43
A French Broil..... 43
Wash for Roofs and Buildings..... 43
Pumpkins for Inflammatory Rheumatism..... 43
Cure for Small Pox..... 43
VETERINARY.
Shoeing Horses..... 43
Gilled Shoulders on Horses..... 43
To Train a Horse to Stand..... 43
DAIRY DEPARTMENT.
A Convenient Milk Rack..... 43
Milk in Silence..... 43
MISCELLANEOUS.
Lady Farmers..... 43
Farming Well..... 43
To Train a Fuschia..... 43
Brief..... 43
Grasshoppers in Maine..... 43
A Woman Farmer..... 43
Page 41, 45, 46, 47, 48, advertisements.
YOUTH'S DEPARTMENT.
Answers to Last Month's Dept..... 40
Riddles, Puzzles, Enigmas, &c..... 40
Around the Hearthstone..... 41
Beet Sugar..... 41
To the Ladies (Illustrated)..... 41
Value of Ashes..... 41
New Council of Agriculture and Arts..... 41

The Canadian Dairymen's Convention—1872.

The Dairymen's Convention this year was not one jot behind its predecessors for useful information. We think it the best meeting of farmers that has yet been assembled. The most intelligent and most enterprising attend it, coming from a hundred miles. The useful information imparted there acts most beneficially on the country. Everyone that attended must have been highly gratified and well profited by it. Although the attendance was good, there were not half as many there as ought to have been.

Mr. Willard delivered the annual address, and a masterly, entertaining, useful, and instructive address it was, and although long, it was listened to with breathless silence. We insert a considerable portion of it in another part of this journal. The part that tickled the risible faculties most in the address was an attempt to encourage the dairymen, who have much to contend against in the ignorance and tardiness of the generality of farmers. He desired to show the difficulty there was in getting them out of the old beaten track and of improving them. He said that many of them had the hide of a rhinoceros and their ears were too long; how true the remark! The part that caused the greatest excitement were his remarks in regard to the condensing of milk, which business was shown to be far more lucrative. The demand for condensed milk was shown to be gradually increasing, and the profits were enormous.

The morning after he had delivered his address parties were to be seen gathered in groups of twos and threes, discussing the subject; we were among them, and one dairyman of the close-fisted class particularly requested us not to give notice about this in our journal, as he wished to go into the business. There are, no doubt, many more that heard the address who have an intention of going into it and investing; we wish them success, but would not advise all of you to neglect your present business, which is a certainty.

Mr. Arnold, of Ithica, N. Y., also gave an address, and showed a sample of poisoned cheese; we think we have seen similar cheeses before. The cheese looked sound, but had a heated taste which he attributed to uncleanness. Cleanliness in every particular was treated upon and shown to be most essential.

The \$2000 Tomato.

The Coming Tomato; the Canadian Victor.

A gentleman in Canada has for many years devoted his time to the propagation of this plant. He has tried every kind,

and now has a tomato that appears destined to surpass all other varieties. He claims that the fruit will ripen from eight to ten days earlier than any other variety, and the fruit is superior. It is heavy, full-meated and rich; of a large size and from a round to an oval in shape; red colour. The fruit hangs more evenly on the vines than in other varieties, and the seeds are not so numerous. He says no seedman in Canada can do justice to it; he never has parted with a seed, and has had it perfected and tried for three seasons, along with other varieties. He intends offering it to the leading seedmen in the States, and will supply them with the seed to test themselves, and will not ask one cent until they are satisfied with its superiority.

Two thousand dollars appears to be a high price for a seed, but the rivalry on the other side is so great to procure the best varieties that the gardeners there will pay a price that will not be out-bid by others having a crop on the market before them. We do not wish to invest in this, though we have paid high prices enough for seeds; we have paid \$3 per lb. for potatoes and \$1 for 5 seeds. But we are going beyond that price this year; we shall have some flower seeds that we will have to pay at the rate of \$90 per oz. for. Some of our subscribers may want them! But \$2000 for a tomato is away, away beyond our ideas.

Patching.

The New Agricultural Bill has already been patched, and we think it will require considerable more patching to give justice and fair play to farmers. Patch the first is to make the members of the Council of Agriculture and Arts elective every year. Patch the second is to make them elective as they were before. The big patch is the Mimico establishment, which was patched up for certain parties that now have a leather patch at the stern of the breach. The next consideration is, can it be patched up to be of real benefit to farmers or not? can it be made worth its cost, or would it be better to put a black patch over it. If it is to exist, should members of Parliament have the management? It is a question in our mind whether members of Parliament should even be eligible to take seats at the Board of Agriculture. Should the Mimico establishment be carried on, would it not be apt to give a party political sway? Should it be conducted directly by members of Parliament or by the Board of Agriculture? Our opinion is that if this establishment is to be carried on, the Board of Agriculture should have the control over it. We also believe that the Board of Agriculture should con-

sist of farmers, and that members of Parliament should not be on the Board. We have no personal feeling against any Member of Parliament that sits at the Board. We know they are very useful members, and are most active and influential at the meetings, but step outside into the field, the barn or stock yards, and perhaps some of the farmers might have a little more knowledge of the affairs. Next year there may be another patch to the new Bill.

Since writing the foregoing, and just as the paper is going to press, we hear that the Mimico Farm is likely to be abandoned. An investigation having been ordered by the Commissioner, the patching has only commenced.

Ayrshires.

We have had far more enquiries for this milking class of animals during the past few months than we have had for years before. Many of the dairymen are enquiring for bulls of this class, as they care more for the milk than for the beef, and we have no doubt that the dairymen of Canada understand their business as well as any class of farmers in the country. It is with pleasure we notice that Mr. Guy, of Oshawa, has come to our relief by inserting the bulls he has for sale, as we hardly knew to what breeder to send applications. Mr. Guy exhibited some very fine cows at the recent Exhibition, and his bull "Leon," which appeared in the columns of this paper, was a very fine animal, we think the best owned in Ontario at that time. The representation of the bull can now be seen by turning to page 24 of the 6th volume of this journal. It is of great advantage to purchasers and breeders to be able to turn to representations of the sires or dams of animals, and we believe that our king of breeders, F. W. Stone, has lost \$20,000 by neglecting it. Mr. Cochrane has made twice that sum by having good engravings, although a great error in engravings is now being made by Durham breeders. A truthful representation is not good enough for the majority of them, judging from the cuts in Herd Books.

Monarch Cucumber.

This cucumber is of a large size and long; bright green; very even in size from end to end, without any tendency to grow pot-bellied. Very early and very productive, yielding nearly double the crop of other long varieties. Of excellent quality both for the table and for pickling. This is the first year of the dissemination of this seed. Package.

Cheap Money.

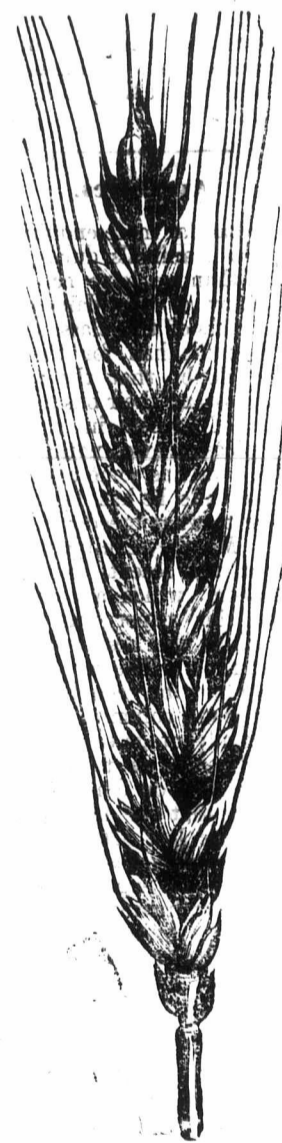
The following is an advertisement extracted from an English paper:—

MONEY to be LENT, in town or country, to Gentlemen, Farmers, Tradesmen, or others, from £50 and upwards, upon personal security; interest, 5 per cent. per annum, from one to seven years; no commission or charges made. Also, sums from £1,000, on mortgage, at 3 per cent., on freehold or leasehold property, for any term not exceeding 21 years.—Apply to Mr. Henry Howard, civil engineer and surveyor (late Girdlestone and Barclay), 11, Euston-square, London.

There are millions of money loaned at such rates. Then we believe, if proper means were adopted, that farmers could have the command of money to conduct their business at half the rate they now have to pay. The banks are in no way calculated for the farmers; they are for merchants and speculators. The Building and Loan Societies are a lot of shaving shops, and the minor shaving shops may well be termed robbing dens; we speak from close observation of them in this city. A farmer who has an unencumbered farm should not be compelled to pay 10, 15, 20, 25 or 40 per cent. If our Legislators would look to the interest of the agriculturist we might have the use of money for 2, 3, 5 or 10 years at a moderate rate of interest. A three-months' note is of no use to a farmer; in fact, it is far worse than nothing. A farmer wants to add to his land, drain it, erect buildings, plant trees or use the money in many other useful ways. There is no accommodation for this class of the community. We hope and believe the interests of the farmers will be better represented than they have been.

Seeds.

The Canadian Agricultural Emporium
Seed Report for March, 1872:—

THE M'CARLING WHEAT.

A good Spring Wheat is what the country needs as much as anything. The M'Carling wheat appears destined to fill the requirement. It has now been cultivated two years in this section of the country and has improved each year, surpassing all the old varieties. From accounts of

this wheat it appears to have been a fall wheat sent from the States and turned to a spring wheat, a handful being taken as the parent stock and sown near the Georgian Bay. Its properties were heard of, the stock purchased and brought to this country. It has invariably succeeded best when sown early. We sent out many small lots to various parts of the country last year, and all we have heard from who sowed early give very favorable reports. The reports from those who sowed late have not been so good. The great improvement it has made convinces us that it is the wheat to sow, the quality being excellent, the grain large, and the straw standing well. It is a bearded variety, long in the head and the grains are wide apart, even wider than in the engraving. There is but very little of it yet in existence. It commanded \$10 per bushel last year, and it will be many years before enough of it can be procured to supply the demand. We have no doubt but that those who procure it will not only have a large yield, but we believe the prices will be high for seed for a long time. It gained the 1st and 2nd prizes for the best spring wheat this year at the exhibitions. We shall send out no other variety, as we consider this the best and have confidence in recommending it. We have but a small quantity, and shall sell it only in small lots to enable our subscribers to procure a little each.

PEAS.

The Crown Peas have given satisfaction to all good farmers who have sowed them in good, rich, clean land, if they have not wanted pea straw. The yield has been satisfactory, far surpassing that of the Golden Vine, Multiplus, or Marrow Fat varieties. They are now pretty generally spread over the country, still they are not easily procured pure and free from bugs.

The Dan. O'Rourke's are now coming into cultivation. They yield well and ripen from two to three weeks earlier than any other field pea, which is a very important consideration when we wish to clean our land for fall wheat.

The Excelsiors are long in the pod, frequently having ten and eleven peas in a pod. On light, poor or worn soils they will produce a larger crop than any other variety. They do well on any soil and are in demand by parties understanding their nature. They are well liked and deserve attention. We are compelled to give this pea a name. They were raised from a selection taken from other peas when growing and have been propagated for some time, but no one has yet been able to give us a name. We give this

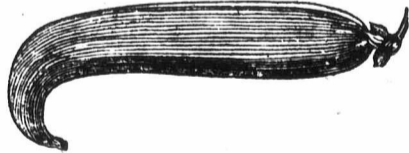


illustration which we have had made from descriptions, as we had not a pod at hand. No pea that has yet come under our observation has such a long turn at the end of the pod as this variety. Perhaps some may aid us in discovering the right name. The above illustration will answer, although it is rather thick at the turn.

THE CHEVALIER BARLEY.

This barley has not given very general satisfaction. Some like it very well, but, on the whole, we do not think it will come into repute, therefore we shall not commend it as we fear it will injure the price of our common barley. It is well known to us that some purchasers mix it and send it to the States, but if it is much practised it will give our barley a bad name, as they will not malt together.

OATS.

The various new kinds of oats have given general satisfaction. The Westwell and Black Poland varieties are about the best black oats, as far as appearance goes; they will take prizes at exhibitions and that will sell them, but they will not

ripen as quickly as other varieties by one or two weeks. Many do not like them on that account. The frost sometimes cuts them in the fall. They are a jet black oat, but are apt to hull if allowed to ripen well.

The Surprise oats shell more easily than the Emporiums. Many like them, still we prefer the Emporiums, which, we believe, are White Polands improved. For a white heavy oat they are equal to any; the straw stands well and they do not shell like the Angus, Scott or Potato oats (all the same variety, only known by different names in different places.) For a black oat it is our impression that the New Brunswick oats will take the lead. This variety stands well, yields largely, and has a thin hull; it grows in a branching manner, similar to the following illustration:



To the Hon. Archibald McKellar, Minister of Agriculture:—

We would respectfully remind you that the Mimico Agricultural Farm was established for the purpose of trampling out private enterprise; to enchain and enslave the farmers rather than to elevate their position. The plans have been dishonorably taken from an individual who has labored for years to bring them before the public, and which plans have been again and again recommended to the consideration of the Legislature. No remuneration has in any way been given, although aid was promised by the late Minister of Agriculture to the originator of those plans. It was withheld because the individual would not support measures that he deemed injurious to the agricultural interests of the Dominion. We would also call your attention to the immense number emigrating from our country, some of which has been caused by improper treatment of immigrants that have arrived. One dissatisfied person causes more. We are aware that both timber and land have been taken from some individuals by the acts of the Government after the emigrants had paid their cash for the land and the timber on it. As there appears to be no scarcity of money in the public exchequer and plenty of land yet unoccupied, would it not be well to settle any really just claims the Government might have against them. Yours respectfully,
FARMERS' ADVOCATE.

N. B.—We submit to you the following commendations recently received, also trusting that the former recommendations have fallen under your notice. The originals are now in the office of the Hon. E. Blake, President of the Council.—F. A.

Office of the Agricultural & Arts Association of Ontario.

Toronto, Feb. 3rd, 1872.

DEAR SIR,—I beg leave to forward you the subjoined copy of a Resolution passed at a meeting of the Council of the Agri-

cultural and Arts Association on the 7th December last, viz:—

Moved by Mr. Shipley, seconded by Mr. White,—

"That this Council considers that the Agricultural Emporium of Mr. William Weld, of London, for the sale of stock, the testing and sale of implements, seeds, &c., has been of much service to the agricultural interests of the Province, and the Secretary is requested to send Mr. Weld a copy of this Resolution."—Carried.

I have the honor to be, dear sir, your obedient servant,

HUGH C. THOMSON, Sec'y.

Wm. Weld, Esq., London.

SEAL,
Agricultural & Arts Association.

In Open Council, 26th January, 1872.

Moved by A. Seabrooke, seconded by R. Brown, that,—

"Whereas W. Weld, Editor of the FARMERS' ADVOCATE, has for a series of years devoted his time and means to the interests of the agriculturists of Canada, and that much good has been done by the same, therefore this Council recommends him to the favorable consideration of the Legislative Assembly and the Government of Ontario, trusting some substantial recognition of his services will be made."—Carried.

I hereby certify that the above is a true copy.

JAS. KEFFER, County Clerk.
SEAL,
County of Middlesex.

The Mimico Farm.

We hope the Government will not attempt to eat stolen bread by accepting the Mimico Opposition to private enterprise without enquiring into the title of the plans. It is said that stolen bread is sweet, but we do not think this Mimico Farm is very sweet to them. They know they have a kind of an elephant on their hands. There is a saying, and we believe it is often quoted by lawyers, that "a receiver is worse than a thief." Still there is another saying that "honesty is the best policy," and we believe it is, but we know it is too seldom practised.

Farmers' Interests.

Sir Stafford Northcote is reported to have said very recently in England:—

"It was perfectly true that members of Parliament were a great deal too apt to get up when they had very little that they knew to say, and it was therefore extremely important that they should be informed and guided by those who were able to inform them upon matters which really affected the welfare of the country, as to what it was they ought to say. Now there could be no doubt that the agricultural interest was one of the most important interests of the country, and one which was affected by almost every question that affected every other portion of the community, so that they could not raise the question of police, political economy, or the sanitary measure, which did not more or less—and generally more so—affect the agricultural interest. Members of Parliament who were connected with the agricultural interests of the country, were conscious when questions came upon them suddenly that there must be an agricultural side to the question and that they ought to give every consideration to it if they only knew what it was; they had learnt what they knew from some casual acquaintance and they took a one-sided view of a question which had a great many sides. What they required was that they should be instructed by those who were interested in it as to what their deliberate opinion upon them was, when all points had been fairly considered and discussed. They did not want these questions to be rudely thrown down in the House of Commons, but to be discussed out of doors. There was at one time a great prejudice raised against the agricultural interest in Parliament because it was supposed that they took a class view and were looking to some selfish object of their own. He hoped that time was passed."

The above is an extract from an English paper.

This once on its last which can The voices now begun of the indep are now beg different tor are beginn now they lo and disgust so long supp them. The of the inter to monopol private pur been sold in the country most aude downright think many brought to in the histo

The Cou chased 10 city many their exhib under favo Provincial erected the made, too, land out of very low r ing the su voice of t when it w not to be s the utter a pact the ar land is sol \$3000 and made by t money and humbug! be claimed cision of a decidedly shall enter the land. ciety, they was obtain a beautif testing see to some o annual va more than it. As fo money to be using ing the re Western stated, w mer's inte to destro Johnson have cont Provincia establish have been Mimico; have been to have a from the way the l the laws keep do quell ar to be cha has ev of the crushed to have l blackest to enforce all. Th be used autocrat

We da in this c this Dor name an be treati supp ces tural ins consulte known our goo

The Last Kick of the Johnson Compact.

This once powerful organization is now on its last legs and scarcely has anything which can be called a leg to stand on. The voices of the citizens of London are now beginning to complain, and the voices of the independent farmers of the county are now beginning to be heard in a totally different tone than previously; the scales are beginning to fall from their eyes and now they look with wonder, astonishment and disgust on the very party they have so long supported and allowed to rule over them. This very party has, disregarding of the interests of the farmers, attempted to monopolize the railway interest for private purposes, and county property has been sold much against the interests of the county by their power. But for the most audacious and barefaced pieces of downright deception and rascality we think many of their acts when properly brought to light will be found unsurpassed in the history of the country.

The County Agricultural Society purchased 10 acres of excellent land in this city many years ago, and they have held their exhibitions for years past, partly under favor, on other lands, because the Provincial Exhibition buildings have been erected there. There have been attempts made, too, for some time past, to get this land out of the hands of the Society at a very low rate. At the last annual meeting the subject was discussed, and the voice of the meeting was taken on it, when it was decided that the land was not to be sold, but was to be leased. To the utter astonishment of all but the Compact the announcement is made that the land is sold for a paltry sum of between \$3000 and \$4000, and attempts are being made by the said Compact to take this money and devote it to the Western Fair humbug! We are not sure that this can be claimed as a legal sale after the decision of the last meeting, which was decidedly opposed to it. At any rate we shall enter our protest against the sale of the land. It was no expense to the Society, they had no taxes to pay and a rent was obtained for it. It would have made a beautiful spot for experimenting and testing seeds if it had been properly leased to some one for such a purpose. The annual value of it might have become far more than the whole money obtained for it. As for the proposition to expend this money to aid the Western Fair, it would be using it for the very purpose of destroying the real interests of the farmers. The Western Fair, as we have previously stated, was never originated for the farmer's interest. The object of it has been to destroy the Provincial Board because Johnson was rejected from it; he was to have control of this human elephant; the Provincial Exhibition was to have been established; the local exhibitions were to have been subservient to the Provincial at Mimico; all friends to the clique were to have been favored, and any one who dared to have an opinion of his own differing from them was to be persecuted in every way the law could be brought to bear. If the laws were not of sufficient power to keep down an independent spirit or to quell any private enterprise, they were to be changed in order to effect it. This has even been done. The press of the country was to have been crushed to subservience to this clique or to have been annihilated. The darkest, blackest deeds were to have been enacted to enforce the iron rule of subservience on all. The farmers of the country were to be used as mere vassals and serfs to this autocratic power.

We dare any one to confute these facts in this or any other agricultural journal of this Dominion; we only ask to give the name and reply to this. Farmers should be treated as human beings and should be supposed to know what is for our agricultural interest; we might and ought to be consulted and our requirements made known if our money is to be expended for our good. We should know if the Wes-

tern Fair or Mimico Farm were ever intended for the benefit of farmers. Now the very parties sell our agricultural land and grasp at it for the support of these institutions, that have done more injury already to the country than a hundred times the price of the land sold. They are trying to make a big spread this year by offering \$10,000 in prizes. O! how easily are we poor farmers caught by a bait of a drivelling prize. The foundation of the Provincial Board was sound; it was really intended for the good of farmers; it has proved itself such despite a little mismanagement. We held up both hands for its support although we exposed its mismanagement when it was deserved and will do so again if we deem it necessary. This Western Fair must fall from its past position; they will not have such a bloated sum to talk of next year. If they had acted honorably and had given farmers fair play and their just dues, they might have had a better chance of success, yes, might have been an honor to our Dominion, but now the country generally look on it in its true light and will be apt to despise rather than respect us.

We hope the East Middlesex farmers will not consent to the sale of their property, nor allow it to be frittered away in a silly manner by supporting an institution that is opposed to the Provincial Association. Is our land to be sold against our wishes, and the money expended against our interests? This is for the farmers of East Middlesex to answer. Despite this act of selling the agricultural ground against the wishes of the members, they will still try and get some of their party in Parliament to represent the farmers. Farmers, awake, awake!

Notes on English Customs.

BY JAMES VICK.

We extract the following from part of a series of letters that were published in *The American Rural Home*, an excellent agricultural paper published in Rochester:

The social distinctions of England are more rigid and unreasoning, it appeared to me, than in any other country of Europe. There are the poor, middle, professional and aristocratic classes, and each of these subdivided into three or more sections, or substratums. Commencing at the bottom, the poor class is composed of beggars, paupers, laborers, and the lower or less skillful mechanics, and, perhaps, the smaller shopkeepers, hucksters, &c. The middle classes embrace the better class of mechanics, merchants and manufacturers; and this class seemed to be more subdivided, by reason of wealth, intelligence, &c., than any other. The professional class counts the doctors, lawyers, ministers, gentlemen of means and leisure, officers of the army and navy, &c. The aristocracy forms the top of the social pyramid, embracing all with rank and title, high up and above all, alone, stands the Queen of the British Empire. These different classes and divisions of classes do not mingle socially, and the effect is in some respects, I think, injurious to all. On my first visit to London, I observed a sign on one of the churches—"Day schools for the middle classes." This, I suppose, might be called a *class* if not a *classical* school. I cannot but think this system works badly in the schools, generally, but I observed its effects particularly in the Sabbath Schools. There may be pleasant Sabbath Schools in England, but I did not find them, though I took some pains to do so. Even in the most successful churches, such as Spurgeon's, they are but gloomy dens, without convenience or comfort. In nearly all the schools, the seats provided are long, narrow benches, without a particle of paint, such as were common in country school-houses half a century ago. When the children rise to sing, from one to half a dozen of the benches are sure to fall over. I visited the largest school in an important city, and inquired for the minister. He did not often visit the school. I asked for his children, they did not attend; the superintendent was of course present, but when I inquired for his children, I found they did not belong to the school. "Our schools are designed for the poorer classes," was the information I received on expressing surprise. This is the character of the Sabbath Schools throughout England. The wealthy, even those merely comfortably off, will not allow their children to associate with these considered be-

neath them; and as the latter are the most numerous, of course the Sabbath Schools are mainly composed of the lower classes. Perhaps the effect of a union of all classes would be to drag down the high instead of elevating the low, but I think not. I am happy that we have few who think themselves very high, and still less who are willing to acknowledge themselves low. We have a happy country; worth all it cost. It is founded on the intelligence and virtue of its citizens. Its destiny is in the hands of the people, and it is for them to say whether in the future we have a splendid country, the admiration of the civilized world, or a splendid ruin, the scorn of the nations.

I spoke of Spurgeon. I heard this celebrated preacher, in some respects under favorable circumstances for I became acquainted with a leading member of the church, and secured good seats. When the preacher made his appearance, and commenced at once to read the hymn, I was disappointed. He did not look like the pictures I had seen of him. There was a large frame, but little flesh; a limp in the walk and a feebleness of voice that betokened a worn out man. The sermon was plain, fresh, forcible; but had I heard the same in any country church in America I would not have been astonished, or thought the preacher unusually brilliant. A long time since Mr. Spurgeon commenced publishing his morning sermon in tract form, and this he said was the one-thousandth sermon since the commencement of their publication. I had heard much said of the congregational singing at this church, but it was ridiculously poor—a mere hum. The large congregation of about five thousand should have made the Tabernacle ring; but there was no organ or other instrument to lead the people, and the chorister had but a weak voice, so that he could not lead or control the audience, and there were all kinds of time and humming noises, and nothing like good, hearty congregational singing. I learned that Mr. Spurgeon had preached only once before for three months, having been laid up with the gout. I remembered then some very silly remarks he had made on the temperance question, and which are no doubt familiar to many. So much did I see of the evils of intemperance in England, that I have no doubt in my own mind that if the Rev. Mr. Spurgeon, and every minister in England, some fine day, should be banished from the country, and the liquor and beer with them, never to return, it would be a blessed day for old England. I fear intemperance is doing more mischief than these ministers are doing good, and yet very few seem to know or care anything about the matter. Indeed, it is very strange what notions good and otherwise reasonable people seem to have about drink.—They think stout or ale as necessary to healthful existence as food. After all, with the custom of drinking so general as it is, there is not as much intemperance apparent as one would anticipate. I do not believe there is a country in the world where people make such fools of themselves by intoxicating liquors as in America; and that is one reason, I suppose, why decent people have become disgusted with the practice, and discard it altogether as vulgar and wicked. The step between slight tipping and habitual drunkenness is shorter in America than in any country in Europe, I verily believe.

I was quite shocked at the remarks occasionally made respecting the Queen. I have never heard England's Queen mentioned in America but in terms of the highest respect. In England she is often represented as avaricious and miserly, caring for nothing but to secure money from the people for herself and family. Perhaps party spirit has something to do with this; then I suppose they think they have a right to speak as they please of their own, but would not like a foreigner to use the same terms—on the same principle, I suppose, that it is said a man will speak ill of his wife and children, but will not allow any one else to do so without fiercely resenting the insult.

I had some friends connected with the large seed house of Waite, Burnell & Huggins, the younger member of the firm having spent several days with me in Rochester. I found the establishment in Southwark-street new, neat and conveniently arranged. After spending an hour or more, I proposed to leave; it was afternoon, and I began to feel the need of luncheon, and quite plainly expressed my feelings on the subject. We were pressed to remain a little longer, and in about half an hour were invited into a neat dining room connected with the establishment, and found everything on the table that heat or appetite could desire. After luncheon I visited the kitchen, where I found the cook and every

convenience for setting up a hasty lunch or a pretty considerable dinner. This practice I found was quite common in large establishments in London.

The next day I had determined to take a trip into the county of Essex. This is the greatest seed-growing county in England.—England was always supposed to be a great fruit country, but fruit is not eaten there as freely as with us. Indeed I did not see any fruit at all remarkable except gooseberries, and they were splendid. You do not see any large dishes of strawberries served as with us, and covered with cream. Half-a-dozen, if not very large, will be put on a plate, each one having its stem attached, and you can take up the berry by the stem and eat it gradually. This is a great aggravation to any one fond of strawberries. This is not from any stinginess or disregard to your wishes or wants, but there seems to be the general idea that fruit is unhealthy, and the people have visions of cholera constantly before them. On inquiry of a friend who had visited America and had seen us eat strawberries in Rochester, why they did not use more fruit, especially strawberries, he declared they would all die if they consumed fruit as Americans do; that it was necessary for them to be very careful or they would be "upset." "Now," said he, "in England, if a child wants strawberries, the mother will give it one, but before it can have two there must be a grave consultation between father and mother as to its safety; but no prudent parent will allow a child to eat three without medical advice." This may be slightly exaggerated, but there is a real dread of the results of a free use of fruit. Whether the climate is at fault or the habits of the people, I do not know.

WE NOTICE that the inhabitants of Morrisburgh, Dundas Co. are about to petition the Legislature for an alteration in the Drainage Act.

Monthly Cattle Fairs.

- Guelph—First Wednesday in each month.
- Harriston—Friday before Guelph Fair.
- Bosworth—Saturday before Guelph Fair.
- Elora—The day before Guelph Fair.
- Drayton—The day before Elora Fair.
- Clifford—Thursday before Guelph Fair.
- Teviotdale—Friday before Guelph Fair.
- New Hamburg—First Tuesday in each month.
- Berlin—First Thursday in each month.
- Elmira—Second Monday in each month.
- Waterloo—Second Tuesday in each month.
- Mount Forest—Third Wednesday in each month.
- Durham—Tuesday preceding the above.
- Fergus—Thursday following Mt. Forest.
- Orangeville—Second Thursday in January, March, May, July, Sept. and Nov.
- Mono Mills—Third Wednesday in Jan., April, July and October.
- Erin—First Monday in Jan., April, July and October.
- Masonville—First Tuesday in Feb., May, August and November.
- Listowel—First Friday after Guelph Fair.

STRATFORD.—Monthly Fairs are to be established in this town, and will be held on the 1st Thursday in each month.

Editorial Table.

The Transactions of the New York State Agricultural Society, a large volume containing 784 pages illustrated with handsome cuts of grasses, the best set of illustrations of the kind we have seen. It contains very useful accounts of the proceedings in agricultural affairs, and a great amount of useful information. The Phrenological Journal and Life Illustrated, a good work on Man. It is a monthly publication, published by G. S. R. Wells, 789 Broadway, New York; \$2 per annum. Bliss & Sons' Seed Catalogue, handsomely illustrated and containing 141 pages. A supply of Jas. Vick's (Rochester) Catalogue, most elegantly illustrated. Crossman & Co., of Rochester; Wardman & Halls, Geneva, N. Y.; Ant. Roozen, New Haarlem, Holland. — Bulbs; Sutton & Sons, London, G. B.; R. H. Allen & Co., 189 Wall St., N. Y.; J. A. Bruce & Co., Hamilton; Sharp & Co., Guelph; C. Dawson, Toronto. Report of Dairymen's Convention, Ingersoll, 1871. Griffin's Seed Catalogue, London.

Simpson's Cattle Spice.

We have sent out several lots of this Spice and it is well liked. Those who have procured it once come for more. Its beneficial results astonish many that have tried it, and the reports from some whom we have furnished with it appear almost incredible. The demand for it is increasing.

Notice.

Having so much to attend to, we have placed our List of Lands in the hands of Mr. J. Nattrass, a gentleman who we have not the least doubt will give each of our patrons great satisfaction, as he has good business qualities, has a good connection, and will be able to devote more time to it than we can spare at present. We feel confident that you will approve of this step and that your business will be better attended to. This is a good way for farmers and others to dispose of their lands, if they have any to dispose of, as it will cost them nothing unless sales are actually effected. If you have any land to dispose of, send us the particulars. There are some who will apply for lands in particular localities. Send in particulars.

"Farmers' Politics."

SIR,—It is undoubtedly more congenial to the mind of an editor to have complimentary testimonials in his favour rather than severe criticism or denunciation in regard to the advocacy of particular measures or principles: were it otherwise, he would be scarcely human. At the same time, a publisher who wishes to support himself by the issue of a journal will, from prudential motives, endeavor to advocate the interests of his patrons, and point out means and measures which, if carried out, will result in their mutual prosperity. Permit me to say that in my opinion there is more good, substantial common sense in the article in your February number on "Farmers' Politics" than I have seen in any publication in the interest of the farmers of Canada. It has the right ring, and in the main is true, and I heartily rejoice that there is one advocate of the farming class who can speak freely of the disadvantages of our position without the fear of King Street before his eyes.

It has been stated, and with a show of reason, that Canadian farmers were indifferent and tardy in their support of an agricultural paper. The cause of this indifference has arisen in a great measure from the fact that our "Canadas" and "Ontarios" were facetiously endeavoring to impress upon our minds the fact that we were designed for hewers of wood and drawers of water for the few professionals of our Province, that we had no rights which our masters were bound to respect; in fact, we were not represented in the press or the legislative halls,—and when every other interest was attended to, and nothing else turning up, there might be a possibility of an "opening up" of our cause in the mist and fog of an indefinite future. The farmers have made Canadian interests by their muscle, energy and perseverance; they have taken the tree from the stump and made the land to bring forth; have contributed more than any other class, or all of them put together, to make the country prosperous, and what we want is fair play, equal rights, and we shall be satisfied with nothing less. We want a paper to support our interests boldly, fearlessly, with Canadian prosperity and progress as the basis, centre and circumference. Do not be afraid of that puerile and hackneyed cry of "disloyalty," but stand square up for the Canadian farmers' welfare, and I predict for you a warm and generous support. It is said of a certain man who would not provide for his own household, that he had denied the faith and was worse than an infidel. Is it surprising that with no press, no representation, with studied and persistent deception and misrepresentation of our position, that we, as a class, are not "posted" and indifferent. We have the power; let us wield it! M. W. BROWN. Paris, Feb. 22, 1872.

FARMERS' CLUBS are springing up throughout the northern counties. Fullerton has taken the lead, and meetings of the Society are regularly held, and matters in regard to agriculture fully and profitably discussed. In the A. C. bank settlement of Downie, a club is established, and also one in Hibbert.

Breeders' Column.

WE ARE pleased to notice that Col. Taylor, of this city has purchased from Wallcott & Campbell, of New York Mills, for the sum of \$2000, "Earl of Oxford," 9985, got by "Duke of Geneva;" dam, "10th Lady of Oxford," by "10th Duke of Thorndale." Some of this stock has been in such demand that they have been taken from the States to Europe. The Col. is laying the foundation of a fine herd.

WE HEAR that Mr. Carr, of Stackhouse, England, a celebrated breeder of Short Horns, is now staying with Hon. David Christie on a visit to observe the agricultural interests of Canada.

MESSES. Birrell & Johnston, Pickering, have sold their 1st prize bull calf "Bell Duke 2nd" (got by "Bell Duke of Oxford," out of "Mara," by "the Priest,") to Mr. Jeffrey, of Whitby, for \$245.

MANY breeders are much troubled at this season of the year with lice on their cattle. As a remedy, dust them all over with wood-ashes, and then note that this information is worth to you far more than your yearly subscription to our paper.

AT THE sale last year of part of the herd of Mr. McIntosh, Havering Park, England, he mentioned that he had that day been offered 2000 guineas for the American bull "3rd Duke of Geneva," bred by Mr. Sheldon, of Geneva, N.Y. Mr. McIntosh refused the tempting offer! and as this is the highest price ever offered for a bull, we place it on record as an encouragement to Canadian breeders to persevere. There is no reason why our breeders should not raise very valuable tribes of Short Horns, but to do this they must use bulls of fashionable pedigrees as well as animals that please the eye.

BIG HEIFER.

Mr. Wm. Humphries of the township of Percy has a Durham heifer that weighed 999 pounds when 13 months and 2 days old. Who can beat that?

LIVE STOCK.—Messrs. McKenzie & Fisher, Hyde Park, London, bought last week from Mr. T. Baxter, Hamilton, a short-horn Durham bull, eighteen months old, and weighing nearly 1600 pounds.

Notice.

On Jan'y 24th, we received a letter from Jas. Gardener, with no post office mark inside or out. The writer will please let us know where it came from. It is a source of very great loss to us, that postmasters do not stamp letters clearly; sometimes they are not stamped at all. Papers are sent in without notices or even the post mark. We have not as yet been able to move the Postal authorities to act, but still hope to do so. The mere naming of a township is no guide to us, and we particularly request parties to name their post office.

Another envelope came to us on the 1st of February containing \$1 in four quarters—scrip. It had no name or address. The post office stamp seems to be Summerston. We will be obliged if the party will let us know who they are by Postal Card.

SITTING HENS.

By allowing the hens to sit in the nest in which other hens have been in the habit of laying, they will be crowded by hens that resort to the nest for the purpose of depositing their eggs; and in a majority of cases, eggs will be broken and their place supplied by others laid a week or ten days after the hen commenced sitting; so that when the eggs begin to be hatched, there will remain eggs which need several days' more heat; and the result is, a small brood of chickens, and a lot of worthless eggs.

Put the sitting hen into a separate apartment, which may be a separate building, or an old harness-room, or a stall boarded up.

ANCIENT SHORTHORNS.

A reprint of the Sale Catalogue of Mr Charles Colling's Shorthorns, which took place at Ketton, Co. of Durham, England, in the year 1810, appeared some time ago. The "rise and progress" of the breed may be said to date from this event; it was the first sale of any Shorthorn or Teeswater stock that realized prices considerably beyond the ordinary market value, which at that time was about £20 for a good common or dairy cow, while beef was quoted at Smithfield market the day after the sale at from five to six shillings per stone of 8 lbs., exclusive of offal.

The lapse of time tells strongly against a very accurate description being given of the stock; as few persons then present are now living, recourse must be had to written accounts, which will be submitted to eye-witnesses of the sale, and added to, or corrected before publication. Much of the information given is entirely new to the public, and every endeavor has been made to render it trustworthy. A few observations concerning the cattle of the north, previous to the present century, may not be uninteresting. One of the earliest works published on live stock is called "Leonard Mascall's Government of Cattle," printed in black letters, 1633. It was the text book of several subsequent works, and many of its precepts and practices still hold good. The author, after mentioning that there are many diversities of cattle, "both white and red, mighty of body, and of great courage," gives, as the best descriptions, quotations from Mago of Carthage, Columella, and Stephanus, all of whom wrote most minute particulars of cattle, prior to the Christian era. Mago says, "Bulls ought to be gentle, and of a meane age, with a quick looke; his horns to be more shorte, like wise his neck more fleshie than an ox." "his forehead velvet, eyes great and large, mouzell blacke, nostrils open and wide, dewlappe great in hanging almost down to his knees, his breast round and big, shoulders large and deep, belly big, ribs wide and open, reins large, back straight and flat, with a little bending towards the rumpe, thighs round, legs straight and well trust, rather somewhat short than long, his tail long and well haired, and to be briefe, his body to be thicke and short." Columella saith, "a cow of estimation ought to be large and long bodied, gentle, having a large and deep belly, broad forehead and black open eyes, legges short and thick, and her breast deepe;" and Stephanus mentions, "that, the browne color mixt with white spots is good; great cleane horns, hayre somewhat crumpled, thighs thick and round, her udderen large and deepe, and her neck long and thick."

It is generally considered that cattle were imported into the North of England by the Danes, prior to the Norman Conquest. Other importations followed, more especially in the Holderness district; and a similarity of character has frequently been observed between the cattle in northern Europe and in the north of England. So recently as 1838, Mr. Torr, while travelling in Holland, visited Utrecht Fair, and saw a large number of animals "fully resembling ordinary Shorthorns; they were rare milkers, had tolerable formation, a good skin, mellow handle, and nice waxy horns, and with every variety of color."

The rich grazing land along the valley of the Tees would naturally be the home of good cattle. Mr. Bailey, the Durham historian, says, in 1810, "the cattle both sides of the Tees have been known by the appellation of the Teeswater breed." About 1740, their color was red and white, and white with a little red about the neck, or roan. This color being similar to those of the present improved breed of Shorthorns, makes it probable that they are descendants of the same "race." Mr. John Wright, born at Lowfields, near Catterick, in 1784, a well-known judge, and who was originally proposed as

the author of the Herd Book, says, that his earliest recollections of Shorthorns were large, massive, expansive cows, with great width and substance, hardy constitutions, mostly red and white spotted, white bodies, necks spotted with red or roan, ears red and head white, frequently black noses and rather long, waxy horns.

Nature when left alone generally reproduces herself. There is now in existence a herd of pedigree Shorthorns at Walton Hall, Staffordshire, which were originally obtained from Mr. Geo. Cowling of Ricknall Grange, Darlington, who bred from Teeswater cattle far back into the last century, and used in later years bulls of the Colling's, Charge's, and, lastly, of the "Princess" stock. His herd was sold in 1842, and some of the stock eventually found its way to Walton Hall, where it has been bred in and in for the last twenty years. The owner of the herd writes, "Farmers about here think white cows have delicate constitutions, but I am also convinced that they are nearly always good breeders and good milkers. The bulls that I have used have nearly all been white; my cattle are now mostly white, and so much alike, that it is difficult to tell one from another. I have a few with light roan and dark roan necks, and a few white with red spots."

Some of the Teeswater cattle were crossed with a bull that came out of Holland. Cully, in 1785, remarks, "I remember Mr. Michael Dobison, of the Isle, Selgefield, who went in the early part of his life into Holland, in order to buy bulls. Those he brought over, I have been told, did much service in improving the breed; and this Mr. Dobison, and his neighbors, even in my day, were noted for having the best breeds of short-horned cattle, and sold their bulls and heifers for great prices." Sir William St. Quintin and Sir James Pennycuik had stock with this Dutch blood. Coates, in the fifth volume of the Herd Book, gives the final cross of Bates' Wild Eyes tribe thus:—Descended from Mr. Michael Dobison's stock, which he purchased in Holland above a century ago. Other breeders afterwards imported livery (bad colored, coarse) fleshed animals, with huge buttocks and hips; these did much harm; and most of the old Teeswater breeders endeavored to avoid this evil.

Culley says in 1803, "The great obstacle to improvement was that no bull should be used to the same stock more than three years; if kept longer, the breed would be too near akin and produce tender diminutive stock liable to disorders." Blakewell (born 1726, died 1795) was "one of the earliest to upset these notions. For more than twenty years he had no cross, and the best stock was bred from the closest affinities, neither were they less hardy or liable to disorders." Both the brothers Colling bred Leicester Sheep or "Blakewell's improved Dishleys," and in all probability, the success of his principles induced others in the North to try them. Culley goes on to say, "It has been the misfortune of Shorthorn breeders to pursue the largest and biggest-boned ones for best. Their ideas are now enlarged, and I am glad to see my hopes well founded. In a few years rapid improvement has taken place in the breeding of Shorthorn cattle, and I have reason to think they will surpass their rivals the Longhorns, which excel in hide, hair, and quality of beef, as Shorthorns do in quantity of beef, tallow, and milk." Mr. Bailey, in his account of the Durham cattle, writes, "The visitants of Blakewell having seen what he had done with the Longhorns by selection, and at how much earlier ages they got fattened, were induced to try what could be done by similar means with the Shorthorns, and several selections were made for the purpose with great success."

(TO BE CONCLUDED IN OUR NEXT.)

Delivered at held

We leave does not address, at the

The American foreign marriage, and musical astrous.

Let us reason about theories, appeal only to the solution of the factory system, ing it in hot hard earnings.

What are the factories made have no property, and lating stock.

The cheese skill aid at the manipulative principle, most entirely this content, cheese goes is left to take and its quality varies precisely approximate to the. We cheese-making opment of that the tro from an-the ous in chav milk a id cu over-master which are The action gether mar been a flow of the case bad or wor

Now, the t peratur cheese mak wil, to in office—to elements of t a me low jury to th the best f taste. For t certa n com matical pro

You k mould, d genee-hot Colling, an Shorthorn the sur a lusi us a nature ha ho s wate the great lightning made to power ov provi ling which the cr-scop intelligent cheese v understar vic. Crea of its bei

Now, t and deve words, fo uniform excessive tion or cl and so on Cheese cnicary upon the the hous of 70 2, in flavou

The a tion if y underst have the fat, or a by after milk pa and me milk ch This is

X. A. Willard's Address

Delivered at the Dairymen's Convention, held at Ingersoll, 1872.

We leave out a large portion of statistics and other useful matter, as our space does not admit of the whole of the address, at the present, at least.

The American system of dependence upon a foreign market, and the forcing forward of immense stocks in hot weather, is a vicious one, and must always prove more or less disastrous.

Let us reason upon this matter without any absurd theories or speculations. I shall appeal only to your common sense for a practical solution of the question. I affirm that the factory system of curing cheese and marketing it in hot weather, is a shameful waste of the hard earnings of dairymen.

What are the facts? The greater bulk of the factories in the United States and in Canada have no conveniences for curing cheese properly, and have no provision for accumulating stock.

The cheese curing process is one requiring skill and attention to details, second only to the manipulation of the milk. The fundamental principles in this department are almost entirely ignored by the cheese-makers on this continent. From the time that the cheese goes from the press to the market, it is left to take its chances with the weather, and its quality when produced from good milk varies precisely as the weather happens to approximate to a certain uniform temperature.

We now know that the whole art of cheese-making consists in the proper development of a peculiar species of fungi, and that the trouble in cheese making also arises from another class of fungi more or less vicious in character, which gets possession of the milk and curds, or the cheese upon the shelf over-mastering the first named organisms, which are the cheese maker's real friend. The action of the one class of fungi is altogether marvellous, and according as they have been allowed to develop and take possession of the cheese, so is the product inferior, poor, bad or worthless.

Now, the useful class of fungi must have a temperature favorable to their growth. The cheese maker's art is to mould them to his will, to induce them to perform a specific office—to attack the caseine or nitrogenous elements of the cheese, and to break it down to a mellow plastic state, without doing injury to its flavor—in fine, to prepare it in the best form, both as to healthfulness and taste, for the human stomach. This, under certain conditions, it will perform with mathematical precision and with certainty.

You know how plants and animals are moulded to do the bidding of human intelligence—how B. Kewell produced his sheep—how Colling and Bates, and Booth, have made their Shorthorns—how the pomologist has changed the sour and bitter crab into the large and luscious apple—you see how even inanimate nature has been made to do our bidding—how water in the steam engine has become the great propelling power of the world—how lightning chained to the telegraph has been made to talk. God has given us unbounded power over animate and inanimate nature, providing we employ the immutable laws by which they are governed. So this minute microscopic fungus, under the hands of human intelligence, will perform our bidding in the cheese vat and upon the shelves, if we but understand and apply the law which the almighty Creator has laid down for the government of its being.

Now, to obtain the best results, the growth and development of these fungi (or, in other words, fermentation of the cheese), must be uniform and continuous. You cannot induce excessive activity one day, followed by a cessation or checking of the process the next day, and so on, and obtain a high standard product. Cheese made from good milk, and with only ordinary skill in manufacture, when placed upon the shelf in a well ventilated cheese-curing house, and kept in a uniform temperature of 70°, will almost invariably cure down fine in flavour and in quality.

The action of these fungi (call it fermentation if you choose) is peculiar, and is not fully understood. Certain it is, however, that they have the power of converting the caseine into fat, or a substance similar to fat, and hence, by attention in curing, a cheese made from milk partially skimmed may have as mellow and meaty an appearance and taste as whole milk cheese cured in variable temperatures. This is a fact abundantly proved by science,

and it has been fully demonstrated by the analysis of Voelcker.

This peculiarity in the manufacture and curing of cheese was brought before my notice in 1866 during my examination of English dairies. Mr Harding, the distinguished exponent of Cheddar cheese-making in England, always insisted that the goodness and delicate flavor of the cheese depended more upon the temperature and manner of curing than upon any extra manipulation in making. He affirmed that by keeping the temperature of his curing room at 70°, without variation, he could remove a considerable portion of cream from the milk, and yet could be able to make a cheese that would sell in the London market for the highest price. It was his usual custom to take the cream from the night's milk, and I have never seen nor tasted cheese more perfect in flavor, or with more of the characteristics of what we term "fine cheese" than that which I ate at his table.

His curing room is surrounded with a nest of iron pipes, which are supplied with hot water from the boiler below whenever the temperature of the room falls below 70°. In the low, even temperature of England, his curing room, built in with heavy walls of hollow brick, and with ample provision for ventilation, seldom varied in temperature from 70°.

I have experimented sufficiently in my own dairy to know that with good milk, and with a good curing room kept at 70°, there is no necessity for bad flavor, and that cheese can be kept from one year's end to the other, and yet retain that mild, rich, nutty taste which the English so justly characterize as the best manufacture.

I feel earnest about this matter of curing cheese, for I am convinced that its neglect is the great fault of American factories. The complaint is quite common that American cheese will not keep. The secret of long keeping cheese is not so much in its manufacture as in the milk from which it is made and its curing.

Our dairymen complain that prices are low, and are seeking a remedy. The remedy lies in better milk and in larger and better curing houses.

In New York there is not a single factory within my knowledge that can hold cheese over in hot weather and retain its flavor. Even under our system of weekly sales, immense quantities of July and August cheese are over-heated and tainted in flavor when they leave the factory. In New York there is not one factory in a hundred that can hold more than six or eight weeks' make of cheese. You hear of immense shipments of cheese in hot weather, and at low prices. Well the factories are forced to sell. They say: "We dare not keep it, for it is beginning to turn in flavor; the vats, our rooms are full, and it must be sold."

Now, is it any wonder that dealers buy low, and that dairymen are placed at disadvantage? Why, my friends, you and I and every one else, will buy as cheaply as we can. Has it not become a proverb that you cannot realize full value upon forced sales? This is the condition of the American cheese market during a large portion of the year, and England knows it. But the dealers after purchasing, are anxious to get rid of the goods, especially in hot weather. They have an article upon their hands which they know is constantly depreciating, and is liable to be lost altogether, and so they shift the responsibility as soon as may be, making what margin they can. It is just so in England. It is known that much of our cheese will not keep and the shippers are on nettles until they clear their warehouses of stock as fast as it comes in.

It is this over anxiety, this hot haste to have our product change hands for fear of loss, that brings prices down. You will observe that English Cheddar holds its own at 76 to 80s. the cwt., year after year, and why? Because it can be kept a long time without depreciating.

HOW TO IMPROVE CURING ROOMS.

But you will ask—In what way can curing rooms be improved, and in what way can buildings already erected be utilized?

In the first place, wherever possible, I would have a cellar under the dry house. I would have it six or eight inches below the surface, the walls rising above the ground two or three feet, or of a height sufficient to give an abundance of sunlight throughout the whole basement. I would have this room ten or twelve feet high in the clear, and the bottom should be thoroughly underdrained. Then the floor should be grouted and covered with cement or flagging, so that no leakage or accumulation of steps is possible. Ventilators

with wickets should be arranged, leading to the rooms above or to the roof. Such a basement would add very much to the capacity of a dry-house, and by attention to drainage and ventilation, may be kept at a low temperature during hot weather. It may be provided with hot water for heating if necessary, the pipes connecting with the boiler so arranged that heat may be supplied at any time with little expense. Here I would place at least a part of the cheese made in hot weather, and all such cheese as could not be readily marketed at a good price.

Supposing every factory had a cool place for storing but 200 cheeses in hot weather, the quantity in the aggregate would be very considerable.

There are over a 1000 factories in the State of New York alone—say that there are 1,500 in all—that can store 300 cheese each above present capacity, the gross amount would be 27,000,000 pounds. This amount kept from the markets in hot weather, safely kept without fear of deterioration, but retaining flavour and growing better in quality, would so relieve the trade that good prices would probably result on those shipped.

I would not advise the keeping of cheese at any time when fair prices can be obtained.

Then I would adopt the Crosier plan of leading the cold air from the ice-house. In this plan two conductors go down from the upper part of the ice-house. They are made of boards 8 inches wide and an inch thick, with holes bored in them. These holes allow the cold air to enter from the ice, and it pours in a stream from the mouths of the tubes into the room. The temperature of the air as it comes from the tubes is about 35°; with thick walls and high windows he is able to lower the mercury to 62°, and even lower in the hottest weather of July. Sometimes he closes one tube; the draft is strongest in the hottest weather. By this arrangement and the hot water pipes, the desired temperature may be secured throughout the season.

I do not pretend to give the best plan for securing a uniform temperature. I give that which is comparatively inexpensive and which has been found to be practical, to show you that such an arrangement is within the reach of every factory, and that this matter of controlling the temperature is not so difficult as dairymen have been led to imagine. By this simple arrangement, probably the room immediately over the basement (if the outer walls were properly constructed), could also be made cool enough in hot weather.

I would have every factory have store room sufficient to hold all the hot weather cheese, so that at no time to be forced to sell for want of room.

Now, I have tried to show you some of the advantages that would result from the proper curing of cheese, and from having enough store room to hold a certain amount of hot weather cheese during hot weather.

Let me illustrate how this course would likely affect the markets. In the first place, the quality and flavor of the cheese would be improved. In the second place, by withholding a portion of your stocks, and by not crowding the market at a time when it is a fearful task for dealers to handle large quantities, you will be able to maintain a decent price for what you do sell. This natural consequence is a law of trade.

GOOD MILK.

I have said that our great fault in American cheese making to-day is in the curing of the cheese. I have said that with proper attention to curing, and with only ordinary skill in manipulating good milk, a first-class product can be made. I wish to call attention to that part of the affirmation expressed in two words—GOOD MILK.

We have a great deal of talk in New York about fancy cheese and high skill in cheese making. Some factories have a great name in this respect. When an experienced cheese maker, who is attentive to his business, gets off the track, his trouble generally arises from imperfect milk, unsuspected at the time of its delivery. I do not mean imperfect milk, resulting from want of cleanliness in dairy utensils and the general care of milk after it is drawn from the cow; that matter has been discussed from time to time at our dairy conventions, and farmers ought to be pretty well informed upon the evil effects of such filthy practices. Dairymen, it is true, are not up to the mark in this respect, for there are vast quantities of cheese every year injured by these means. But you will understand that among the gilt-edged factories this matter of cleanliness is becoming more and more rigidly enforced among patrons.

Outside this, perhaps the most prolific cause of bad milk results from cows drinking the water of stagnant pools, tramping through swales of mud which are alive with filthy organisms of decomposing vegetable and animal matter.

I need only refer you to a few facts by which milk may be spoiled, while the dairyman suspects nothing wrong.

INHALING BAD ODORS.

Experience and scientific investigation have established the fact that milk taints in the cow's bag simply on account of the cow inhaling bad odors while at pasture. This taint may not be perceptible the moment it is drawn any more than the physician can detect small pox in a person recently exposed to that disease, but the seeds or germs of putrefaction may be there, and in the case of the milk begins to give trouble to the cheese maker before his curds are ready for the press; or if he gets the curds into press without difficulty, the cheese not unfrequently shows an early taint, decays quickly, and turns out bad.

MILK TAINTED BY DUST AND BY BAD WATER.

I have seen numerous cases in which the milk has received a taint from particles of dust falling from the cows into the pail while milking. (The speaker here referred to two notable instances of this cause of bad milk that had come under his personal observation.)

I alluded in my report upon English dairies, made before the American Dairymen's Convention in 1866, to the character of English milk as cleaner than ours, and I attributed the fine flavoured cheese of England in great measure to this one cause.

CONCLUDED NEXT MONTH.

Str.—Where can I procure from fifty to one hundred of what is known as the Silver-leaf or Abele tree? B. D., Brant.

We cannot inform you. Perhaps G. Leslie, of Toronto, or Ellwanger & Barry, of Rochester, may be able to supply them.

IMPORTANCE OF THOROUGH CULTURE.

But very few farmers in our country realize the importance of thoroughly cultivating the soil; yet the soil is one of special interest, and one deserving the attention of every agriculturist. Under the system of feeding, which is generally practiced in this country, the land wears out and the crops diminish in quality and quantity from year to year. Although nature has furnished man with a soil of virgin richness and fertility, it cannot continue so while we draw from it yearly our vast resources of food and clothing. The soil must be renovated, and its fertility renewed, or it will cease to yield its increase for the supply of our wants. Money and labor must be expended upon it, and in order to develop the resources that nature has imparted to it, it must be well tilled. There are farmers with but a few acres of land, which they thoroughly cultivate, and make more money than those with large farms cultivated in the usual manner. And what has been done in a few instances, may be done in many more. The maxim, "What is worth doing at all is worth doing well," is worth the attention of every farmer; as it is far more profitable to thoroughly cultivate a small farm, than to go over in a slovenly manner a larger one. Success is gained by making capital pay largely.

Poorly cultivated soil may look as well to the superficial observer as when the work is thoroughly done, but it does not so well answer the ends in view. The seed sown in such land springs up, but in case of drouth they soon wither away, because they have no deepness of earth, and a small crop is the result. But where the ground is well broken up and worked over and over, it is in the best possible condition to answer the ends of cultivation. Heat, and air, and moisture penetrate easily through the loose particles, and favor the germination of the seed as well as the after-growth of the plant, while if drouth intervenes, vegetable growth is hardly checked by it, as the roots strike out wide and deep in the trenched soil, and are independent of the state of the weather on top of the ground.

The extreme high price of farm produce during the past few years has induced many farmers to plant more land than usual; but the present high price of labor, with the downward tendency of prices, should now induce them to cultivate less, and that in a more thorough manner. I believe that the same amount of the various crops may be grown on fifty acres that is now grown on one hundred, if every available source of manure is resorted to, and every portion of our farm thoroughly tilled. Let every farmer, then, thoroughly cultivate all his farm, using manure unsparingly, and making it his aim to get the largest possible crop from every acre cultivated.

CENTRAL NEW-YORKER.

Correspondence.

APIARY.

WINTERING BEES.

Much has been said on the subject and little light offered to the beekeepers of Canada. In the first place, what is the requirements of a stock of bees to stand the changeable winters of this country? We will sum it up in one word, "Strength," that is, plenty of bees and plenty of honey, let their house be what it will. We find bees living in trees in the most exposed places, with large openings even at the north side of them, and living from year to year and throwing off swarms just as early as those kept in houses, pampered and punished for the want of liberty. Bees when confined to their hives are always uneasy and striving to get to the light. Put them where you will, in-doors or out, open them and they are contented; no fear of cold as long as they are dry, but just as soon as damp gets in around them there is danger whether they are indoors or out, but they cannot stand cold where there is damp no more than any other animal. There has been a great deal said about bees going into a dormant state. Let that state be what it will, I find them ready to defend themselves when the cold outside the hive registered 23° below zero. I have known them to winter on their summer stand, exposed to all winds with an inch hole open on the top of the hive; and why is it? because they are dry. Bees left on their summer stands when winter sets in, throw off steam, which congeals around the walls of the hive until the whole thing is hermetically closed. Care should be taken in regard to openings in the bottom of the hive where sleet cannot close up. Strong stocks sometimes perish for want of air, when a warm day comes the heat of the bees and the sun outside the hive causes the ice to melt and fall to the bottom board, where dead bees, etc., should be removed, then when cold sets in the frost and wind makes the whole thing dry, in the meantime the bees move around to their stores and supply themselves, and if quite warm they go out to discharge a necessity which, if deprived, they will smear the hive. Some may say many bees are lost on the snow. If bees are kept in double-walled hives and placed in the open ground exposed to the wind very few bees will leave the hive, unless it is very warm. What few bees may fall on the snow, which are mostly old bees that have lived their days out and take this means of getting out of the way, are no loss to the stock. They would have died if they had been closed up in the hive. Weak stocks lose very few bees when left out in the winter. If bees are kept indoors they get no benefit of the sun and wind, consequently they get damp and require closing up, which makes them uneasy and consume more honey. If the cold gets at them they cannot stand it when damp; if in a warm place the same amount of steam arises which molds and saturates the whole apartment, and when set out in the spring are not in a condition for early breeding, and fail to throw off swarms sufficiently early to be valuable.

Cobourg, Ont.

B. LOSEE.

BUILDING.

TO BUILD A WARM HOUSE.

Sir,—Will you allow me to tell you how to build a cheap wooden house, and one that can be cheaply kept warm, which is much desired in a country where the cold is so severely felt as in Canada, and where firewood is no small item of necessary expense?

Let a frame house be built as usual, with this exception:—Instead of studs of 4-inch scantling, use 4-inch boards from 6 to 12 inches wide, as you may choose, and about 15 inches apart. On the outside it may be rough-boarded, clap-boarded or plastered, according to fancy. Then on the inside board it with 4-inch boards, cracked as if to plaster, but as each board is put on let all the cracks be closed tight as if the boards had not been split, being careful that the edges of the boards exactly match each other. As each board is nailed on, stuff (by hand) all the open space between the outside and inside quite tight with "salted straw," prepared the previous day in a pile, with a little water thrown on to dissolve the salt. If cheapness is desired, cheap cotton may be used to paste on the inside boards, using the paste very freely. If the cotton is well put on the inside ceiling and then papered it will be equal to a plastered wall in every way, and cannot be detected without close examination.

The advantages of this method are cheapness, and, if done right, no cold will pass through; it is as cool in summer as a brick wall and equally warm in winter. No rats, mice or any other vermin will enter it at all, and fire will not burn it. I have seen a house burnt down, leaving the salted straw standing, a blackened mass, while the boards of the ceiling were burnt. I know that the idea of using straw is at first really frightful, but the objection is only in imagination. Tan bark and saw dust have been used, but proved very unsatisfactory; also, brick and mortar, but they are rather too expensive. I do not know of any real objection to the use of salted straw except an unfounded prejudice.

GANANOQUE.

Kingston, 26th Jan., 1872.

We presume our correspondent intends the cracking or splitting of the boards to be done for the purpose of preventing large seasoning cracks from tearing the canvass. It is our belief that the plan would be very valuable in many places.

GOOD WORDS.

COMPLIMENTARY, ETC.

Sir,—Please find enclosed \$3 for your highly-esteemed ADVOCATE. I feel as though I and my family could hardly get on without it. I think that every farmer should peruse its pages. I also admire the stand you take respecting the Agricultural Farm about to be established in Ontario, and sincerely hope that the present Government will consider the question, and spend the money to a much better advantage by increasing the grant to Agricultural Societies, and thus enable us to extend our prize list, and give prizes for the best cultivated farms, farmyards, and other improvements. You may hear from me again.

J. R., Thorah.

Beaverton, Feb. 3, 1872.

We touch on political questions affecting our agricultural interests, but do not wish to interfere in the strife between Reformers and Conservatives. The political platform on which we stand, for which we are fighting, and have always been found on, is FARMERS' RIGHTS! Our rights and interests have not been as well looked after or guarded as many other interests. This paper is for farmers to express their opinions in. Should we retire from the field of publication we doubt if you will have an agricultural paper published in Canada which is not supported by a political party and for political purposes. Use the Farmers' Advocate while you have it; the time may come when you will have it only in name.

TO FARMERS' SONS.

I say, boys, look here! Why should the old hands monopolize the whole spirit of the correspondents' space in this valuable journal? We have here a paper specially devoted to the agricultural interest, and we gather from the frank and earnest views of its Editor that any communication touching the progress of the agriculturist is acceptable to its columns and will be courteously admitted. The idea has struck me with some force that we (the sons of farmers) might employ our latent abilities and budding ideas for one another's advantage and improvement by entering on a communicative correspondence through its columns. The opportunity is seasonable and should be turned to good account. There are many—indeed, most of us—who have spare time upon our hands these long winter nights which might be devoted to useful employment, to profitable occupation and in applying to a practical use the theories inculcated at school. What, then, is better for this purpose than to sit down and write a letter, embracing some practical idea that might have been suggested to our minds during the work of the day? If we are in error or if we are correct on any subject we know by bringing it into public notice that it will attract attention, and produce a corrective or affirmative result. If we are at fault in conjecture upon any little matter of calculation or detail, destined maybe for our future life, youth is the best period to enquire. Store the young mind with facts that will carry conviction for usefulness. Let us begin then and establish a character for improvement by writing our current ideas to the ADVOCATE. If we are not perfect in etymology, syntax or prosody, letter writing and its corrected form in print are the best incentives to stimulation. The time will not be lost if it only teaches us where we committed an error, and what to improve in future cor-

respondence. What say you, Mr. Editor? will you give us encouragement? That letter writing will strengthen our ideas and bestow a reasoning power at maturity is the firm conviction of one who is anxious to see the farmers' sons persevering and advancing with the times, and that this effort may be only a precursor to much intelligent correspondence is the aim and object which induced your obedient servant to write. Believe me, Mr. Editor, yours, &c., ALPHA.

SUGGESTED ITEMS—NO. 2.

FRIEND ADVOCATE.—I am very much pleased with your January number; it is far ahead of your former issues, though they were good. In fact, your article on music is worth the year's subscription. It is a fact us farmers seem to forget that man is capable of such high and noble enjoyment as music will give to men above that of the brute creation, and I believe no one thing will give to children that love of home that sons and daughters ought to have, as music, vocal and instrumental, blended harmoniously together. How sweet to the farmer it would be when he returns home from the fields to have his thoughts lifted from the earth and its cares and toils, and to cultivate those organs of the mind, that had been idle during the time he had been at work, those organs which Phrenologists call "Ideality," refinement, taste, purity, and "time," sense of harmony, and melody.

It has been thawing this few days, and in some parts of Ontario it will be bare ground. Cattle will roam over the fields if allowed. It is bad policy to let cattle go where they please, for two reasons; first, as cattle want something sweet, they will pick the grass roots, so it will not grow so well again. The ground being soft they will cut it up bad with their feet, making a bad bottom to mow over. Second, they will not eat their food near so well when they have got a taste of the grass. They should be shut up in a yard except when taken to water, and I believe most cattle-breeders advise to water twice a day. I believe them to be right; but how many cattle get a good, quiet drink once a day? Some suppose that in winter, more especially in the cold days, that cattle do not need any water. But it is a great mistake. They should not be out long, but should have a good drink, for cattle are dry in winter as well as summer. Have your water in the yard if possible. Cattle like spring water in winter, as it is not so cold, in fact spring water is warm in winter. We did not let our cattle on the meadows last fall, but cut some of the second crop for seed. I have not threshed it yet and do not know how it will yield, not big I think. The seed seemed full and plump, but rather small in size. I can get it threshed and cleaned for 75c. per bushel. We expect to have as much as will do ourselves to sow, and pay for the threshing, besides the straw will be better than nothing this season when feed is so high.

Since commencing these items it has frozen very hard, and the roads are very icy; even about the yards it is dangerous for cattle, especially cows heavy in calve. Do not allow young horses out when your cows are out, as they will run the cows and hurt them more or less. Cows in calve should be carded once a week, free scope at salt under cover somewhere in the yard, and one quart of pea or corn meal once a day, besides their usual food. This will keep them in good trim, and you will get it back next summer.

You head my items with "What I Know of Farming;" but before I am done you had better write "What I Don't Know of Farming," and most of your readers will come under that head too. I would like to ask a few questions for my brother farmers to inform me on. What is the cheapest and best method of pulling, cleaning and putting into a fence, pine stumps from 20 to 50 inches in diameter. Soil sandy loam. What is the best way to secure the growth of young forest trees? Has any of your readers ever fully tried salt and plaster for turnips and other roots, and the best mode of applying the same? I would like some of your readers would give us their opinion on these subjects. HORACE.

Rockton, Feb. 13, 1872.

IMPLEMENTS.

NEW SUBSOILER, ETC.

Sir,—I would feel obliged if you would inform me through your valuable paper what the cost of Lamb & Warren's New Subsoil Attachments are; if they can be used on any common plough, and if there is any plough that works without a mould-board and has a share in place of two cultivator teeth. Let me know if your McCarling wheat grows with square heads like barley. By answering these few simple questions you will much oblige.

A NEW SUBSCRIBER.

Annherst Island, Feb. 5, 1872.

In answer to the above we may state:—1st, the cost of Messrs. Lamb & Warren's Combined Plow and Subsoil Attachment is \$12. 2nd, it can be attached to any

plow, both the wheel to lighten draught and the Subsoiler being arranged for use with any plow at present constructed. 3rd, the advantages claimed for Lamb & Warren's Subsoiler are that it is a complete pulverizer, and that with one team of horses the plow will at least make a furrow 6 inches deep and the Subsoiler 6 inches more, making a depth of 12 inches in all secured without any extra cost for labor. 4th, this attachment has the advantage over all others of pulverizing the earth by the motion of the plow, causing the mould to pass through between the two coulters, opening without and duly disturbing the soil, leaving a porous subsoil as a receptacle for the surplus moisture and a storehouse to nourish the roots of growing crops. 5th, there is a Halton Subsoiler occasionally seen in use which is of heavy draught and is used with from 2 to 4 horses. This Subsoiler has to follow after the plow; tears up the furrow to a depth of 4 to 8 inches and from 7 to 9 inches in width. It is inconvenient for general use and has the additional objection that it closes the pores of the earth and prevents the moisture from filtering through. Messrs. Lamb & Warren, the patentees of the Combined Plow and Subsoil Attachment, will no doubt be happy to answer further inquiries on addressing them at Strathroy, Ont.

DOMINION STUMP EXTRACTOR.

Sir,—Please inform me how that Stump Extractor works, what is its size and what they are sold at. I have a great many hemlock stumps scattered all over my place and I don't think they pay. I think by the appearance of the Stump Extractor that it would clear them out. Please send the terms as I am thinking of getting something of that sort. R. CATHERS.

Molesworth, Jan., 18, 1872.

The Machine is worked by a span of horses; a double pulley is attached to the lever, the horses walk steadily off, and up comes the stump if not a very large one. For very large stumps two levers are used, the stump being hitched to several times and drawn up by degrees. It is the quickest and best machine we have seen, and we believe you will be well satisfied if you procure one, indeed we have not yet heard of anyone being dissatisfied with them. The terms are generally cash, but short credit is sometimes given, or part down and a longer time for the remainder.

THE FARM.

SOWING RAPE.

Sir,—I wish to be informed as to the best time to sow rape for summer pasture and how much seed is required to the acre; also if it will answer to sow it on summer fallow that is intended for fall wheat. If you or any of your readers will answer the above queries, I will feel much obliged. D. K.

Wilfrid, 15th Feb., 1872.

"D. K.," or any other person asking questions, should send their names to us, as in such cases, the name should appear. What harm will it do you? It is different to a person writing an article, for in that case he may be attacked, and it is well to have a shield. If you are ignorant about any subject, however trivial it may be, it does not show your wisdom to ask and remain in darkness; it shows that you are too haughty to learn, which is a bad fix to be in, and we have sometimes found it so to our loss. Sow the rape at turnip seeding time; you will not get half the good of it if you sow it in summer fallow. As it grows late, like the turnip, perhaps some of our readers can send us an article on its culture.

We received a registered letter containing \$1, with Kingston post mark, Feb. 15. The sender will please give his name, in order that we may credit him with the amount.

DOES FARMING PAY?

Sir,—In the September number of your paper there is an article with the above heading. Now, I have read the article, and at

first I expected to explain his mind, satisfied himself, best writer in the world, say that he is a ship. I would reckon one far more worth a cent on a little too if as many more with the same knowledge, and one failure in other business in Canada would know the lesson of other class is obvious; if make a living one at farm to imagine it. Far from it as intelligent which makes keep up the diligent men don't know for if they produce surplus they would But if I subject, I induce "Y. out the reason is not mad hundreds world with with, and independent good farm them so, a farm. The one can do common so pays?

We are letter, at "Young good one we hope the subject Six months better la fair space

HORSES.

Sir,—McTavish cause and his tongue are broken the bit of the new tongues We have section, Ingen

I wish you in King of as well large l Early is muc is qui out we also v

I wish you in King of as well large l Early is muc is qui out we also v

I wish you in King of as well large l Early is muc is qui out we also v

I wish you in King of as well large l Early is muc is qui out we also v

I wish you in King of as well large l Early is muc is qui out we also v

first I expected the writer to follow it up and explain his meaning, but he appears to have satisfied himself when he told that he was the best writer in the school. I will venture to say that he is not the best farmer in his township. I would recommend him to open his eyes and look around him, and see if he can reckon one farmer who is not better off now than he was ten years ago, for every ten who are worth a dollar for every cent they were worth at that time. Perhaps I am laying it on a little too heavy, but I am certain that if as many men go into any other business, with the same capital both in money and knowledge, as go into farming, where there is one failure in farming there will be ten in any other business. Let farmers be educated in their business and there need not be a farm in Canada which does not pay for working. It is a notorious fact that farmers as a class know the least of their business than any other class in the country, and the reason is obvious; if a man does not know enough to make a living at anything else, he can make one at farming. Now I do not want anybody to imagine that I think all farmers ignorant far from it; I know there are among farmers as intelligent men as among any other class, which makes it harder for the ignorant to keep up their heads as they have those intelligent men to compete with. But really I don't know but that I have made a mistake, for if they had not the intelligent ones to introduce superior stock, seeds and implements; they would soon go to the d-dogs entirely.

But if I do not mind I will get on to another subject. I started this in order to try and induce "Young Canadian" to try and find out the reason why farming as a general thing is not made to pay, and how anybody can see hundreds of farmers who commenced the world with nothing but their hands to labor with, and not so long ago either, who are now independent as far as having plenty of money, good farms, and good buildings will make them so, and who never done anything but farm. That such men exist all around us no one can deny. Then how in the name of common sense can any one ask if farming pays?

We are much pleased with "Rustic's" letter, and we hope it will wake up "Young Canadian." The subject is a good one and gives both a fair field, and we hope "Young Canadian" will not let the subject rust as long as "Rustic" has. Six months for a reply is rather long, but better late than never. We will give a fair space for argument.

HORSES PUTTING OUT THEIR TONGUES.
 SIR.—In reading your paper I see that Mr. McTavish, of Lobo, enquires what is the cause and how to prevent a horse from putting his tongue out. The cause is that when colts are breaking they get into the habit of getting the bit under their tongue, to prevent which the bit must be made to bear against the roof of the mouth, so that they cannot get their tongues over the bit.
 We have started a Farmers' Club in this section, and I think it will be of great benefit.
 THOS. HENDERSON.
 Ingersoll, Feb. 13th, 1872.

SEEDS.
SEEDS, TREES AND PLANTS.
 SIR.—The garden seeds I received from you in the spring have all done well. Bresee's King of the Early potatoes did not turn out as well as they were represented; they grew large but were quite soft and watery. The Early Rose variety, planted in the same soil, is much better both in size and quality and is quite as early. The Prolifics have turned out well both in size and quantity; they are also very dry.
 I would recommend James's Improved Scarlet Carrots to all your readers who grow carrots in their gardens; they also answer well for a field crop, being much before the Early Horn variety. And I must say that farmers who have not a nice vegetable and flower garden located near their houses lose much both in taste and usefulness. I have always had both, and I would be quite at a loss how to spend a spare hour if I had not my flowers and cabbage plants to look after morning and evening, when the more arduous tasks of the farm do not interfere.
 My experience in apple trees has been very little since I came to America. Four years last fall I ordered two dozen and a half of

apple and pear trees from the Windsor nursery, which were well packed and addressed carefully, but owing to the carelessness of the agents of the "Lady Head" steamer, they were left in Quebec for two weeks in the first of November, and when I got them they were all frozen hard. I laid them in a cellar and covered the roots with earth until the spring, then planted them out, but only one pear and five apple trees lived. I find that early apples are the only ones that do any good below Quebec. The late kinds do not ripen the young wood sufficiently to stand the frost in winter. In the spring of '70 I ordered from Mr. James Dougall a few early kinds, which are doing very well, the frost has not injured the young wood in any way. The late kinds make no advance, having to cut the young wood back so much every spring. Even the St. Lawrence apple does not ripen its young wood.

W. M. Evans, Esq., of Montreal, advertises a few kinds of apples in his catalogue, but does not say whether they are standard or dwarf. With the exception of three kinds they are all late and winter varieties. Had they been early kinds, I would have advised those wishing to purchase apple trees below Quebec to have done so from Mr. Evans, as the freight is always over double the first cost of the trees from Ontario, and also great delay in forwarding it.

On the 12th of September we had frost which froze down potatoes, peas, beans, also grain which was backward in ripening.
 The potatoes were not half a crop, having been struck so very early with rust. Grain and hay crops very good.
 Yours truly,
 JOHN G. FAIR.
 New Carlisle, Q., Jan. 19, 1872.

CROWN PEAS.
 SIR.—The year before last I tried a few of the Crown Peas and did not think much of them at that time, but last year I tried them again, and threshed 35 bushels from only three-quarters of an acre.
 THOS. ROBSON.
 Vanneck, Feb., 1872.

M'CARLING WHEAT, ETC.
 SIR.—I procured a pound of McCarling wheat from you last spring which yielded me 3 pecks of clean wheat after threshing, and was of much better quality than the seed from which it was sown. I think well of it, and expect it will be an acquisition to the farmers of Canada. The New Brunswick oats I received from you also did very well, yielding more than any other variety I have sown.

You are doing much good to the country by the dissemination of seeds from your Emporium and the spreading of information through the ADVOCATE. I am surprised that so many of the farmers do not subscribe for your paper and that many of them patronize American papers in preference to their own independent Canadian paper which has done so much for their interests. Do not be discouraged, Mr. Editor; you will yet have the country's acknowledgment of the services rendered through the Emporium and ADVOCATE.
 Yours truly,
 WM. MCKENZIE.
 East Nissouri, Feb. 1st, 1872.

CROWN PEAS.
 SIR.—The Crown Peas I got from you have done extremely well. They yielded just one-half more than my golden vines, the yield being 38 bushels to the acre. The other new seeds have done well.
 J. R. TODD.
 Kilsyth, Feb. 16, 1872.

THE POTATO.
 SIR.—The selection, the cultivation, and the propagation of that valuable esculent root, the potato, appears to be an absorbing topic of discussion in every agricultural publication. The vaunted qualities, their choice perfection and varied charms come in for special observation. Now, sir, I wish to raise a theory that seems, in my perusal of these discussions, to have been omitted, and that is how long or how enduring are these qualities supposed to exist? Echo answers, yes, how long do these monitors for methods of planting and the selection of soil for planting imagine the standard quality is to endure? Reason, pausing for a reply, insinuates (a fact apparently) that it can only endure so long as nature endures to feed this perfection, and no longer! Having fulfilled its mission to a given degree and maturity having brought its desired end and quality to a standard of excellence, may there not be some reason for the impression that it then falls into a down-

ward path of degeneracy and that when the "sear and yellow leaf" of its organization becomes enfeebled in its decline, that the decay ensues; and hence the disappearance from our midst of so many well-known selections, whose approved choice for excellence and notoriety were once as "familiar as household words," but have now vanished from reality like a pleasing dream. In my humble opinion—and I only write for the purpose of suggesting a feasible cause—science must fix its grip to confound the argument of the potato being permanently unchangeable in its entire perfection. It must show it to be a temporary shadow of imagination and a fallacy to suppose that any laws of cultivation or careful selection of adapted soil will preserve or prolong its destined agency. If this is the cause cannot the remedy apply to a culture by perseverance and propagation from the seedling?

If these remarks, Mr. Editor, should affect any instructive comment for advancing the growing demand for this root, my aim will be rewarded, and, if you wish it, may revert again to the subject.
 WILD VINE.
 Westminster, Feb. 17th, 1872.

We thank our correspondent "Wild Vine" for his contribution. The very principal he aims to establish appears to be the one that we have labored for the past seven years to bring before the public, that is, the actual necessity of having new varieties of seeds. We shall be pleased to have more from the same pen.

SEED REPORT.
 SIR.—The 4 ounces of McCarling Wheat I got from you last spring did first rate. I have 6 lbs. and some ounces of it and it is beautiful grain. It was sown near some other wheat and had no extra chance or care. The Norway Oats I got from you two years ago are, in my estimation, a humbug. They yield no better than other oats, nor can I see any difference either in growth or looks. The Surprise Oats appear to be a prime article, good and heavy, but I do not think much of either the Norway or the New Brunswick Oats, although the dry season and the soil may not have suited them. The garden seeds I got from you were fresh and all of them grew. They are the first good seeds I ever got.
 DAVID JOHNSTON.
 Whittington, Feb. 16, 1872.

HORTICULTURE.

THE ORCHARD.
 SIR.—You will recollect when you paid me a visit last summer that, at your request, I promised to try and write short articles for the ADVOCATE. Hoping you will pardon me for neglecting it so long, I will now give you some sketches from my Diary for 1872:
 Jan. 5.—Took a trip twelve miles to see a friend and counted as I rode along 35 orchards composed mostly of young trees. Twenty of these orchards had the gates open or the fences thrown down, so that cattle could roam in them at will. Nearly all the trees were more or less browsed, and one orchard had pigs, colts and sheep in it. I counted eight trees about five inches in diameter, with the bark gnawed off three to five feet high. Such sheer negligence as this to an enthusiastic fruit-grower seems almost criminal, and I must say that I felt like getting out of my sleigh and going in search of the owner and giving him what some would term a good blowing up. Only five orchards out of the 35 could be said to be in a prosperous condition, and I think I am not far astray in saying that not more than one tree in twenty that are planted out lives to produce a fair crop of fruit.

There are in every section of the country some careless ones who fail in almost everything they undertake; but such rarely ever have enterprise enough even to attempt to grow an orchard. There are farmers who succeed well in other respects who, nevertheless, utterly fail to raise a good fruit orchard. Now, the question very naturally arises, why is it that farmers should thus waste their time and money in planting fruit trees, and then carelessly allow them to be thus destroyed. I will endeavor partially to answer the question and point out what I believe to be some of the reasons:

1. Many plant orchards without first counting the cost, and seem to think they should grow like the trees in the forest, without further care. But they should remember that scarcely one in a thousand of the seeds that germinate in the woods ever mature a large tree. There is a proverb that "Eternal vigi-

lance is the price of good fruit." If the author had said that "Eternal vigilance is the price of good fruit trees," he would not have been much astray, for he that has tact and skill to raise and manage fruit trees properly and have them in the best possible condition, will not fail to grow good fruit.

2. Many fail for want of a good fence. A straight fence is best; as worm fences afford shelter for mice, which often gnaw and destroy the trees. The best plan is to fence well first and plant afterwards.

3. Many fail because they do not protect their trees from mice in winter. The best plan and the cheapest is to take four feet lath, cut it in two feet lengths, set on their ends around the tree the number of pieces required, which fasten at the top and bottom by lapping a piece of fine wire around; give it a twist to hold it in place, and your trees will be safe.

4. Many make a mistake by putting the orchard where they will have to pass through with teams to get to the house or barn, or perhaps they have a narrow lane alongside which gets filled with snow; the orchard fence must be thrown down to get out, and in a few hours the labor of years is lost. The farmer's road to his buildings should be at least six rods wide.

5. Many failures are caused by planting in wet land without drainage. Fruit trees will not prosper with wet feet.

Lastly, There are many cases of failure through ignorance in planting, carelessness in plowing and so barking the trees or breaking off the roots. The best time to plow and harrow a young orchard is before the leaves are out in the spring, or after they fall off in the fall, as then the bark is set to the wood. Every farmer should understand how to prune, graft, &c.
 S. H. MITCHELL.
 St. Mary's, Feb., 1872.

Selected for the FARMER'S ADVOCATE.
 "I WILL BYE-AND-BYE."
 You may as well resolve you'll never do it! I am out of all patience with these "bye-and-bye" folks. "One hour of present tense is worth a week in the future."

Why, I know a bachelor as well calculated for matrimonial felicity as every virtue and every accomplishment can render him; but he has been putting off the happy time from one year to another, always resolving that he would marry "bye-and-bye" and "bye-and-bye"—till the best ten years of his life are gone, and he is still resolving, and I fear will die the same. He that would gather the roses of matrimony should wed in the May of life. If you only wish the withered leaves and thorns, why put it off till September?

—Procrastination is the thief of time.
 I made a visit last winter to see my old friend. When we had put our horses into the stable he took me to his barn floor to see some of his white wheat he had just threshed. I observed to him that one of the boards of the barn was nearly falling and he had better nail it. "I will bye-and-bye," said he. Things about the farm looked a little as though "bye-and-bye" folks lived there. Next morning the boys came running in with the sad news that an unruly bull had torn off the board, and all the cattle had supped and breakfasted on the white wheat. An old brindle cow in the drove was foundered so bad that she died. Now, three or four nails worth a penny and five minutes time would have saved the life of old brindle, and the white wheat into the bargain. "Remember a stitch in time saves nine."

Passing by a neighbor one day last spring I saw that his wife had made a fine garden, and the early peas were springing luxuriantly above ground. "Neighbor, but there is a hole in your fence which you had better mend, or the hogs will ruin your garden." "I will bye-and-bye," said he. Happening to pass there a few days after, I was half deafened with the cry of "Whoa, whoa—stubby, stubby!" A drove of hogs came along, and while my neighbor was taking a nap they had crawled through the broken fence and destroyed the labor of a week. "Never put off till to-morrow what you can do to-day."
 A. A.
 Bury's Green, Feb. 13, 1872.

The next will be a short lecture for the month of April.

From careful experiments it has been discovered that plants slightly watered every day often perish, and always become dwarfed; whereas a good soaking given twice a week almost invariably proved very beneficial. Thorough soaking of the ground two or three times a week is much better than the same amount of water applied in dribbles daily, only sufficient to wet the upper surface, but not the under strata of earth contiguous to the roots.

Youths' Department.

CORRECT ANSWERS.

RIDDLES.

Alex. Rivers, Berlin; Sam. Wherry, Newry; Maggie M. Potter, Berlin; C. L. Somba, Thamesville; Ellen Camther, Glenvale; Elizabeth McKewan, Sutherland's Corners.

ILLUSTRATED PUZZLES.

Elizabeth McKewan, Sutherland's Corners; C. L. Somba, Thamesville; Alex. Rivers, Berlin.

CAUTION.

Alex. Rivers, Berlin; C. L. Somba, Thamesville; Elizabeth McKewan, Sutherland's Corners.

GEOGRAPHICAL PUZZLE.

Elizabeth McKewan, Sutherland's Corners; Ellen Camther, Glenvale; C. L. Somba, Thamesville; Maggie M. Potter, Berlin; Alex. Rivers, Berlin.

ILLUSTRATED REBUS.

Alexander Rivers, Berlin; Samuel Wherry, Newry; Maggie M. Potter, Berlin; C. L. Somba, Thamesville; Elizabeth McKewan, Sutherland's Corners.

WHAT IS HERE?

Elizabeth McKewan, Sutherland's Corners; Samuel Wherry, Newry.

WHAT DO YOU SEE IN THIS PICTURE?

Alex. Rivers, Berlin; C. L. Somba, Thamesville; Eliz. McKewan, Sutherland's Corners.

WHERE IS THE ENEMY?

Elizabeth McKewan, Sutherland's Corners; C. L. Somba, Thamesville; Maggie M. Potter, Berlin; Samuel Wherry, Newry; Alex. Rivers, Berlin.

GOOD ADVICE.

Alex. Rivers, Berlin, Maggie M. Potter, Berlin; Eliz. McKewan, Sutherland's Corners.

CROSS-WORD ENIGMA.

Elizabeth McKewan, Sutherland's Corners.

ILLUSTRATED REBUS.

Alex. Rivers, Berlin; Elizabeth McKewan, Sutherland's Corners.

HIDDEN ANIMALS.

Elizabeth McKewan, Sutherland's Corners.

Correct answers to Hidden Animals, which appeared in the Jan. number, were sent in by J. S., of Chatham. Look over that paper again, and you will find amusement in it.

Names of other persons who sent correct answers to amusements in Jan. number. They were omitted last month.

HIDDEN ANIMALS.

- 1. Rat. 2. Deer. 3. Hare. 4. Mink. 5. Moie. 6. Seal. 7. Zebra. 8. Horse. 9. Emu. 10. Liama.

ACROSTIC.

BY S. WHERRY, JUN.

Farming for profit and farming for wealth; And farming just for the good of your health; Riches and plenty you soon will possess— Might be ten thousand or just a mite less. If farming don't pay, I'll tell how it will; Now listen to me, and keep very still:— Get the ADVOCATE paper for one dollar bill.

ENIGMAS.

My first may be made of iron or wood, and is sometimes used as a term of contempt to describe a slow, stupid person; my second may be compressed into a second of time, or may include centuries; my whole is a kind of tax.

Divide an officer in our townships, and leave a combat and a cavern.

My first is something good to eat, And relished by the many; My next is unadorned and bare— Scarce welcome 'tis to any; My whole is hue diversified, Whether 'tis natural or dyed.



At Home



Starting for a constitutional before hand



Has no eye for the graceful or beautiful?



(Just taking another turn)



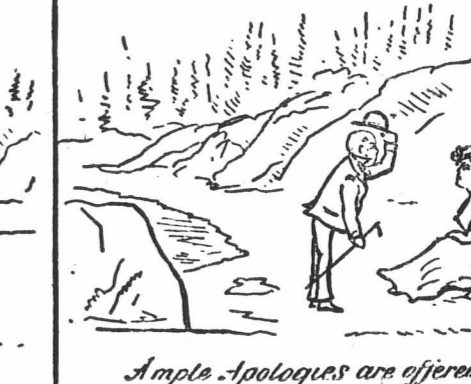
By Gum she had pretty eyes!



Don't feel hungry will sit here awhile



Sits Longer than he ought



Ample Apologies are offered



Next day



Next Week



Next Month Give me a nice little Wife, Cigars, Brandy & Champagne



Next Year

A LESSON TO WOMAN HATERS.

FRUIT REBUSSES.

- 1. A color and a pledge. 2. An interjection and to rove. 3. A tree that grows best in a sandy soil and a well-known fruit. 4. A domestic fowl and a small fruit. 5. A useless dog and to bluster.

ACCROSTIC.

Merry birds begin to sing, At the first approach of spring; Running streams and rippling rills Chase each other down the hills; Hail the glad return of Spring!

JAMES LAWSON.

A RIDDLE.

A farmer sends his boy to the smith to have a horse shod. The smith takes off the old shoes from the horse's feet and with the same old shoes he makes four new shoes, which he places upon the feet of the horse. The horse then being re-shod, the boy is sent home again, but takes the old shoes that were, in his pocket. How is this done? This is not original, but very old, though it may be new to young people.

PUZZLE.

Four people sat down one evening to play, They play'd all that eve, and parted next day; Could you think when you're told, as thus they all sat, No other play'd with them, nor was there one bet? Yet when they got up each gained a guinea, Tho' none of 'em lost to th' amount of a penny.

EPIGRAM.

When Eve brought us to all mankind, Old Adam called her woo-man, But when she woo'd with love so kind He then pronounced her woo-man. But now with folly and with pride Their husband's pockets trimming, The ladies are so full of whims, The people call them whims.

RUSSIAN PROVERBS.

For the benefit of our juvenile readers who indulge in the game of "Proverbs," we give this month a few Russian proverbs which are little known in this country:—"Go after two wolves, and you will not even catch one."

"A good beginning is half the work." "Trust in God, but do not stumble yourself." "With God, even across the sea; without Him, not even to the threshold." "Money is not God, but it shows great mercy." "The deeper you hide anything, the sooner you find it." "A debt is adorned with payment." "Roguary is the last of trades." "Never take a crooked path while you can see a straight one." "Fear not the threats of the great, but rather the tears of the poor." "Ask a pig to dinner, and he will put his feet on the table." "Disease comes in by hundredweights and goes out in ounces." "Every little frog is great in his own bog." "An old friend is worth two new ones." "Be praised not for your ancestors, but for your virtues." "When fish are rare, even a crab is a fish." "A father's blessing cannot be drowned in water, nor consumed by fire." "A mother's blessing will draw up from the depths of the sea."

THE PUZZLED DUTCHMAN.

I'm a broken-hearted Deutscher, 'Tis killed mit crief and shame; I tells you vot der drouple ish— I doesn't know my name. You dinks dis ferry vunny, eh? Ven you der shtory hear, You vill not vonder den so mooch It vas so shtrange und queer. Mein moder had two little twins, Dey vas me und mein broder; Ve lookt so ferry moech alike, No von ka vich from toder. Von ov der boys vas "Yawcup," Und "Hans" der oder's name; But den it made no tifferens, Ve both got called der same. Vell! von ov us got tead— Yaw, Mynheer, dat ish so! But vedder Hans or Yawcup Mein moder she ton't know. Und so I am in drouplein, I gan't kit droo mein hed Vedder I'm Hans vote's ish'ng, Or Yawcup vot ish tead!

—Our Young Folks.

Around the

This is real cosy quietly for once— reading, sisters knit, roost, and I writt ADVOCATE. I finit knitting work ab undertook the deli their little bed" and four. Such they are, to be sur to see if they coul Although it won't must confess we h floor. We weren' No sooner were t gowns than they r a game of bo-peep and round the ch I got them upstai of arms around m "I love oo, sister trotting along by tired now!" Alt me down to sleep and both turned los. Oh! those we do without th

I was feeling of the world and forget all care o childhood! and l person be who frolics and gam I beg ten thous some of my frien such commonpla and family; but so they will have Now, ladies, t try and make yo fortunate in the a great amount finished before potted babies w warm, tidy roo their hard day's too, of seeing t a cean dress, a I know it is h look and sp ak day over the v nothing but gr fires, an I ther beiler, so that attempt to sea hard, dear ist a pper, say this me t; keep a p home cheerful sometimes; bu have our rewar bands a d brot and they will b of our comfort bad company

SIR,—In dis tions of the fa the best and also does it outlay, if we sir, with reg country, whea finds a prett price. As to and peas, we them in Cana mers are not and they are per lb. I thi pronouncing will probably these have t mnton, whic Not much m Now, there i our hot sum sugar beet. dress at Ki of the conti nearly if not the market. this country capital wou the country, ton for the industry opense bene turers and c every-day us and if it cou and only a annually se it of the for our farmers be a saving

Around the Hearthstone.

This is real cosy now. We are all sitting quietly for once—father, mother and brothers reading, sisters knitting, the little folk gone to roost, and I writing to my dear friend the ADVOCATE. I finished that tedious piece of knitting work about an hour ago, and then undertook the delightful task of "putting in their little beds" two little sisters, aged two and four. Such mischievous little monkeys they are, to be sure! They had quite a scuffle to see if they could't tumble me on the floor. Although it won't add much to my dignity, I must confess we had quite a scramble over the floor. We weren't very quiet then, I tell you. No sooner were they arrayed in their night-gowns than they ran away from me; and such a game of bo-peep as we had under the table and round the chairs before I caught them! I got them upstairs at last, with one little pair of arms around my neck and little lips lispng, "I love oo, sister?" while the other little pet, trotting along by my side, sang, "Birdie, I am tired now!" After they had said, "Now I lay me down to sleep," one said, "Dat'll do now!" and both turned a sunset over the pillows. Oh! those little sunbeams! what would we do without them?

I was feeling weary and sad to-day, weary of the world and its ways; but who does not forget all care in the presence of innocent childhood! and hard-hearted indeed must the person be who cannot take pleasure in the frolics and gambols of kittens and babies!—I beg ten thousand pardons! I forgot that some of my friends object to my writing about such commonplace things as my own home and family; but I couldn't help it this time, so they will have to forgive me as usual.

Now, ladies, and womenkind in general, do try and make your homes attractive and comfortable in the evening. Supposing you have a great amount of work to do, try and have it finished before dark, if possible. Those big, petted babies we call men, are very fond of a warm, tidy room to sit in, in the evening, after their hard day's toil. They are also very fond, too, of seeing their wives and daughters with a clean dress, a smiling face, and a clear eye. I know it is hard sometimes for a woman to look and speak pleasant after working hard all day over the wash-tub, especially if she has nothing but green, wet wood to make the fires, and there is a hole worn through the boiler, so that the fire is drowned in the attempt to scald the white clothing. But try hard, dear sisters, and every evening, before supper, say this little prayer: "O Lord, help me to keep a pleasant countenance, and make home cheerful and happy." We need to pray sometimes; but let us persevere, and we shall have our reward by having our fathers, husbands and brothers prefer home to the club; and they will be kinder and more thoughtful of our comfort if kept from the influence of bad company and whisky. J. F. INCH.

BEEF SUGAR.

SIR,—In discussing or planning the operations of the farm, we have to consider not only the best and every means to raise a crop, but also does it pay us for our time, labor and outlay, if we do succeed in raising it. Now, sir, with regard to the grain crops of this country, wheat naturally stands first, and it finds a pretty ready sale at a fair paying price. As to the spring grains, barley, oats and peas, we have, in reality, no market for them in Canada to any extent; our hot summers are not well adapted to raising them, and they are seldom worth above one cent per lb. I think most farmers will agree in pronouncing this a very poor business. Some will probably say, Grow more roots. Well, these have to be converted into beef and mutton, which bring about five cents per lb. Not much money to be made in that line!—Now, there is a root crop for which I think our hot summers are well suited—I mean the sugar beet. The Hon. J. Skead, in his address at Kingston, says:—"In many parts of the continent of Europe, beet sugar has nearly if not quite driven cane sugar out of the market." Why should it not be so in this country? If some enterprising men with capital would start a few sugar factories in the country, offering farmers a fair price per ton for the roots, we should soon have a new industry opened up which would be of immense benefit alike to producers, manufacturers and consumers. Sugar is an article of every-day use in every family in the Dominion, and if it could be produced by native industry, and only a portion of the millions of dollars annually sent out of the country to purchase it of the foreigner diverted into the hands of our farmers and home manufacturers, it would be a saving most important to a new and

comparatively poor country like Canada. It has been started in England, and is going on successfully. The farmers there are receiving, I believe, one pound per ton for their roots, delivered at the factory, and have the option of loading back with the pulp from the roots at 12s. per ton; this most of them do, as it is excellent cattle feed.

I have ventured to make these remarks in the hope that some of your correspondents, more able to handle the subject, might take it up.
WILLIAM KING.
Port Robinson, Feb. 20, 1872.

—The following may be of interest to parties in Ontario who propose emigrating to Manitoba: The secretary of the United States Treasury has decided that an emigrant from the Eastern Provinces of Canada may pass with his team, vehicle, and household effects through the Northwestern States to Manitoba without payment of duty on giving his personal transportation bond, properly secured, on any route or in any manner he chooses. Circulars to collectors at ports of entry, giving full instructions, are in course of preparation, and will be issued in a few days.

VALUE OF ASHES.

It is a too common practice even with good farmers to let the wood ashes made during the winter season either go to waste, or sell it for a mere trifle to the soap-maker, who sends round his team to collect them. Their value as a manure to apply to grass crops or fruit trees is scarcely known. Usually they are sold for from five to ten cents per bushel, for soap-making; when their real value for manurial purposes, if kept stored away in a dry place till they can be applied to the land, is not less than forty cents per bushel. To the fruit grower they are worth even more. If the ashes are used for soap-making, and the potash contained in them thus extracted, they are then of little manurial value, though still well worth the trouble of spreading on the soil, for the sake of the mechanical effect produced, which is to make hard clay more friable, and light sand more compact. Mixed with Plaster of Paris at rate of a bushel of ashes to fifty pounds of plaster, the manurial value of the combined materials to pasturage or meadows intended for hay is fully double that of the plaster alone. In fact, we consider the addition of unleached ashes—especially if made from hard-wood—to the plaster, greatly increases its manurial action, by assisting decomposition, and, as it were, makes three values out of two. In the compost heap for garden use, or the manuring of fruit trees, unleached ashes play an important part, both in assisting to decompose the vegetable matter that goes to make up a large portion of such compost, and in giving what a plant needs, and without it cannot thrive, viz., potash. For fruit trees, especially when they are set in a good soil, it is not too good to be trampled under the feet of the cows, there showing equal to a good coat of ashes, spread here and there over the surface of the ground about them; but not piled up about the trunks as we have often seen. That is a common mistake, too much just when it is not needed in a case of little material value. Old orchards are particularly benefited by a liberal surface dressing of unleached ashes, which, in addition to acting as a manure to the trees, and destroying a great many of those insidious enemies that harbor in the soil.

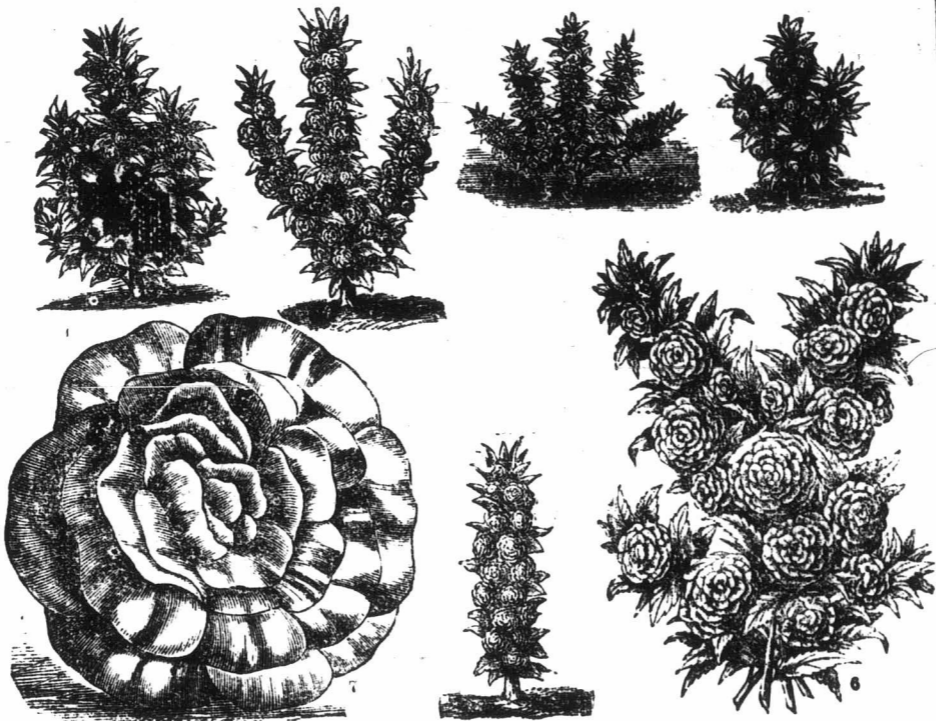
Coal ashes are of little value, if they should not be applied to the soil in any way. If the farmer's wood is fully an acre and the value of good unleached wood ashes, and make the trouble to go round collecting them in the towns and cities, they would find much easier sale and more valuable than many of the so-called artificial fertilizers they too often haul away their time and money upon.

NEW COUNCIL OF AGRICULTURE AND ARTS.
—District No. 1—A. C. ibard, McNab, Lochiel.
No. 2—Hon. J. Skead, Ottawa. No. 3—And. Wilson, Montreal. No. 4—Lyne Diamond, Ameliasburg. No. 5—Nathan Choute, Port Hope. No. 6—George Graham, Brampton. No. 7—George Murton, Guelph. No. 8—J. C. Rykert, M.P.E., St. Catharines. No. 9—Hon. David Christie, Paris. No. 10—Robert Gibbons, Paris. No. 11—L. E. Shipley, Falkirk. No. 12—Stephen White, Charing Cross.

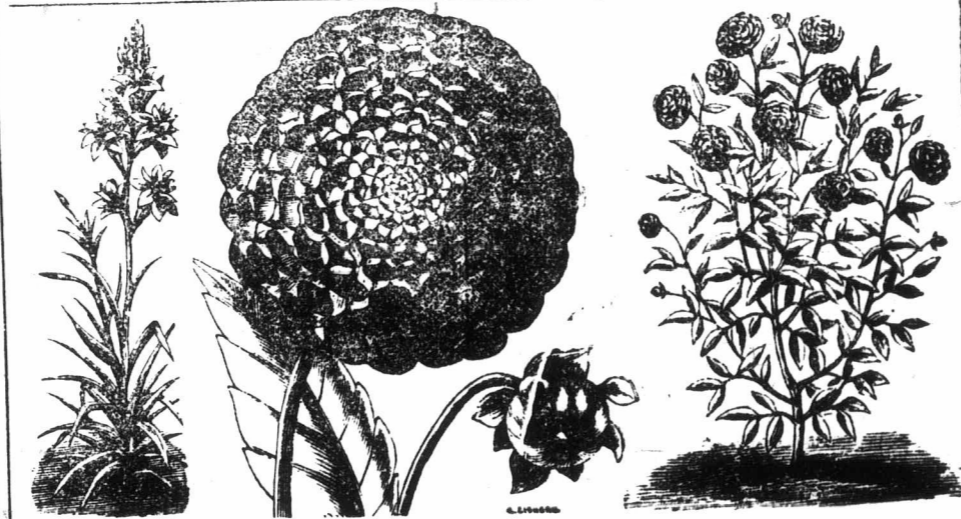
PROFITS OF POULTRY.—In well kept poultry-yards the net returns of eggs and chickens will average about \$2 to each hen. With turkeys the profit will vary from \$3 to \$5 to each hen. This seems to be the usual average, as determined by various reports of actual experiments. In a communication to a Farmers' Club, a grower at Hamonton, N. J., gives the results of his poultry farm for 1871: "I have twenty-nine hens, which have laid 4364 eggs; and, if my arithmetic is right, they averaged 150 and a fraction over. I raised sixty chickens, worth \$30. The eggs averaged twenty-four cents per dozen, making \$87.8 for eggs. Add \$30 for chickens, and you have \$117.28. Of the cost of keeping I am not so sure, as the count has not been kept so exact; but about \$55. The hens are a mixture of several breeds, but none pure. The White Leghorn and Braham predominate. The feed has been corn and wheat screenings, with some hog-chesse and wheat middlings, pounded oyster-shells, etc."

THE SUNFLOWER.—The Dutch, who live only by diking and draining their low lands, pronounce sunflower culture a specific for intermittent fever, the scourge of Holland. They assert that the disease has disappeared from every district where the experiment has been tried.

A schoolmaster in Ohio advertises that he will keep a Sunday-school, twice a week, Tuesdays and Saturdays.



BALSAMS.



DAHLIAS.

To the Ladies.

We often commend articles and subjects to the attention of the gentlemen, and in some things we guarantee them satisfaction. We know the ladies are all fond of flowers, but few of you are aware what a beautiful, interesting and instructive book Mr. Vick's Illustrated Catalogue and Floral Guide is. We would advise every lady that can afford 20 cents to procure one; you cannot help being pleased and satisfied, as the illustrations are charming, and the instructions most complete. His price is only ten cents, but the duty, postage and carriage makes them higher here. We will send them post paid for 20 cents. They are of no profit to us; the actual cost of the book is about 40 cents, and if sold at the general rate it could not be had for less than \$2; in fact you cannot get such a handsomely illustrated work at any bookstore for any money. It is worth five times its price to any mother that wishes to have refinement, neatness, beauty and adornment impressed on the minds of her family. Send for one; we do not write this to make one cent from the book, as we have to put a three cent stamp on each one. It

is for your benefit, and if any one should have confidence enough in our remarks to entrust us with 20 cents, and should not be more than amply satisfied on the first glance at the book, we will return the money by the next mail if it is asked for.

The engravings on this page are from his Catalogue, which contains over 100 illustrations of different flowers.

We have some beautiful Double and Camelia Balsams, and some very handsome Dahlias; we will send a Dahlia bulb or a package of choicest Double Balsams as a present to every lady subscriber whose name is now on our list, or to any whose names may be added to the list during this month. The bulbs will be sent as soon as the weather will permit.

These beautiful pictures that we give as prizes for club lists, are such as will astonish every person who procures one. They are only \$1.25, sent to your post office, or one will be sent for five new subscribers. There is a very handsome pair which we will give for nine subscribers, one picture representing a beautiful bouquet of lilies, and the other a basket of flowers. They are 10 3/4 inches each.

The Field.

FOREST AND AGRICULTURE.

Lands cannot be spoiled. It is said of some cultivators that they spoil their land. In this there is some truth but more exaggeration. No fool can so abuse an acre but that a wise farmer can make it better than it had been ever before. He may damage soils for a time; may lower their annual value, but he cannot long hinder their natural recuperation; nor, unless he should live longer than the patriarchs, can he prevent wiser men having the charge of them. If he attempt more than a mere temporary deterioration of the soil, the great physical laws of the Creator oppose him, and will prevail. It is no more within human power to thwart the operation of those laws, which promise an increased productiveness of the earth proportioned to the increasing wants of mankind, than it is to nullify the Divine promise, that "seed time and harvest shall not cease while the earth remains."

If men could in any way diminish the productive power of the soil, or prevent its increase to the extent of supplying food and clothing to the increasing populations for long periods to come, it would be by destroying the forests. This they could do for a time, by the combined force of axes and fires; but soon, within a generation or two at most, the forests would grow up again in spite of them. The first effect of stripping a territory of its forests would be to diminish its agricultural capabilities; a secondary effect would be to lessen the number and enfeeble the energies of its population; a third consequence would be that, in spite of a reduced and degraded people, either forests or prairie grass and weeds would spring up, as the country might be suited to the one or the other; and the soil would, ere long, have regained all its former agricultural capability, in accordance with a great recuperative law, stamped by the Creator on all his works; but not till after great loss, suffering, and degradation had followed the wrong-doing.

In order to obtain the best results from agricultural labor, any country must be from one-quarter to one-half (averaging about one-third) in forest,—more in a dry climate, less in a climate naturally damp. In England, where the atmosphere is always moist and the sun dim with clouds or fog, one-quarter is enough. In New England, where the air is dry and the sun scorching, and where much of the land is worth more for growing timber than anything else, one-half is not too much.

Forests, to the extent above indicated, exert important influences on climate. Multitudinous facts pertaining to the Old World, together with fewer but not less important facts already gathered from the New, go to establish beyond a doubt the following truths. The facts we have neither the time nor the space to detail, but this may be done hereafter, if our conclusions are called in question.

Of two countries similarly situated and equal in all respects, except that one is well wooded, forests being preserved on each farm adequate to a plentiful supply of fuel, building timber, and fencing material, for the farms and the adjacent villages, the forests and cultivated lands interspace each other rather uniformly; while the other has been deprived of nearly all its forests and has no new ones growing to replace them; the first has a very different prospect ahead from the second. The latter cannot, for long years to come, maintain as dense a population; it will fail to grow as much farm, garden, and orchard produce; its farmers will be less thriving, less energetic, less successful; its people will be less intelligent, less refined and less contented—will be moving off westward, or in some other direction. This is strong language, but the history of forest destruction and its effects proves it true. On this point, if not on all others, history repeats itself.

In a country once denuded of its forests, the temperature disobeys the laws which regulate it in a well-wooded country. The people are surprised with spring when it ought to be winter, and with winter when their seed waits to be put into the ground.

In a well-wooded country, storms are more frequent and less violent than in a woodless region. In June, the rains are so frequent, gentle, and refreshing, that the farmer, if he cultivate his land to a reasonable depth, has little occasion to dread the destruction of crops by drought. In the other, excessive rains often follow killing drouths, producing freshets and thereby destroying much public and private

property, in addition to losses just before suffered by a lack of rain.

The moral of all we have said may be indicated as follows:

If we would leave to posterity a green and fruitful country; if we would enjoy, and be willing that our children after us should enjoy, a climate characterized generally by rain-falls frequent, gentle, refreshing, such as agriculture delights in, seldom dangerous, terrific, or devastating, and if we would have on our farms sufficient timber lands to supply ourselves and our non-farming neighbors with fuel, lumber, and fencing material, let us preserve our forests to the extent above intimated; or, if we have already destroyed them, let us begin to restore them at once. But if we prefer the brown and barren to the green and fruitful; if we desire fewer gentle rain-falls, and more freshets, interspersed long drouths, damaging to crops by their excess when they come, as well as destructive to property and perilous to life; if we think that timber enough to meet all the wants of country and village life, will be a curse and not a blessing to posterity; if we really sigh for long, unbroken courses, of wind to sweep over our dwellings and crops the year round; and if we sincerely believe that our winter grains will come out better in spring for having the snow blown from them, than if left where it fell for their protection, then down with the forests. "Woodsman, don't spare a single tree."—*Phrenological Journal.*

TIMELY TOPICS.

But little real field work can be done by farmers in this latitude in winter, but considerable planning may be performed which will have great influence ultimately on the profits of the field crops. At this time of the year the farm accounts should be balanced if not done already—that is, if you have kept any, and we believe accounts are an important adjunct to good and progressive farming. If you made an inventory last New Year's of your farm stock, tools, seeds, and other loose capital required for your business, and then kept an account with each animal and crop, you can now tell to a copper what your profits have been in the year's business. Perhaps you will find that a great deal of money has been made on the farm, and but little remains in your pocket after all bills are paid. You almost wonder where it has all gone, and without a system of accounts you really cannot tell. An inspection of these will show where labor and capital have been expended with profit and without; it will indicate what crops and methods of culture make the best returns, and will give you a clue to the course of farming you should follow. No farmer will improve his farm so rapidly and well and swell his bank account, or diminish his indebtedness, so fast as the one who, by a correct system of accounts, is master at the end of each year of the situation. Some snug farmers have a way of keeping the figures in their heads, and can always refer to them mentally, but this is not to be recommended for the complex operations of most farms.

Planning farm operations should be done early. The question of rotation of crops is timely. Ask some farmers what they will do with a field next spring and they don't know—can't tell till spring comes, and then they will be guided by the prospect of this or that product. This is poor cultivation. If a farmer has the faculty of guessing correctly on such points, he had better quit farming and turn speculator. He can make millions where he will make thousands by telling the soil. The best way, we think, is to grow the staple crops which promise to yield best on your soil, and which fit best in a good rotation. Aim to produce a large crop rather than a high-priced one. Who can tell whether this or that price will be high or low? If you have a large quantity to sell or to feed it will pay any way. We should not forget at this season to plan how to grow large crops. Perhaps a few hundred rods of tile drains in a field that you are going to take up from grass and till for three or four years would double the yield of each crop, and also leave it in better condition for grass when reseeded. If so, what better investment of capital could you make? The winter is the time to buy and draw the tile, make contracts for the labor, etc.

Your seeds and fertilizers, like plaster or guano, should be bought and drawn to the farms, and put in condition for use, in the leisure time of winter.

Perhaps there are some lines of fences rather dilapidated, and which may be dispensed with without inconvenience, and these may be removed if there is not too much snow. Stone can be handled as easily on a sleigh as on a wagon, and drawn easier over the snow than soft ground in the spring.

Fences running north and south, which cause heavy snow banks to the detriment of the crops and ground in the spring, should be taken up if they could possibly be spared. We shall be obliged to have less fencing in this country by-

and-by, and we shall find our farming will grow better in its absence.

The wood lot is getting to be valuable in proportion to the amount of timber it contains suitable for manufacturing purposes. Cord wood does not, and never will, bring the price it has. Coal is the fire king. Tough hickory, ash, oak, whitewood, basswood and chestnut are yearly growing more costly, and these and other useful kinds should be grown. Every farm should have a timber lot, and its growth should be made profitable. Judicious trimming and cleaning will render it more valuable. Some varieties might be planted and would soon become thrifty. What better investment could a farmer make for the future, than the starting of a few acres of choice timber—chestnut, locust, white wood, or black walnut? If the old wood lot is worthless for timber, and the soil and face of the land good, clean it off, but don't neglect starting another. It is not to be doubted now that timber growing is profitable. What would five acres of chestnut timber of forty years' growth be worth? What will it be worth forty years from now? You who plant it may not live to reap the profit, but your capital may be as wisely invested in planting and tilling it for your children as though it were in bonds or mortgages.

Stock.

TREATMENT OF BREEDING SOWS.

The time for early pigs is very near at hand, and the question of the treatment of breeding sows one which should now receive attention, with the view of getting them in the best possible condition for farrowing. The course of feeding should be sufficiently generous to keep the animals in good condition, but still not calculated to encourage the laying on of fat, or, what is of equal importance, create the least disturbance of the digestive organs, to which many sows when approaching the farrowing season are very prone. If the sow is in two strong flesh at the time of farrowing, she is clumsy in her movements, and extremely apt, in consequence, to trample or lie upon some of her young, and besides is liable to numerous difficulties which may prove more or less serious in their consequences, the very least of which is frequently sufficient to induce a morbid and morose condition which prompts her to deliberately destroy her young. If, too, the sow has been for a long time too fat, the pigs are liable to be weaker than they otherwise would be; and while it may be true that they become as vigorous and thrifty as they would had the condition of their dam been different, they are at the moment of birth relatively weaker, and subject to contingencies from which more active pigs would entirely escape. Her course of feeding, too, should be of a character to induce a moderate degree of laxativeness. Constipation is greatly to be deplored, and will be guarded against by all careful breeders who are expecting a valuable litter of pigs. If the bowels cannot be kept open by changing the diet of the sow, which can generally be done without difficulty, some gentle laxative should be given, especially when it is apparent the time of farrowing is quite near at hand, or resort had to injections. Her food, too, for the last few days immediately preceding, should be cooling in its nature.

During the whole time of pregnancy, she should have had abundant exercise, and a week or so before farrowing should be assigned to her pen, fed there, and confined there at night, in order to become so perfectly familiar with her surroundings, as to feel no uneasiness on that account when the pigs come. She should be provided with a reasonable amount of litter for a bed, but not too much, or she will make the bed so deep that the young pigs are liable to get injured between the mother and the sides of the bed. Long straw is objectionable, because pigs are liable to get under it, when their movements will be so impeded as to prevent their getting out of the way, and avoiding being laid upon. If long straw is provided, however, it should be placed in the pen several days beforehand, in order to be broken up. Straw cut short, or a good bed of leaves, are the best. It is a good plan to put a fender around the inside of the pen, some inches above the floor, and from each wall, as it prevents the sow in lying down from crushing the pigs between herself and the sides of the pen. A neglect of this precaution has resulted in the loss of many a fine pig. When farrowing, no idle curiosity should tempt the owner to go near her. Leave her alone. It is very rare indeed that either the sow or the pigs require any assistance, and any intrusion is likely to do damage.

The situation of the pen should be favorable, and it is essential that it be dry and warm.

After farrowing, the sow will not for some days require much food, and such food, therefore, as is provided, should be light, and above all, not heating in its tendency. Milk, slops, scalded middlings, and bran are very good. Particular care must be taken that the bowels of the sow, and also the pigs, are kept in proper condition, as it is frequently the case that the mother must be treated for constipation, and the pig for scours or diarrhoea. The latter, if it occurs, is generally the result of some improper constituent in the diet of the mother, and may generally be controlled by changing it; and a moderate quantity of oil cake will generally serve to overcome her tendency to constipation. After the lapse of ten days or so, the food of the sow may be made somewhat heavier, a little meal being safely put into the slops, and a little grain thrown to her occasionally, and in a short time she can be worked back upon common fare. But while she is suckling the pigs, she should be fed generously, and the pigs should be taught as early as possible to eat slops and other food, in order to lessen their demands upon the mother.

SULPHUR FOR ANIMALS.—I have used sulphur for horse, cattle and swine for over 22 years. It is only when I neglect to give it to my animals for a number of months that they are ever troubled with vermin. When I have occasion to purchase animals, and find some of them infested with lice, I soon rid them of them in this way: give them a small tablespoonful of sulphur every other day for a week, and at the same time take very dry wood ashes and dust them all over once; after this (if the vermin has all disappeared) I give them what they need in course fine salt two months in spring and two months in the fall; for a quart of salt add about 2 table-spoonfuls of sulphur. Cattle having free access to this preparation not only will not be troubled with vermin, but will be less liable to be troubled with skin disease.—*Josiah Clark, in Country Gentleman.*

The Apiary.

WEIGHT OF BEES.—The *American Bee Journal* gives the following estimates of the weight of bees according to various writers: Dumas and Milne Edwards give 86.00 milligrammes as the weight of a worker, being about 4000 to the pound, but this is evidently an error.

Schmidt & Kleine say that 5376 workers weigh a pound, but do not appear to have made any experiments themselves, merely accepting Beaumur's statement.

Berlepsch states that 177 found dead on the alighting board of a hive weighed half an ounce. This would give 5664 to the pound.

The usual estimate is, that of workers net gorged with honey or laden with pollen, 5,300 will weigh a pound; and this may be regarded as a fair average. Bees, when prepared to swarm, usually fill themselves with honey, and hence, when weighing a swarm, especially if accompanied by many drones, a proper allowance must be made in estimating the number of workers emigrating.

The Orchard.

THINNING OF FRUIT.—The *Journal of Agriculture* says a medium-sized fruit, or even one of smaller size, may be more economical for use, but until some decided change in the preferences of the majority of purchasers shall take place, large fruit will sell better than small. To produce this, the fruit must not only have good cultivation, but must be thinned, and we agree with Mr. Meehan that "one-half the trees which bear fruit every year would be benefitted by having one-half the fruit taken off as soon as it is well set, and that the overbearing of a tree will in a few years destroy it." We lay it down as a certain rule that excessive production is always at the expense of both quantity and quality, if not in the same season then in succeeding ones, for when branch is contending with branch, leaf with leaf, and fruit with fruit, for its supply of light and food, it would be indeed an anomaly in nature if this should not result in permanent injury to the tree as well as to the annual crop.

The

POOR POTATOES.—The people who eat them cutting like much more agree according to a lad not in the tubers, she never has any her table, and this preparation: If I remain in cold water "salt as much as I can settle on fire till Prepared this way and wholesome. pared, nor need Wash them thoroughly places cut boiling salted water pour the water of

—Housewives only steaks and A capital dish "chuch," as the when well prepared large as the demand wash it well to from the outside feetly clean; salt lay it in the hot boil it from two thoroughly ten sprinkle of salt. If the meat is fat half hour before when your meat side in the grave other side. We little flour they have a dredge of gray and brown and you will have mind, superior boarding-house turn it and equ in having it the Farmer.

A FRENCH PAN with a smooth range or a good tender spider very hot every two minutes sprinkle over of these who a steak often, it are ready to turn a little flour of butter, or to turn it over, or the butter as the saucepan steak on to oven to keep shake more flour pan, set again butter bubb smooth with a full of boiling soon as this hot.

WASHING Slack lime escape of steam through a lime add one of water. To every five degrees, three and four quarts may be added or whitewash as paint, and will stop snow moss from combustible. When applied brick utterly —*Boston J.*

PUMPKIN TISM.—At Farmer's C virtues of stance of tism: A w mous size was made newed even time produ

The Household.

POOR POTATOES MADE PALATABLE.—Half the people who eat potatoes to-day will find them cutting like a piece of hard soap, and not much more agreeable to the taste. The fault, according to a lady writer in the *Household*, is not in the tubers, but in the cook. She says she never has any but dry, mealy potatoes on her table, and this is her *modus operandi* of preparation: If old, I pare them and let them remain in cold water several hours. When time to cook I put them in a kettle of boiling water "salt as brine." When they are boiled sufficiently, I turn off the water and set the kettle on fire till the steam has all dried out. Prepared this way, old potatoes are delicious and wholesome. New potatoes need not be pared, nor need they remain in cold water. Wash them thoroughly, and if there are any rough places cut them off. I place them in boiling salted water, and when done always pour the water off and place them over the fire.

—Housewives who are in the habit of using only steaks and roasts make a great mistake. A capital dish may be made out of the "chuck," as the butchers call it, or the neck, when well prepared. Select a piece of meat as large as the demand of your table may require; wash it well to remove all the blood or soil from the outside; have your dinner-pot perfectly clean; salt and pepper the meat well; lay it in the bottom and cover it with water; boil it from two to three hours, or till it is thoroughly tender; add half an onion, a sprinkle of sage, thyme, or summer-savory. If the meat is fat, let the water all stew out a half hour before it is put on the table, and when your meat is browned well on the lower side in the gravy, turn it over and brown the other side. When ready, take it up, add a little flour thickening to the gravy, or if you have a dredge-box shake the flour into the hot gravy and brown it, then add boiling water, and you will have a dish equal and, to our mind, superior to the common roast beef upon boarding-house tables. Care must be used to turn it and equally necessary is good judgment in having it thoroughly well cooked.—*Ohio Farmer*.

A FRENCH BROIL.—Select a spider or saucapan with a smooth, clean bottom, set it over the range or stove till really hot, then lay on a good tenderloin or sirloin steak; keep the spider very hot, and turn the steak as often as every two minutes—no longer; when half done sprinkle over salt and pepper to suit the taste of these who are to eat it; continue to turn the steak often, till sufficiently done, just as you are ready to take up and dish the steak, dust a little flour over it, spread on a tablespoonful of butter, or if a large steak, a little more; turn it over, dust on more flour, and spread on the butter as on the first side; turn again, set the saucapan back from the hot fire, take the steak on to the platter, and set in heater or oven to keep hot, but not to cook any more; shake more flour into the butter in the saucapan, set again over the fire and as soon as the butter bubbles up through the flour, rub it smooth with a spoon, and pour in a few spoonfuls of boiling water, stir it constantly, and as soon as thick pour over the steak and serve hot.

WASHING FOR ROOFS AND BUILDINGS.—Slack lime in a close box to prevent the escape of steam, and when slackened pass it through a sieve. To every six quarts of this lime add one quart of rock salt and one gallon of water. After this, boil and skim clean. To every five gallons of this, add, by slow degrees, three-quarters of a pound of potash and four quarts of fine sand. Coloring matter may be added if desired. Apply with a paint or whitewash brush. This wash looks as well as paint, and is almost as durable as slate. It will stop small leaks in a roof, prevent the moss from growing over it, and render it incombustible from sparks falling upon it. When applied to brickwork it renders the brick utterly impervious to rain; it endures as long as paint, and the expense is a mere trifle.—*Boston Journal of Chemistry*.

PUMPKINS FOR INFLAMMATORY RHEUMATISM.—At a recent meeting of the New York Farmer's Club, a correspondent wrote of the virtues of pumpkin, giving the following instance of its value for inflammatory rheumatism: A woman's arm was swelled to an enormous size and painfully inflamed. A poultice was made of stewed pumpkins which was renewed every fifteen minutes, and in a short time produced a perfect cure. The fever drawn

out by the poultice made them extremely offensive as they were taken off. I know a man cured of inflammation of the bowels by the same kind of application.

A CURE FOR SMALL-POX.

A correspondent of the *Stockton (Cal.) Herald* gives the following as a cure for small-pox, and as that loathsome disease is performing its horrible work in our city, we give place to the article, which may be of benefit to sufferers:—

I herewith append a receipt which has been used to my knowledge in hundreds of cases. It will prevent or cure the small-pox, even though the pittings are filling. When Jenner discovered the cow-pox in England the world of science hurred an avalanche of fame on his head; but when the most scientific school of medicine in the world, that of Paris, published this receipt as a panacea for small-pox, it passed unheeded; it is as unfailing as fate, and conquers in every instance. It is harmless when taken by a well person. It will also cure scarlet fever. Here is the receipt as I have used it and cured many children of the scarlet fever; here it is as I have used it to cure the small-pox, when learned physicians said the patient must die:

"Sulphate of zinc, one grain; fox glove, (digitalis), one grain; half a tea-spoonful of sugar; mix with two table-spoonfuls of water."

When the above has been thoroughly mixed, add four ounces of water. Take a spoonful every hour. Either disease will disappear in twelve hours. For a child, smaller doses, according to age. If counties would compel physicians to use this, there would be no need of pest-houses. If you value advice and experience, use this for that terrible and dreaded scourge.

Veterinary.

SHOEING HORSES.

It is almost impossible to get a horse shod without having the frogs cut away. All veterinary surgeons, all horsemen, all leading blacksmiths agree that the frogs should not be pared one particle—not even trimmed. No matter how soft and pliable the frog is, cut it away smooth on all sides, and in two days it will be dry and hard as a chip. You might as well cut off all the leaves of trees and expect them to flourish as to pare away the frog and have a healthy foot. The rough spongy part of the frog is to the foot what leaves are to the tree—the lungs. Never have a red-hot shoe put upon the foot to burn it level. Employ a blacksmith that is mechanic enough to level the foot without red-hot iron. The burning process deadens the hoof and tends to contract it. If you do not think so, try the red-hot poker on your finger nail, and see how it will affect the growth of that. There are many other important points in shoeing horses, but these two are of more importance than all the rest, level to the apprehension of men not skilled in horses, and the two most disregarded.

GALLED SHOULDERS ON HORSES.—Wash them well every night and morning with a strong solution of oak bark, made by boiling the bark in water; then rub them well with linseed oil. Anoint them every night and morning with a salve made of three parts of linseed oil and one part quicklime. To make horses' shoulders tough, wash the shoulders well twice a day for a week before working with oak bark solution.

TO TRAIN A HORSE TO STAND.—The *American Stock Journal* contains the following directions: "Take your horse on the barn floor and throw a strap over his back and fasten it to his fore foot; lead him along and say ten whoa; at the same time pull down the strap, which throws him on three feet and makes him stop suddenly. This is the best way to teach whoa, though you can put on the war bridle and say whoa, giving a sharp jerk that will stop him about as soon as the strap to his foot. Then put him in harness with a foot-strap, as directed under the head of "training to harness," and drive him up to the door. The moment he undertakes to start take his foot up and say whoa. Get in your carriage and get out again, rattle the thills, make all the noise in and out you can and give him to understand by snatching his foot each time he moves, that he must stand until you tell him to go; and after a few times you can put the whole family in the carriage and he won't stir out of his tracks."

Dairy Department.

A CONVENIENT MILK RACK.—Place a piece of scantling perpendicularly in any convenient, airy place in your cellar, or milk room. Then commence a foot or two from the bottom of the post and nail on pieces of common lath, about two feet eight inches long, at right angles with the post, and exactly opposite each other, so that the ends will reach out far enough each way to receive a pan of milk. The strips may be five or six inches apart, on alternate sides of the posts, and carried up about six feet high. Forty gallons of milk in six quart pans may be placed on such a rack, and no pan in the way of any other pan.

MILKING IN SILENCE.—The *London (Eng.) Milk Journal* says: Cows that are fed at milking time require their usual meal, or they may become restless or dissatisfied, and put a stop to their bounty. Many of them will only allow some special favorite to milk them. In those parts of the country where women are solely employed to milk, we frequently find one or two tuneful lassies singing at their work, and many cows become so pleased with the rustic harmony as to show evident signs of their approval of the loud sweet voice by giving their milk only by being sung to. Everything that distracts the attention of the cow and ruffles her placidity should be avoided when called upon to yield her milk. Her nervous system should not be excited by strange noises, unwelcome objects, or rough treatment, or the effect will be apparent in a diminished supply in the milk pail. It would no doubt be good advice on the whole to tell those who milk that they should keep their tongues and keep their tempers. The Connecticut farmer appears to have sufficient reasons indeed to say that speech is silver, but silence is golden.

Miscellaneous.

LADY FARMERS.

Agitation does good, as thunder-storms clear the air. One good from all this fuss about woman's rights is to show women that they can earn their bread in other ways than by the needle or by teaching school. Many have turned their attention to gardening and farming in a small way with excellent success. Many more have, I dare say, tried and failed, but usually from a want of resolution and perseverance in the face of difficulties. A lady in Hartford earned by a day's work enough to buy a half acre of land. On this she has set out and cultivates with her own hands, twenty apple trees, sixteen cherry trees, eleven pear trees, over a hundred grape vines, besides a variety of small fruit, as strawberries, currants, raspberries, &c. That this lady has lost nothing in refinement of feeling by her out-door work, we might judge from a note sent by her to an editor, accompanying a gift of beautiful fruit. She mentions the great enjoyments she has felt in her work, and says: "The fruits and flowers, like angel voices, have cheered me on. In their presence I have cultivated a love for the beautiful in all things, and have been happier in loftier, holier thoughts, with clearer views of the brighter world above. I would recommend to all ladies that they give time and attention to horticulture; it improves both mind and body." Who will say that such a life is not better than drudging over her needle for a bare pittance, wearing out soul and body both in the struggle to keep off famine? A young lady in Mississippi, who had just graduated, came home and hired a few colored people, and undertook the experiment of woman farming. The result at the end of the year were—eight banks (!) of potatoes, six hundred bushels of corn, and \$969 in cash, from the sale of cotton, after all expenses were paid.—*Country Gentleman*.

FARMING WELL.—The great difficulty in the way of good farming is too much land; farmers are so hurried in the getting in and in the harvesting of their crops, that they have really no time to devote to the improvement of the soil. Let any one visit some of the ten-acre farms in the neighborhood of Cincinnati, and the truth will soon become apparent, that more profit can be made from ten acres, properly tilled and manured, than can be realized from one hundred acres run over in the usual negligent manner. The occupants of these ten-acre farms are growing richer every year, while many who occupy large farms barely hold their own.—*Ohio Valley Farmer*.

TO TRAIN A FUSCHIA.

When a slip has grown six or eight inches high, nip out the top down to the next set of leaves; it will then throw out branches on each side. Let these grow eight or ten inches, then nip out the top of each branch, when grown the same height as the others; then procure a stick the size of your finger, eighteen inches in length; take hoop-skirt wire, twine back and forth alternate, through holes made in the stick equal distances apart; place this firmly in the pot back of the plant, tie branches to it, and you will have, when in flower, a beautiful and very graceful plant. Having one trained in that way last season, it was the admiration of all who saw it.—*Small Fruit Recorder*.

BRIEF.—Here is a brief synopsis of a constitution for a Farmers' Club. It contains all the points which are essential in such a document:

1. Name of Club.
2. The Club shall meet once a fortnight, at the house of member previously agreed upon.
3. A subject of discussion, and a speaker to open the debate, are appointed for each meeting.
4. The member at whose house the Club last met is presiding over the meeting.
5. Secretary, to serve for six months, is elected. He is expected to furnish the proceedings of the Club to the country newspaper.
6. Members may propose candidates for membership, who are elected by a majority of the votes cast.
7. All other matters are left to be managed at option of the Club "for the time being."

GRASSHOPPERS IN MAINE.—The *Maine Farmer*, in review of the past season, says: "The year 1871 will be forever remembered by the farmers of Maine as the 'grasshopper year.' No such ravages by insects were ever before known in our state; no one insect was ever so numerous; none ever appeared in such vast numbers, or caused so much destruction to crops. The reports of their ravages are often almost incredible, and the crops in entire districts, towns and even counties were completely devoured. Generally throughout the state they caused more injury to grain, grass, corn, potatoes and garden vegetables than drought, frost, rot and all other adverse causes combined.

We have previously commended the sowing of Larkspur as a poison for grasshoppers. It may be well to have some of it about gardens and plots of land. Our turn may come next. We have suffered considerably from these deprecations, and it is a question yet to be decided to what extent and what expense we should put ourselves for preventative measures.—*Ed.*

A WOMAN FARMER.—The Royal Agricultural Society of England having placed £50 at the disposal of judges, to be awarded to the two most highly commended farms, they awarded £25 to Mr. Brewster, for the successful management of good land. Mrs. Elizabeth Stankley's farm was highly commended and awarded a prize of £25 in recognition of her profitable management. Here we see that a woman comes to us with the key to success in rural pursuits—profitable management.

GODERICH STAR.—We are pleased to see this deserving journal resume its presence. About three months since it passed through a fiery ordeal which destroyed all its working materials. In its present enlarged form and its new type, there can be no doubt of its being received with an appreciative support, not only in its immediate vicinity, but throughout the Dominion at large.

A CURIOUS PHENOMENON occurred on the Ottawa river between the city and Hull on Saturday evening. As some parties were crossing on the ice they were startled by a loud explosion, which shook the whole mass on which they were travelling. Upon looking for the cause they saw a shower of ice, water, sawdust and slabs falling over a space of open water about an acre in extent, from which the ice had been blown by submarine forces, thought to have been compressed air or gases.

A crowd of disorderly women, who were being tried before a Salt Lake City police court, recently, took it into their heads to demolish the witnesses and clean out the policemen, in all of which they were successful.

NEW SEEDS FOR 1872.

WE have now received our NEW IMPORTATIONS of GARDEN & FIELD SEEDS, and shall be glad to receive a continuance of that patronage with which we have hitherto been favored.

GEO. J. GRIFFIN, Seed Merchant, WHOLESALE AND RETAIL DEALER IN Field, Garden and Flower Seeds.

IMPORTER OF ENGLISH, FRENCH & AMERICAN SEEDS; DUTCH FLOWERING BULBS, &c. Sole Agent for London for the Toronto Tea Company's TEAS & COFFEES ESTABLISHED 1855.

POULTRY. EGGS FOR HATCHING.

HAVING spared neither pains nor expense in procuring really choice Fowls from Europe and the United States, I will now dispose of a few settings of Eggs of the choicest varieties, all of which I guarantee pure.

T. CLAXTON. DEALER in all kinds of MUSICAL INSTRUMENTS. BRASS BANDS supplied with new or second hand Instruments, at from One Hundred to Two Hundred Dollars per set.



\$50 and \$53 Each, WORK BY HAND Sets up its own work, knits a pair of Stockings in 30 Minutes. Also, Fancy Vests, Clouds, Gloves, Mittens, Cuffs, Collar etc., etc.

AYRSHIRE CATTLE. THREE YOUNG BULLS and SIX COWS and HEIFERS, of different ages for sale.

FOR SALE, 7 Tons of genuine BONE DUST - Price \$33 per ton on board the cars - Apply at City Office.

COSSITT'S AGRICULTURAL IMPLEMENT WORKS, GUELPH, ONT.

MANUFACTURE all kinds of Agricultural Implements - Canadian Sifter Fanning Mills, One Horse Seed Drills, Hand Seed Drills, One Horse Ploughs, Paris Straw Cutter, Little Giant Straw Cutter, Turnip Cultivators, &c.

LEVI COSSITT, Nelson Crescent, Guelph. 72-3-y

Farmers, Gardeners, Florists, Seedsmen, &c. Bone Super-Phosphate Manure, Quality Guaranteed!

Analysis by the Highest Authority! PRICE \$40 PER TON, In good barrels, containing 200 lbs. each, and in bags containing 50 lbs. each.

FOR SALE. DURHAM BULL, AGED TWO YEARS.

SEED OATS FOR SALE. 100 BUSHELS OF EMPORIUM OATS, of excellent quality, weighing 47 lbs. to the measured bushel.

WILSON & HASKETT, PRODUCE DEALERS and COMMISSION MERCHANTS. Office, - Corner of King and Oxford Streets, INGERSOLL, Ont.

DANA'S PATENT SHEEP MARKS. THESE MARKS ARE THE CHEAPEST, the most lasting, the least troublesome, and most complete ever invented.

Great Western Railway. Trains leave London as follows: GOING WEST. - 12.50 p. m.; 5.25 p. m.; 2.45 a. m.; and 5.45 a. m.

Grand Trunk Railway. Mail Train for Toronto, &c., 7.30 a. m.; Day Express for Sarnia, Detroit and Toronto, 11.25 a. m.; Accommodation for St. Mary's, 2.45 p. m.

BREEDERS DIRECTORY.

H. R. IRVING, Hamilton, Breeder of Southdown Sheep and Berkshire Pigs. 72-1-y R. D. FOLEY, Bowmanville, Importer & Breeder of Devon Cattle, Berkshire Pigs and Merino Sheep.

W. LANG, St. Mary's, Breeder of Short Horns and Berkshire Pigs. A. PARK, Ingersoll, breeder of Ayrshire cattle. JOHN CURRIE, Verschoyle, breeder of Berkshire Pigs.

JOHN SCOTT, Coldstream, Breeder of Leicester sheep and Short Horn cattle. THOS IRVING, Logan's Farm, Montreal, Breeder of Yorkshire Cattle, Clydesdale Horses, Yorkshire and Berkshire Pigs and Leicester Sheep.

W. H. SPENCER, Breeder and Importer of Devon Cattle, Clydesdale Horses, Southdown and Hampshire Down Sheep, and Berkshire Pigs.

J. MILLER, Thistle-ha, Brougham P. O., Breeder of Short-Horns, Cotswold Sheep, improved Berkshire Pigs and Clydesdale Horses.

JAMES COWAN, Clockmora, Galt P. O., Breeder of Short-Horns, Leicester Sheep and Essex Pigs.

FOR SALE. A VERY FINE DURHAM BULL, aged 4 years; color red, with a little white. Price \$400.

FOR SALE. A VERY FINE DURHAM BULL, aged 4 years, color red; #20. - THOS. BECKETON, Strathburn, Ont. 72-3-4f

Montreal Markets.

Flour: no change to note in demand or values; small sales of the several grades for local use at unchanged rates. Wheat: buyers more disposed to await further advices, and in the meantime have lowered their purchases.

New York Markets.

New York, Feb. 26. - Cotton is 22 3/4 for middling uplands. Flour dull, and without decided change; receipts 5,000 barrels; sales 7,000 barrels; quotations unchanged.

Leaving the East and arriving at Chicago or Indianapolis is now all we reach the West? The east line is acknowledged to be the C., B. & Q., joined together with the B. & M. Railroad by the Iron Bridge at Burlington, and called the Burlington Route.

Burlington.

Lovers of fine views should remember the Burlington Route, for its towers "high-gaming from afar" - its tree-tinged straggles - its rough bluffs and quarries - its corn-oceans stretching over the prairie further than eye can reach.

VERY IT HATH NO EQUAL. CONSUMPTIVES, READ!

Would you cure that distressing Cough and bring back that healthy vigor till lately prostrated in your cheek? If you would do not delay, for ere you are aware it will be too late!

PERRY DAVIS & SON. GENERAL AGENTS, Providence & Montreal.

THE DO



Will take out drawing any size \$70. The largest and heaviest. - Agricultural Em. N.R. - HUB

WH

Short, light, strong and Steel Weeds in the frame. - Mold Board. - 15 JOHN WHITE

TO

FOR SALE, 100 quarters of most beautiful and most beautiful adapted for building elevated and high. The soil is fertile. This lot, no doubt had it been properly managed, would have commanded Farmers' Advocate

JOHN MA

MANUFACTURER of Meat Preserves, Canned Corn, Canned Beans, Canned Tomatoes, Canned Apples, Canned Peaches, Canned Fruits, Canned Vegetables, Canned Soups, Canned Sauces, Canned Pickles, Canned Relishes, Canned Condiments, Canned Syrups, Canned Jellies, Canned Marmalades, Canned Preserves, Canned Pickles, Canned Relishes, Canned Condiments, Canned Syrups, Canned Jellies, Canned Marmalades, Canned Preserves.

Toronto

J. & FIRE AN S Combining al

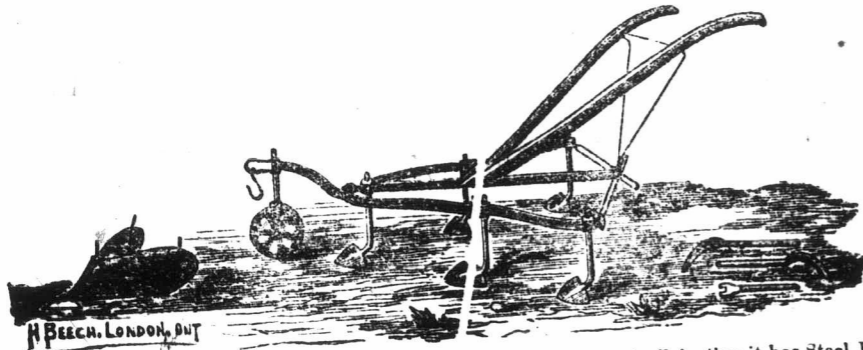
Address J. & Agate, London

THE DOMINION STUMP EXTRACTOR THE BEST STUMP EXTRACTOR MADE.



Will take out 20 to 50 stumps per day, depending on size. Three sizes. No. 1, capable of drawing any stump, \$120. No. 2, for stumps 2 feet 6 inches. \$90. No. 3, for 18 inch stumps. \$70.

WHITE'S CULTIVATOR, THE BEST IRON FIELD CULTIVATOR MADE.



Short, light, strong, durable, runs easily and steadily, does its work most efficiently; it has Steel Feet and Steel Weeder for attachment; also, the teeth can all be easily removed and the Drill Plough inserted in the frame.

TO CAPITALISTS.

FOR SALE, 106 ACRES of GOOD LAND, three-quarters of a mile from the city. This is the most beautiful site for a gentleman's residence to be found anywhere near London.

JOHN MARTIN COLLETT & CO., MANUFACTURERS OF COLLETT'S PATENT

Meat Preserving Fluid, Bleachite of Soda and Lime, Carbolic Disinfecting Fluid and Powder; Importers of McDougall's Carbolic Sheep Dipping Composition, Candy Machines, Pyrometers, and Importers and Dealers in Reagents.

Toronto Safe Works.

J. & J. TAYLOR, MANUFACTURERS OF FIRE AND BURGLAR PROOF SAFES

Combining all the late improvements, at the lowest prices. Send for Price List. Address J. & J. TAYLOR Toronto. W. WELD, Agents, London.

ANDREW CHISHOLM & Co. IMPORTERS of Staple and Fancy Dry Goods, Carpets and Oil Cloths. Manufacturers of Clothing and general Outfitters. Dundas Street, London, Ont.

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

EVERY FARMER Should have a Horse-Power Sawing Machine. And Jack combined, or separate power suitable for 2 or 3 Horses. Sawing Machines will cut 20 to 50 Cords per day. Jack suitable for driving all kinds of Machinery usually used. Price \$95. D. DARVILL. London, Jan., 1871.

LONDON SADDLE, HARNESS & TRUNK FACTORY. THE Subscriber takes pleasure in calling the attention of the citizens of London and surrounding country to his large and complete assortment of SADDLES, TRUNKS, HARNESS, Ladies' and Gents' Valises, COLORED WOOL MATS

Whips, Currycombs, Brushes. And everything connected with a first-class Harness business—all of the best material and workmanship, which will be sold at the lowest cash prices. All work warranted. JOHN STEVENSON, Richmond Street, opposite City Hall. London, May, 1871.

ABEL HINES, TAXIDERMIST, Clarence St., London, Ont. All kinds of BIRDS & ANIMALS neatly and expeditiously stuffed. Charges Moderate.

G. EDLESTON, Dundas St., London, Ont. Dealer in STOVES, LAMPS, OIL, LINENWARE, and JAPANESE GOODS. A large stock always on hand. Cheap and good—cannot be undersold. Call and See.

DRAIN TILES! DRAIN TILES! 50,000 DRAIN TILES FOR SALE. Sizes from two to six inches. Apply to T. McTAVISH, L. Co. Vanocck P. O. Seven miles from Komoka Station.

ONTARIO Gun and Rifle Factory. Established 1842. Sign of the Big Gun, Dundas St., London, Ont. JOHN GURD & SON, Manufacturers and Importers of Shot Guns, Rifles, Revolvers, Pistols, &c. N. B.—Repairing done with care and dispatch.

GO TO DYSON'S for CHEESE VATS and the best Stoves. Cheap as any. Dundas St., London.

T. PEEL, Practical Tailor, has always on hand a large Stock of Cloths, which he will sell at a small advance on cost, by the yard, and will cut them out free of charge. T. Peel, Merchant Tailor Dundas Street, London.

J. BEATTIE & Co., IS the cheapest Dry Goods, Millinery, and Mantle Store in the City of London.

JAMES LENNOX, Merchant Tailor Dundas St., London, Ont. Wilson's Block, keeps constantly on hand an assortment of English and Canadian Tweeds and Cloths. The patronage of the public is respectfully solicited.

J. NATTRASS, Accountant Insurance, House J. Real Estate & Ocean Steamship Agent. Loans for Sale. Rents Collected. Deeds and Mortgages prepared. Money to Loan. Office—Market Lane Book Store, London.

ABBOTT BROS., CARRIAGE BUILDERS Dundas Street, East of Wellington Street, LONDON, ONTARIO.

M. KNOWLTON, WHOLESALE AND RETAIL DEALER IN LUMBER, SHINGLES, LATH & CEDAR POSTS. Flooring and Siding Dressed. PAUL'S OLD STAND, south side of York street, west of Tecumseh House. Orders solicited. London, May, 1871.

MOLSONS BANK. Paid-up Capital, \$1,000,000. Rest, 60,000. Contingent Fund, 13,000.

THE LONDON BRANCH OF MOLSONS BANK, Dundas Street, one door west of the New Arcade. Issues Drafts on London, England, New York, U.S., St. John, N.B., and all the principal Cities and Towns in Ontario and Quebec. Offers unusual facilities to those engaged in the produce business. Deals liberally with merchants and manufacturers.

Savings Bank Department Affords opportunity for safe and remunerative investments of accumulative savings. JOSEPH JEFFERY, Manager. London, Sept 14, 1870.

THE Agricultural Mutual ASSURANCE ASSOCIATION OF CANADA.

HEAD OFFICE, LONDON, ONT. Licensed by the Dominion Government. CAPITAL FIRST JAN., 1871, \$231,242 25. Cash and Cash Items, \$72,289 55.

THIS COMPANY continues to grow in the public confidence. On 1st January, 1871, it had in force 34,528 POLICIES, Having, during the year 1870, issued the immense number of 12,319 Policies.

- Intending insurers will note— 1st—That this is the only Fire Mutual in Canada that has shown its ability to comply with the law of the Dominion, and deposit a portion of its surplus funds for the security of its members. 2nd—That being purely mutual, all the assets and profits belong solely to the members, and accumulate for their sole benefit, and are not paid away in the shape of dividends to shareholders as in the case of proprietary companies. 3rd—That nothing more hazardous than farm property and isolated dwelling houses are insured by this Company, and that there is no branch for the insurance of more than one property, nor has it any connection with any other company what ever. 4th—That all losses are settled and paid for without any unnecessary delay. 5th—The rates of this Company are as low as those of any well established Company, and lower than those of a great many. 6th—That nearly four hundred thousand dollars have been distributed by this Company in satisfaction of losses to the farmers of Canada during the last ten years. 7th—That the "Agricultural" has never made a second call on their members for payments on their premium notes. 8th—Farmers patronize your own Canadian Company that has done good service amongst you. Address the Secretary, London, Ont., or apply to any of the Agents.

Anglo-American Hotel, KINGSTON, CANADA, E. MILSAP & CO., Proprietors.

THE Proprietors take pleasure in informing their friends, and travellers either for pleasure or on business, that they have newly furnished this elegant Hotel, where they will find every comfort and accommodation. Guests will find this the most pleasant and desirable stopping place in the City.

BREAKFAST.—Epps's COCOA—GRATEFUL AND COMFORTING.—By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills.—Civil Service Gazette. Made simply with Boiling Water or Milk. Each packet is labelled—James Epps & Co. Homoeopathic Chemists, London. Also makers of Epps's Milky Cocoa (Cocoa and Condensed Milk.) 72-1-y

G. MOORHEAD,
WHOLESALE AND RETAIL
Manufacturer of Furniture,
UPHOLSTERER, &c.
1-4t King Street, London.

LOUGHREY & TACKABERRY, SADDLERS.
Richmond Street, London, have in stock Harness, Saddles, Trunks, Whips, Ladies' and Gents' Travelling Valises, and all articles pertaining to a first class saddlery business, of the best quality and workmanship. We especially invite those who wish a good article to give us a call. All work warranted to give satisfaction. 71-5y

FOR SALE.

The noted Short Horn Bull, "BELL DUKE OF OXFORD," bred by Mr. Alexander of Kentucky. His stock have taken more prizes than any Bull in Canada. Terms easy. Also, some Heifers and Bull Calves.
Apply to **JOHN B. TAYLOR,**
2tf London, Ont.

TYTLER & ROSE,
Family Grocers,
WINE AND SPIRIT MERCHANTS
IMPORTERS OF
BRITISH SEEDS,
Dundas Street West,
LONDON, ONT.

SHORT HORN BULL
FOR SALE.
PRINCE ARTHUR, 2 years old, registered Pedigree. Apply to **THOMAS HARRISON,** Lot No. 3, 5th Con. London Township, 6 miles from the city. 2

D. REGAN,
SUCCESSOR to John McPherson & Co.
Manufacturer, Wholesale and Retail Dealer in Boots and Shoes, Farmer's Block, opposite Strong's Hotel, Dundas Street, London, Ont. April 1, 1870. 4-y-cu

THE ARTIST PHOTOGRAPHER,
FRANK COOPER,
STUDIO RICHMOND STREET,
Near the Revere House, the place where the beautiful "Rembrandt" is made.
London, May 1871. 71-51

F. S. CLARKE, Richmond St., London,
Exchange Broker, Insurance Agent, and Agent of the National Steamship Co. from New York to Liverpool, calling at Queenstown. Prepaid certificates issued to bring out from the above places or Germany. 3-y

JOHN ELLIOTT,
PHENIX FOUNDRY.

MANUFACTURER of Stoves, Ploughs, Reaping machines, Threshing Machines, Lap-Furrow Ploughs, Cultivators, and Guage Ploughs, &c., London, Ont.
Also, at Strathroy. 3-tf

Toronto Nurseries
G. LESLIE & SON,
PROPRIETORS.
EXTENT, 150 ACRES

The Stock embraces Trees, Plants and Flowers, suitable to the climate, which we can pack to carry safely to any part of the world. Priced descriptive Catalogues sent to all applicants enclosing a two cent stamp. Address
GEO. LESLIE & SONS,
Toronto Nurseries,
Leslie P. O., Ont.
1-71

IT WILL
COAX
THE MOST
Impaired
APPETITE



IT RENDERS
COARSE
PROVENDER
rich and
PALATABLE

The Nutritious Condiment is the only Condiment used in the stables of Her Majesty the Queen.

Certificate from J. Taylor, Esq., M.R.C.V.S., London, Inspector of the Royal Stables. Since ordering the N. B. C. Food Company's Condiment to be used in the Royal Stables and Model Farms we have had no ailments amongst our Cattle. I consider it to be the best Condiment offered to the public, and the only one worthy of their attention.
June 4, 1870. J. TAYLOR, M.R.C.V.S., London.
From Mr. A. W. Alloway, Veterinary Surgeon, Cote St., Montreal, Dec. 15, 1871:

You can use my name as testifying to the genuineness and utility of the Nutritious Condiment for horses and cattle. A.W. ALLOWAY.
From Messrs. Bancroft & Sharpe, Great St. James St.: The information contained in the North British Cattle Food Co.'s Circulars respecting their Condiment is true to the letter. We have it and are satisfied. For horses that have been stall-fed for several seasons it is invaluable; after using it a week or so, they are as fresh as if they had been out at grass all spring. Independent of the saving it effects in their feed, we should continue to use it.
Bancroft & Sharpe, City Express and Livestock Stables, Montreal, Dec. 18, 1871.
From Mr. D. T. Irish, Agent of the National Express Co and Canadian Express Co, Montreal: The North British Cattle Food Company's Condiment is being used in our stables, and the men inform me the horses relish it, and are much improved under the new regimen.
D. T. Irish, Express Agent.
7 and 9 Place D'Armes, Dec 18, 1871.

This celebrated Cattle Food is composed of health-giving seeds, herbs and roots, grown for their fattening properties and health-giving qualities. By using it a saving of 20 per cent. is effected on the cost of feeding, and the animals are in better condition. It is not only the best but the cheapest Cattle Food in existence, being at the rate of one cent per feed. All the principal prize cattle at the Royal Agricultural shows held in the Agricultural Hall, Islington, London, at Xmas of 68, 69, 70 and 71, were fed on the Nutritious Condiment. Prize medals awarded to this Condiment at the London Exhibition of 1862 for genuineness and utility.
Manufactured by the North British Cattle Food Company, at Glasgow and London. Depots in Canada:—Montreal, 451 Commissioner's St; Toronto, 6 Palace St; Ottawa, Little Sussex St; The North British Cattle Food Co.'s Manager in Canada, GERALD GORDON.
Lowest wholesale and retail rates forwarded on application to any of the Depots as above.

TREES,
FRUIT AND ORNAMENTAL,
FOR SPRING OF 1872.

We invite the attention of PLANTERS and DEALERS to our large and complete stock of Standard and Dwarf Fruit Trees, Grape Vines, Small Fruits, Ornamental Trees, Shrubs, Roses, New and Rare Fruit and Ornamental Trees, Evergreens and New Plants.

Prompt attention given to all enquiries. Descriptive and Illustrated priced Catalogues sent prepaid on receipt of stamps, as follows: No. 1—Fruits, 10c. No. 2—Ornamental Trees, 10c. No. 3—Green House, 10c. No 4—Wholesale, FREE. Address,
Estab'd 1840. ELLWANGER & BARRY,
Mount Hope Nurseries, ROCHESTER, N. Y.



VER ONE HUNDRED PAGES—printed in T. Colors, on superb Tinted Paper.—Four Hundred Engravings of Flowers, Plants & Vegetables, with descriptions, and Two Colored Plates.—Directions and Plans for making Walks, Lawns, Gardens, &c.—The handsome and best Floral Guide in the World.—All F-TEN CENTS, to those who think of buying Seeds.—200,000 sold of 1871. Address,
JAMES VICK,
Rochester, N. Y.

LAMB & WARREN'S
COMBINED PLOUGH & SUBSOIL-ATTACHMENT



Plowing, its Object and How to Accomplish it.—New and Valuable Invention.—A 2-Horse Subsoiler.

Plowing, its Object and How to Accomplish it.—New and Valuable Invention.—A 2-Horse Subsoiler.

THE REAL OBJECT OF PLOWING, it is well known, is not to turn over an immense quantity of soil without disintegration, but rather to change the relative position of the particles. It is a fact well known to every practical and intelligent farmer that plowing from 5 to 8 inches in depth, year after year, has the effect of closing the pores of the earth, and forms a hard pan under the surface, on which the water either stands in pools until evaporation takes place, or runs off into creeks without filtering into the ground, and thus affords nourishment to the roots of growing plants in the heat of summer. Barrenness of soil and exhaustion of the grain bearing qualities of land are the result of this system of light plowing. To obviate this difficulty of light plowing—to get a proper depth of pulverization without entailing the expense of purchasing and working the heavy subsoiling Plows, we have introduced what we call our COMBINED PLOW AND SUBSOIL ATTACHMENT. This can be used on a common Plow, and is composed of an anti-friction wheel placed between the lead side and mould board of the Plow, and a Subsoiler formed of two coulters, set into an iron frame immediately in rear of the wheel, and falling from 6 to 8 inches below the bottom of the furrow. The wheel is placed about three-quarters of an inch below the land side of the Plow, and by resting on the furrow lessens the draft on an ordinary Plow about 200 pounds, as has been proved by actual experiment. By this means it makes up for the resistance of the subsoiler, so that the whole is no heavier in draught than an ordinary Plow. The Cultivator teeth which form the subsoiler are placed about the width of the furrow apart, and by so tearing up the earth under the furrow that it is completely pulverized. One grand advantage in these attachments is that they can be used with a common Plow, while by their use a common Plow is made a subsoiler, and yet can be drawn by an ordinary team without more difficulty than is experienced in ordinary plowing.

The great advantage of subsoiling is now fully recognized, and in this country, where the average of dry weather is greater than in Europe, subsoiling is a necessity to good crops. It prevents plants from suffering in dry seasons by enabling their roots to spread in the soil. In wet seasons the pulverization of the soil causes the excess of moisture to pass off below the surface, and in stiff, clayey or other tenacious soils, by the use of the attachment the hard pan or stiff under soil which is formed by repeated plowings to the one depth is opened and pulverized, allowing freer circulation to moisture, and a greater radius to the roots.

Those who are now using the Combined Plow and Subsoil Attachment with a common team, can almost say that they have discovered another farm beneath that represented on their map.
Strathroy, Jan. 10th, 1872.—I have tested Lamb & Warren's Subsoil Attachment and Light Draft Plow, and found it to exceed my expectations. My experience as a plowman extends to 40 years, partly in Canada and partly in Scotland. In all that experience, varied as to localities and soils, I have never found anything to equal this simple invention. The Subsoiler is a complete pulverizer, and the Anti-Friction Wheel so great an assistant, that two horses are all that are needed in the stiffest soils. The plow went to a depth of six inches, and the pulverizer six inches below in the trials to which I refer.
JOHN BURNETT.

Strathroy, Jan. 10th, 1872.—I have seen Lamb & Warren's subsoiler at work, and affirm that I have not a tool in my garden that so effectively pulverizes the earth at the depth of 12 inches.
WILLIAM PHILLIPS, Market Gardener.

We, the undersigned farmers and others have tested Lamb & Warren's Combined Plow and Subsoil Attachment thoroughly, and unhesitatingly pronounce it a perfect success and believe it is destined to be of great benefit to every agriculturist. In recommending it we feel that we are recommending an article that will prove of immense benefit to farmers: Wm. Rapley, D. M. Cameron, S. G. Chamberlain, A. Hilton, Luther Bullard, M. Street, Wm. Chalmers, F. Kittredge, Dr. Bettridge, W. A. M. B., Richard Saul, W. H. Saul, Wm. B. Walker, W. Sellers, Isaac Moore. 2-81

RESTORE YOUR SIGHT.



OLD EYES MADE NEW.

All diseases of the Eye successfully treated by

Ball's New Patent Ivory Eye Cups.
Read for yourself and restore your sight. Spectacles and Surgical operations rendered useless. The inestimable blessing of Sight is made perpetual by the use of the new PATENT IMPROVED IVORY EYE CUPS.

Many of our most eminent physicians, oculists, students and divines have had their sight permanently restored for life, and cured of the following diseases: 1. Impaired Vision; 2. Presbyopia, or Far Sightedness, or Dimness of Vision, commonly called Blurring; 3. Asthenopia, or Weak Eyes; 4. Epiphora, or Running or Watery Eye; 5. Sore Eyes—specially treated with the Eye Cups—cure guaranteed; 6. Weakness of the Retina, or Optic Nerve; 7. Ophthalmia, or Inflammation of the Eye and its appendages, or imperfect vision from the effects of Inflammation; 8. Photophobia, or Intolerance of Light; 9. Over-worked Eyes; 10. Myopia, or moving specks or floating bodies before the eyes; 11. Amaurosis, or Obscurity of Vision; 12. Cataracts, Partial Blindness; the loss of sight.

Any one can use the Ivory Eye Cups without the aid of Doctor or Medicine, so as to receive immediate beneficial results and never wear spectacles; or, if using now, to lay them aside forever. We guarantee a cure in every case where the directions are followed, or we will refund the money.
2309 Certificates of Cure, From honest Farmers, Mechanics, and Merchants, some of them the most eminent leading professional and business men and women of education and refinement, in our country, may be seen at our office.

Under date of March 23, Hon. Horace Greeley, of the New York Tribune, writes: "J. Ball, of our city is a conscientious and responsible man, who is incapable of intentional deception or imposition."
Prof. W. Merriek, of Lexington, Ky., wrote April 24th, 1869: "Without my Spectacles I pen you this note, after using the Patent Ivory Eye Cups thirteen days, and this morning perused the contents of a Daily Newspaper, and all with the unassisted Eye."

I am I grateful to your noble invention; may Heaven bless and preserve you. I have been using Spectacles twenty years; I am seventy-one years old. Truly Yours, PROF. W. MERRICK.
Rev. Joseph Smith, Malden, Mass., cured of partial Blindness, of 18 years' standing, in one minute, by the Patent Ivory Eye Cups.

E. C. Ellis, late Mayor of Dayton, Ohio, wrote us Nov. 15th, 1869: "I have tested the Patent Ivory Eye Cups, and I am satisfied they are good. I am pleased with them; they are the Greatest Invention of the age."

All persons wishing for full particulars, certificates of cures, prices, &c., will please send your address to us, and we will send our Treatise on the Eye, of 44 pages, free of charge, by return mail.

Write to
DR. J. BALL & CO., P. O. Box 957, No. 91, Liberty Street, NEW YORK.

For the worst cases of Myopia, or Near-Sightedness, use our New Patent Myopic Attachments, which applied to the Ivory Eye Cups, has proved a certain cure for this disease.

Send for pamphlets and certificates—free. You need no more money by adjusting huge glasses on your nose and disfiguring your face.

Employment for all. Agents wanted for the new Patent Improved Ivory Eye Cups. Just introduced in the market. The success is unparalleled by any other article. All persons out of employment, or those wishing to improve their circumstances, whether gentlemen or ladies, can make a respectable living at this light and easy employment. Hundreds of agents are making from \$5 TO \$20 A DAY. To live agents \$20 a week will be guaranteed. Information furnished free of charge. Send for pamphlet, circulars, and price list. Address

DR. J. BALL & CO., Oculists,
P. O. Box 957, No. 91 Liberty St., New York.

THE ONTARIO CABINET LAWYER
Being a Handy Book of Forms, with observations, designed for the use of Farmers, Merchants and others. Enabling them to draw their Deeds, Mortgages, &c., without the assistance of a lawyer. Price \$1.50. Sent free by mail to any address, on receipt of the amount.

71-9tf E. A. TAYLOR, & Co., London, Ont.

THE GARDNER Sewing

MANUFACTURED BY
GARDNER SEWING
Nos. 61, 63, 65, 67,
HAMILTON
F. A. GARDNER,
WILLSON, Sec. T.
Supt.

THE GARDNER PA

READ THE FOL
In design, the m
Singer; but the p
is entirely different
as nearly noiseless
Sewing Machine.
The UPPER tensi
discs between whic
tached by a stud to
is flat and placed o
its upper end secur
ed by a thumbcre
The SHUTTLE cam
the shuttle-cam or
nated as a "ball"
prongs of a fork w
the shuttle-arm.
steel, and securely
which in a basket
along the face of
radial movement
the best movement
the centrifugal for
firm to the face of

The FEED deriv
cam" placed on th
ing transmitted t
feed lever under t
is made of steel,
length, thereby pr
ment. To the en
a screw, which se
to the feed that t
heavy goods. Th
to the bed; it is
durable.

The DURABILITY
questioned; the m
are not likely to
of the works are
finely secured to
walnut top or en
case, as may be c
It will be obse
any kind, and th
from the same sh
shuttle and feed

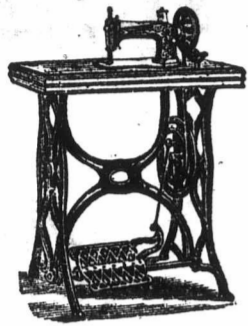
The TREADLE
"centres" in bra
treadle-bar, givi
any noise or loos
give any require
the treadle, besi
motion.

The WHEEL I
a tapered stud o
of the stand by
turned to a cent
to fit the stud; i
a steel plate is f
bear against the
is adjustable, an
upon the taper
yet running eas

The GARDNE
latest and most
prising the fo
without extra c
One silver-pl
screw. One si
plated Tucke
One silver-plat
any width.
Braider. One
One Bottle O
Cloth or Leati
tra Spring for

Address,
GARDNER
71-6-121

THE GARDNER PATENT Sewing Machine



MANUFACTURED BY
GARDNER SEWING MACHINE COMPANY
Nos. 61, 63, 65, 67, 69, 71 and 73, James St.,
HAMILTON, ONT.

F. A. GARDNER, Mechanical Supt. F. M. WILLSON, Sec.-Treas. GEO. LEE, Business Supt.

THE GARDNER PATENT SEWING MACHINE

READ THE FOLLOWING DESCRIPTION.

In design, the machine resembles the Family Singer; but the principle of the working parts is entirely different, having no gear, and being as nearly noiseless as it is possible to make a Sewing Machine.

The UPPER tension is on the face-plate. The discs between which the thread passes are attached by a stud to the tension spring, which is flat and placed on the inside of the face-plate, its upper end secured to the arm, and irregularly by a thumbscrew in the face-plate.

The SHUTTLE MOVEMENT is obtained from the shuttle-cam on the shaft, which is designated as a "ball cam," working between the prongs of a fork which is pinned to the shaft of the shuttle-arm. This shaft is also made of steel, and securely fastened to the shuttle arm, which in a basket at the end carries the shuttle along the face of the shuttle-plate, describing a radial movement which is conceded by all to be the best movement to prevent skipping stitches, the centrifugal force always keeping the shuttle firm to the face of the race.

The FEED derives its motion from the "feed cam" placed on the same shaft, the motion being transmitted through the eccentric rod and feed lever under the machine to the feed, which is made of steel, having a bearing its whole length, thereby preventing any twisting movement. To the end of the feed lever is attached a screw, which serves to give any required lift to the feed that may be necessary for light or heavy goods. The feed spring is also attached to the bed; it is flat, made of steel, and very durable.

The DURABILITY OF THE MACHINE cannot be questioned; the movements being all hardened, are not likely to get out of repair. The whole of the works are enclosed in the arm, which is finely secured to the bed-plate, and set upon a walnut top or enclosed in half or full cabinet case, as may be ordered.

It will be observed that there is no gear of any kind, and that all the motions are derived from the same shaft,—all the usual complicated shuttle and feed movements being avoided.

The TREADLE is adjustable, working upon "centres" in brackets which are fastened to the treadle-bar, giving a light easy motion without any noise or looseness, and can be adjusted to give any required "dip" to either toe or heel of the treadle, besides taking up the wear or loose motion.

The WHEEL BEARING. The wheel runs upon a tapered stud or bearing fastened to the side of the stand by a nut with the bearing end turned to a centre; the wheel is bored tapering to fit the stud; upon the front side of the wheel a steel plate is fastened by two screws, which bear against the centre of the stud; the plate is adjustable, and screws to draw the wheel upon the tapered stud, taking up the wear and yet running easy.

The GARDNER PATENT is fitted with all the latest and most improved attachments, comprising the following, which are furnished without extra charge:—

- One silver-plated Sewing Gauge, with thumbscrew.
- One silver-plated Corder.
- One silver-plated Friller.
- One silver-plated Hemmer, which will hem to any width.
- One Quilting Gauge.
- One Braider.
- One Screw Driver.
- One Oil Can.
- One Bottle Oil.
- One Spool Thread.
- Seven Cloth or Leather Needles.
- Six Bobbins.
- Extra Spring for leather work.
- Printed Directions.

Address,
GARDNER SEWING MACHINE CO.
71-6-121 **HAMILTON, ONT.**

The King of Sewing Machines

THE MACHINE FOR THE FARMERS OF CANADA.



THE MACHINE FOR THE ARTIZANS OF CANADA.

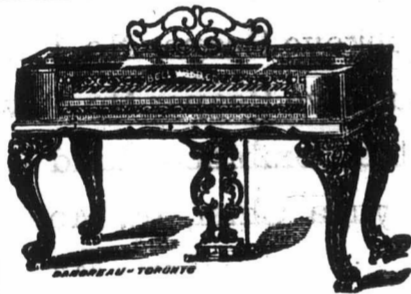
THE OSBORN LOCK STITCH Sewing Machine

Has now been tested beyond all question, and the verdict of the public is that to-day it stands without a rival. It is the most substantially built, has the fewest working parts, and is beautiful in design and finish. Has the best design of a shuttle, and by far the largest bobbins. It is capable of performing a range of work hitherto thought impossible for Sewing Machines, is sold at about one-half the price of other Machines doing the like work, and is equally at home on leather as on fine goods. A perfect machine guaranteed or no sale. It is the best made, simplest, more durable and reliable than any other single thread Machine. Larger and works with greater ease. Will do all kinds of domestic Sewing in a perfectly satisfactory manner. Has taken first prize wherever exhibited.

Agents wanted everywhere. Splendid Inducements.

GUELPH SEWING MACHINE CO.,
Guelph, Canada

John Morrish, Chatham, General Agent for the County of Kent.
Wm. Lundie, Mount Brydges, Agent for West Middlesex.



W. BELL & CO.,
Organ & Melodeon Manufacturers,
GUELPH, ONT.

RECEIVED AT KINGSTON,
A Silver Medal, and all the First Prizes.

At Western Fair, London. Diploma and First Prize for best Melodeon and Cabinet Organ of any kind.

At Great Central Fair, Hamilton. Diploma and all the First Prizes.

At Central Exhibition, Guelph. A Diploma for General Excellence, and 3 First Prizes out of 4 for Music.

NOTICE.

MR. WM. WEBB manufactures and keeps constantly on hand the PATENT COMBINED PEA HARVESTER AND HAY RAKE, a complete implement. Price \$20.

Extract from Certificate:—
We, the undersigned, take great pleasure in recommending to the Farmers your Pea Harvester and Hay Rake. Having used your Machine and seen it used, would say we can pull from eight to ten acres of peas per day with it as well as it can be done with the scythe.

Yours respectfully,
James Corsort, S. A. Corsort, G. F. Ryland, John Atkinson, J. C. Shoebottom, J. Campbell, P. Anderson, Wm. Simbert, A. Decker, Jos. Mitchell, D. Y. Decker, Wm. H. Telfer, A. Dievar, M. R. C. S. L., Thos. Hodson, Wm. J. Howard, R. Porter, Wm. Tears, Geo. Walker, James Howard, Fishwick Loft, James Hynes, all of the Township of London.

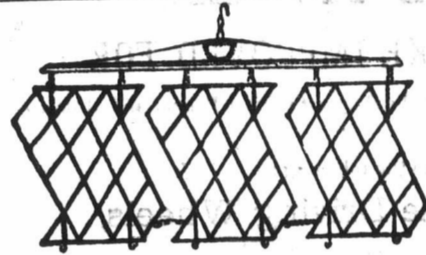
For Machines address WM. WEBB, London, or call at the Manufactory, opposite Mr. John Elliot's Foundry, Wellington Street.
London, May 1, 1870.



MARKHAM BELL FOUNDRY.

No. 1 Bell, 15 inches diameter—yoke & crank...	\$10
No. 2 " " " " " " " " " " " "	12
No. 3 " " " " " " " " " " " "	20
No. 4 " " " " " " " " " " " "	30
No. 5 " " " " " " " " " " " "	50
No. 6 " " " " " " " " " " " "	70
No. 7 " " " " " " " " " " " "	120

There are about 1800 of the above bells now in use and giving the best of satisfaction, costing only one-third the amount of ordinary bells, and are all warranted one year. Encourage home manufacture and purchase a warranted article. Farmers! throw aside those dinner horns, which cause the ladies to get swelled necks by blowing. JONES & CO., Markham P. O., Ont. W. WELD, Agent, London.



HOWARD'S IMPROVED IRON HARROW.

THIS Harrow is superior to all others, because it is the most complete. It covers 14 feet of land. It leaves the ground finer, works freer, and adapts itself to uneven land. It does not bend, and chokes less than any other Harrow. It is so constructed as to draw either end. The teeth being so set as to tear the ground up to a good depth, or to pass lightly over the surface, as the teeth are beveled on one side. It can be worked with a span or three horses, or it may be unjointed and worked with one or two horses, in one, two or three sections.

They are giving entire satisfaction.
Price of Harrow complete, with three sections, treble-tree, and two coupling-trees, \$35.
Price of two sections and one coupling tree, \$22.

Address—**THOMAS HOWARD,**
Adelaide Street, London, Ontario
Samples may be seen and orderstaken at the Agricultural Emporium. 74.4c

CURRIE BOILER WORKS

Manufacture all kinds of AGRICULTURAL, Stationary & Portable Boilers, Oil Stills, Worms, Agitators, Iron Boots, Bridge Girders, Tanks, &c.

New and Second-hand Boilers for Sale. Works on the Esplanade, Foot of Church Street TORONTO.
NEIL CURRIE, Proprietor.

USE SIMPSON'S GATTLE SPICE

It is the finest Condition Powder in the World FOR HORSES.

It fattens Cattle, Sheep, Hogs and all animals.

It gives a relish to the coarsest Food.

It fattens Cattle in half the usual time, and at a great saving of expense.

For sale by the principal Chemists and Merchants in every town.

PRICE 25c. per lb.

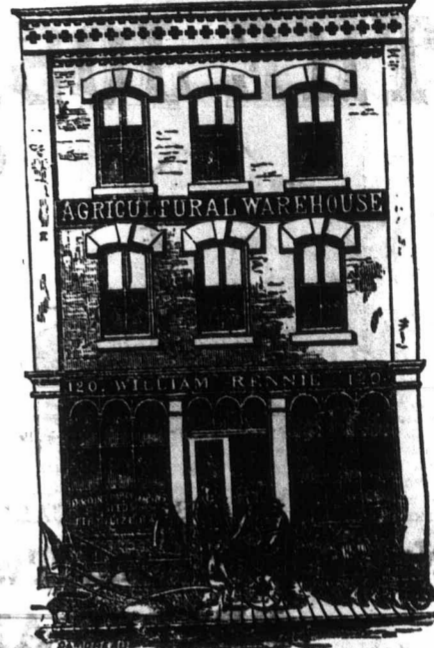
Wholesale by C. GARLICK, 138 St. James Street, MONTREAL.

11-1871 W. WELD, Agent, London.

LONDON PUMP AND Fanning Mill Factory,

BATHURST STREET, LONDON, ONT.

J. M. COUSINS manufacturer of Improved Force and Lift Pumps, Fanning Mills, and "Little Giant" Straw Cutters. Pumps repaired, Wells dug and Cisterns built.



WILLIAM RENNIE

120 ADELAIDE STREET, EAST - - - TORONTO
IMPORTER,
MANUFACTURER AND DEALER IN

The latest and most approved Agricultural Implements, &c., &c.

GRAY'S CHAMPION Double and Single Furrow Plows

and all kinds of PLOW FITTINGS KEPT IN STOCK.

FANNING MILLS for \$20. Send for Illustrated Catalogue. P. O. Box 1355 71-11

PULMONARY BALSAM
USED AND RECOMMENDED BY THE MOST EMINENT PHYSICIANS IN NEW ENGLAND FOR THE LAST 48 YEARS. "NOTHING BETTER."
CUTLER BROS. & CO., BOSTON.
Solely Sold by the Dispensaries FOR COUGHS, COLDS & CONSUMPTION.
Whear & Co., Hamilton & Co., Hamilton, Agents.
71 10-6

TIME AND LABOR SAVED

THE OSCILLATING WASHING MACHINE

Patented on the 18th of July, 1870, by **WILLIAM MATHEWSON,** OF BROOKLIN, ONT.

THE Patentee challenges any other Washing Machine now in use to compete against his, for any sum they may name. The Machine has been thoroughly tested, and used by nearly all the principal hotels and leading farmers in the County, who pronounce it the best now in use. It will wash from a muslin pocket-handkerchief to a bed-quilt. A trial will satisfy any person as to its merits.

County Rights and Machines for sale Apply to **WM. MATHEWSON,** Brooklin, Ont.

This Machine can be seen and procured at the Agricultural Emporium Warehouse, London. Brooklin, March, 1871. 3-17

CHARLES THAIN,

MANUFACTURER of Ploughs, Harrows, Cultivators, Thain's Double Mould Plough & Turnip Sowers, Horse Rakes, Turnip Cutters, Churns, &c. First Prize Double Mould Plough at Provincial Show, Hamilton, 1868, at the Provincial Show, London, 1869, and at Toronto Provincial Show, 1870. First Prize Two Row Turnip, Carrot and Mangold Drill, at the Provincial Show, Toronto, 1870. Second Prize Two Horse Cultivator at the Provincial Show, Toronto, 1870. Third Prize One Horse Cultivator, Toronto, 1870. All Orders promptly attended to by addressing **CHAS. THAIN,** Eramosa Bridge, Guelph, Ont.

PORT PERRY HOUSE,

PORT PERRY, ONT.

JAS. THOMPSON, - Proprietor.

THE Subscriber wishes to inform the community that his premises are now open to the public where he is prepared to furnish as good accommodation as any in the County, 71-6-9

dered Useless.
NEW.
Successfully treated
Eye Cups.
your sight.
ctions rendered
ing of Sight is
new PATENT
CUPS.
physicians, ocu-
had their sight
and cured of the
ophyria, or Far-
sion, commonly
sed the Eye
Weak
Watery Eye,
with the Eye
weakness of the
Ophthalmia, or
its appendages,
fects of Inflam-
Intolerance of
10. Mydriasis
dies before the
of Vision;
ss; the loss of
Eye Cups with-
ine, so as to re-
ults and never
ow, to lay them
a cure in every
followed, or we
Cure,
Mer-
minent leading
and women of
our country, may
Horace Greeley,
"J. Ball, of our
sible man, who is
or imposition."
y. Ky., wrote April
les I pen you this
Eye Cups this
ed the entire con-
all with the eyes-
e invention; may
I have been using
several years
W. MERRICK,
ase., cured of par-
ing, in one minute,
ton, Ohio, wrote us
the Patent Ivory
y are good. I am
Greatest Invention
articulars, certifi-
please send your
our Treatise on the
by return mail.
957, No. 91, Lib-
YORK.
or Near-Sighted-
opic Attachments,
Cups, has proved
ates—free. Waste
e glasses on your
wanted for the new
s. Just introduced
unparalleled by any
of employment, or
circumstances, whe-
make a respectable
employment.
\$5 TO \$20 A DAY.
e guaranteed. In-
Send for pam-
Address
O. Oculists,
y St., New York.
NET LAWYER
with observations,
rs, Merchants and
their Deeds. Mort-
e of a lawyer,
to any address, on
& Co., London, Ont.

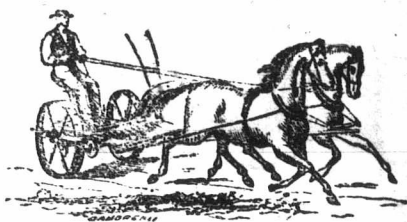
THE JOSEPH HALL MACHINE WORKS

OSHAWA, - - - ONTARIO,

ESTABLISHED 1851.



The Joseph Hall Manufacturing Company
PROPRIETORS.



WE DESIRE TO CALL ATTENTION TO OUR
**Number One and Two Buckeye Combined
REAPER AND MOWER,**

WITH JOHNSON'S SELF RAKE IMPROVED FOR 1871.

We believe this Machine, as we now build it, to be the most perfect Reaper and Mower ever yet offered to the public of Canada.

Among its many advantages we call attention to the following :-

It has no Gears on the Driving Wheels,

Enabling it to pass over marshy or sandy ground without clogging up the gearing, thereby rendering it less liable to breakage. It is furnished with

Four Knives, Two for Mowing and Two for Reaping, one of which has a sickle edge for cutting ripe, clean grain in the other a smooth edge for cutting grain in which there is grass or seed clover.

It has malleable guards both on the Mower Bar and Reaper Table, with best cast steel Ledger Plates. It is also furnished with our

New Patent Tilting Table for Picking up Lodged Grain.

This is the only really valuable Tilting Table offered on any combined Reaper and Mower. — The Table can be very easily raised or lowered by the Driver in his Seat without stopping his Team.

This is one of the most important improvements effected in any Machine during the past two years.

Any one or all of the Arms of the Reel

Can be made to act as Rakes at the option of the Driver, by a Lever readily operated by his foot. The Cutting apparatus is in front of the Machine, and therefore whether Reaping or Mowing, the entire work of the Machine is under the eye of the Driver while guiding his team. This Table is so constructed as to

Gather the Grain into a Bundle before it leaves the Table, and deposit it in a more compact form than any other Reel Rake.

The Table is attached to the Machine both in front and rear of the Driving Wheel, which enables it to pass over rough ground with much greater ease and less injury to the Table. The Grain Wheel Axis is on a line with the axle of the Drive Wheel, which enables it to turn the corners readily.

The Rakes are driven by Gearing instead of Chains, and therefore have a steady uniform motion,

Making them much less liable to breakage on uneven ground, and more regular in removing the grain. The Gearing is very simple, strong and durable. The Boxes are all lined with

BABBIT METAL.

The parts are all numbered, so that the Repairs can be ordered by telegraph or otherwise, by simply giving the number of the part wanted

There is no side Draught in either reaping or mowing, and the Machine is so perfectly balanced that there is no pressure on the horses' necks either when reaping or mowing. All our malleable castings, where they are subject to much strain, have been

Twice annealed, thereby rendering them both tough and strong.

OUR JOHNSON RAKE

Is so constructed as to raise the cam so far above the Grain Table that the Grain does not interfere with the machinery of the Rakes or Reels.

We make the above Machine in two sizes :

No. One, large size, for Farmers who have a large amount to reap.

No. Two medium size, for Farmers having more use for a Mower than for a Reaper.

With the exception of difference in size, these Machines are similar in every respect. Our No. 2 Machine supplies a want heretofore unfilled, viz. : A medium between the Jun. Mower and large combined Machine, both in size and price. We shall distribute our sample machines in March among our Agents, that intending purchasers may have an early opportunity of examining their merits,

And we guarantee that all Machines shipped this season shall be equal in quality and finish to the samples exhibited by our Agents.

We invite the public to withhold giving their orders until they have had an opportunity of inspecting our Machines, as we believe that they are unsurpassed by any other Machines ever yet offered on this continent.

We also offer among our other Machines :

Johnson's Self-Raking Reaper, improved for 1871, with two knives, smooth and sickle edge, and malleable guards.

Wood's Patent Self-Raking Reaper.

Buckeye Reaper No. 1, with Johnson's Self Rake.

Buckeye Reaper No. 2, with Johnson's Self-Rake.

Ohio Combined Hand Raking Reaper and Mower.

Cayuga Chief, Jr., Mower.

Buckeye Mower No. 1.

Buckeye Mower No. 2.

Ball's Ohio Mower, No. 1.

Ohio, Jr., Mower.

Taylor's Sulky Horse Rake.

Farmer's Favorite Grain Drill.

Champion Hay Tedder.

AND OUR CELEBRATED

HALL THRESHER AND SEPARATOR

Greatly improved for 1871, with either Pitt's, Pelton, Planet, Woodbury, or Hall's 8 or 10 Horse Power. We shall also offer for the Fall trade a

NEW CLOVER THRESHER AND HULLER,

Very much superior to any other heretofore introduced,

A new and complete Illustrated Catalogue of all our Machines is being published, and will be ready for early distribution, free to all applicants.

All our Machines are warranted to give satisfaction, and purchasers will have an opportunity of testing them both in Mowing and Reaping before they will be required to finally conclude the purchase.

For further information address -

F. W. GLEN,

PRESIDENT,

OSHAWA, ONTARIO.



VOL. V

GENERAL EDITOR

Test of Se
E. Middle
Farmers'
To Hon. A
Seeds...
Patrons o
National
Ancient S
Fruit Gro
Western
To our Pr
Caution
Live Stoc
Hints fo
Roots...

HORTICULTURE

A Few F
Remedy f

CORRESPONDENTS

Water fo
Farmers'
Planting
" Young
Borrowin
An Agric
Farmers'
Planting
Spring
New See
Leakage
Excelsio
The Pot
Winter
Flowers
Suggeste
Conversi

YOUTH'S DEPARTMENT

Uncle T
Boys as
Answers
Acrostic
A Game

THE FARM

Clover r
Advant
What is
Fall M
What I

DAIRY DEPARTMENT

X. A. V
Winter

STOCK

The M
In-and
N. P.

MISCELLANEOUS

Discon
The F
To Lie
Mark
Empo
Breed

Advertisements

A farm
underdrain
used paid
bonds, or
is doubled