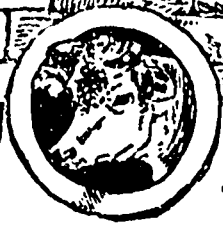
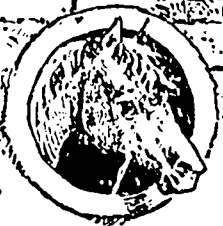


PER
5
1
632
V 776
1884

VOLUME
VII.

NOVEMBER 15TH

NUMBER
6



THE

CANADIAN FARMER

and Grange Record

ORGAN OF THE BEE-KEEPERS' ASS'N.



THE REWARD OF TOIL.

SEMI-MONTHLY MAGAZINE
* DEVOTED TO THE *
FARM AND GARDEN · STOCK · POULTRY ·
* * · ORCHARD · APIARY · * *
GRANGE · DAIRY · HOME-CIRCLE ·



INDUSTRY.

ONE DOLLAR
Per YEAR
IN ADVANCE

W·H·MONTAGUE, M·D· Editor.
Printed and Published by
THE WELLAND PRINTING AND
PUBLISHING HOUSE COMPANY.
DRAWER · A · WELLAND · ONT.

THE ONLY
SEMI-MONTHLY
AGRICULTURAL
JOURNAL IN
CANADA.

MATTHEW NORTHROP CO. BUFFALO N.Y.

To Secretaries, Masters and Members of the Dominion Grange, Canada,

GENTLEMEN,

My attention has been drawn to the following article in the *Grange Bulletin* of September:—

W. N. HARRIS, ESQ., Manager G. W. S. Co.

DEAR SIR AND BRO.—I am informed that the Grange Wholesale Supply Co. buys goods from Chas. Stark, and sells them to the Grange without allowing the discount given the Company by Stark. Now, if this be so, are we not being deceived by the Company, and would it not be better for our Grange to send its orders direct to Mr. Stark, who will sell to us quite as cheaply as the Grange Wholesale Supply Co?

An answer will very much oblige.

Fraternally,

Mr. Harris replies to this at some length, and in which he makes some wild and untruthful assertions.

He says, "We do not buy all goods in Mr. Stark's line from Mr. Stark, from the fact that we can buy many things that he deals in from the same parties that he purchases from; consequently we are enabled to cut under Mr. Stark's prices to the Grange. Our large purchases in Watches and Jewelry enables us to do this."

To the uninitiated this would appear very plausible; but Mr. Harris knows that this is not the truth, and that by making such false assertions he seeks to make capital at our expense, no doubt taking it for granted we would not see or hear anything of this article.

We propose to give Mr. Harris an opportunity to prove this.

**We Assert Positively that the W. S. Company NEVER DID
or CAN Purchase as we do Direct from the Manufac-
turers in Europe and the United States.**

However desirable it may be to dispense with middle-men in my line of goods it is impracticable.

No secret society is more exclusive and exacting than the Manufacturers of Watches in the United States, and almost equally so are the makers of Jewelry, Silverware, Fire Arms, &c.

In proof of this there are retail Jewellers in this city in good credit and of twenty, thirty and forty years' standing, and whose individual sales would treble the gross sales of the Wholesale Supply Company per annum, who have never been privileged to buy a single watch from the manufacturers.

I was in the business (dating back to 1850) when the first Watch factory was started in the United States, and have regularly bought direct from the Manufacturers at Jobbers' price, and am still on the Jobbers' list.

Now, to test the truth of Mr. Harris' assertions, I make the following proposition:

I will pledge myself to give \$500.00 to Charitable Institutions of this City if he will make good his assertions that he buys Watches direct from the same source as I buy; and further, that if he will produce evidence in the next 30 days from this date that he has bought a bill direct, as he claims he has, I will give the \$500.00 as above stated.

Mr. Harris knows quite well that if he sent the Watch Factories a cheque for \$10,000, \$20,000 or \$30,000 for their goods it would be returned to him with his order, directing him to some resident and recognized Jobber. So much for buying direct.

Mr. Harris lays special stress on the desirability of Grangers putting their money in his pocket instead of mine, but fails to show how they participate in the profits made.

Probably the following correspondence in the *Monetary Times* of the 26th of September will best explain Mr. Harris' idea of how to dispense with middle men by substituting middle women and his theory of buying direct from Manufacturers.

Ex-Granger—"Can you tell me who compose the Toronto Importing Company, and whether or not this Company furnishes goods largely to the Grange Wholesale Co. If so, is this not a violation of its rules?"

Answer—"The Company you first name is not an incorporated concern. The registered partners are Eliza Harris, wife of W. H. Harris, Manager of the Grange Wholesale Supply Company, and Saphronia Hunt, wife of Henry Hunt, book-keeper for the same Company. We are told that purchases to a considerable amount are made from the Toronto Importing Co. by the Grange Co.

This is certainly a violation of the principles of the Grange, which, as we understand, are not to have any dealings with middle-men. Possibly middle-women are not as objectionable.

So far as our knowledge goes the business of the W. S. Co. is no longer large enough to enable them to purchase in sufficient quantities to buy to the best advantage. Over a year since we declined to furnish their travellers with samples, their business being too small to pay for the trouble.

In proof of this we know of several individual Granges whose purchases per annum is largely in excess of the W. S. Co. in our line of goods.

We have now in press our 1885 Catalogue, in which we make average reductions. Instead of one-third we make reductions of 50 per cent. on old catalogue prices.

To Grangers ordering direct and for cash we will make an additional discount of 10 per cent.

The same discount we have heretofore given the W. S. Co. We do this believing it to be to our mutual interest, viz., to dispense as far as practicable with all middle-men and middle-men's wives.

In our Catalogue for 1885, on page 4, we quote as follows:—Solid Coin Silver Dust-proof Case, Genuine American Movement, price \$15.00. On page 3 of our Watch list we quote: No. 9, 3 oz. Solid Coin Silver Case, Jewelled, Expansion Balance Waltham Watch Co. (or other American makers if preferred), price \$10.50, sent by mail prepaid, cases and movements fully guaranteed; and to be kept in repair for one year at our expense, and from this price 10 per cent. can be deducted when cash is sent with order or satisfactory reference given as to reliability of the Grange ordering.

Here is a chance for the W. S. Co. to cut under us, as they claim they can, and the Grange to save money.

Our new Catalogue will be mailed in November to all Secretaries and Masters of the Granges. If not received would take it as a personal favor they will kindly advise us by P. O. card.

YOURS VERY RESPECTFULLY,

CHARLES STARK,

52 Church St., Toronto.

October 7, 1884.



CANADIAN FARMER

AND GRANGE RECORD.

Vol. vii. New Series No. 6.

WELLAND, ONT., NOVEMBER 15th, 1884

Whole Number 814

Horticulture

Edited by Linus Wolverton, M. A.,
Grimsby.

Seasonable Hints for Fruit Growers.

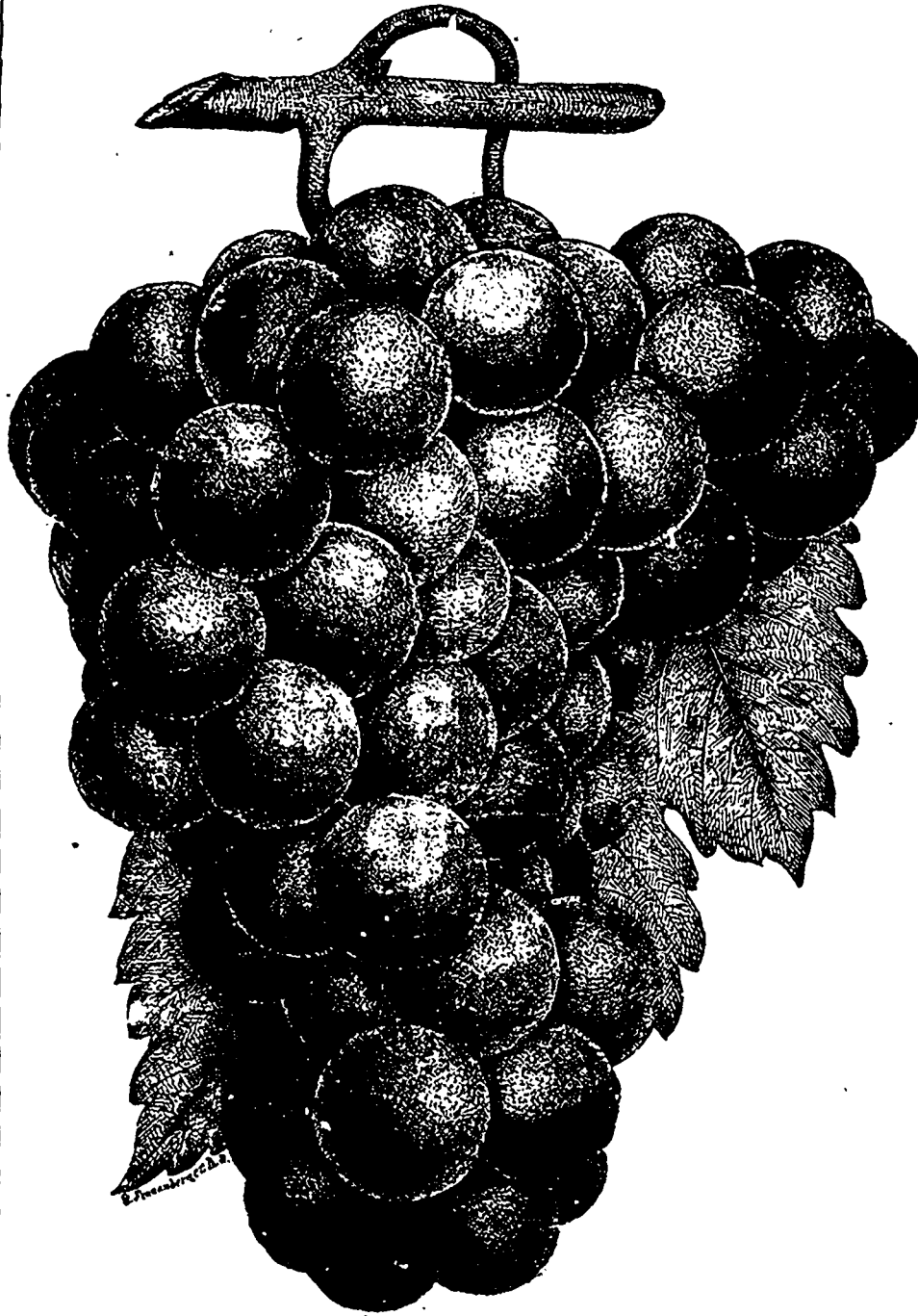
Through the kindness of Messrs. Stone & Wellington, we present our readers with a cut of the white grape, which we described in the last issue of the CANADIAN FARMER, viz., the Golden Pocklington. This grape is a seedling of the Concord and originated with Mr. John Pocklington, of Sandy Hill, Washington County, N. Y. It partakes much of the nature of its parent, being similar in foliage and free from mildew. This vine is a strong grower and quite hardy. This cut is a copy of a photograph of one of twenty-two bunches picked off a four-year-old vine, the aggregate of which weighed fourteen pounds.

As soon as the leaves have fallen in the autumn, it is a very suitable time for

MAKING CUTTINGS.

Now that all fruit is gathered and the growth has ceased, grape vines and currant bushes should be pruned. The result of this will be an ample supply of wood for cuttings. Few farmers know how easily they may increase their stock of plants in this way. From ignorance of a very simple operation pay much money to nursery agents for the purpose of enlarging their plantations, which might easily have been saved by a little labor. Cuttings are made only from new wood. With the grape vine the simplest way is to cut the wood in lengths of about one foot with three buds. These cuttings are stored away in a box of earth or sawdust in the cellar until spring, when they are planted out a few inches apart in rows leaving only one bud above the surface. By that time the cut ends will have callosed over and the growth is almost certain.

The currant bush loses its foliage very early in the season and consequently may be pruned much earlier than the grape vine. We emphasized the importance of a thorough pruning of the currant bush in an article on currant growing, which appeared in the FARMER during the summer. There is not the



THE POCKLINGTON GRAPE.

slightest difficulty in propagating the currant, and any farmer may confidently experiment with it. The wood may be cut in lengths from six to ten inches in length and either buried in open ground until spring or planted at once in the fall. Cuttings of the currant made and planted in the early autumn will partially take root before winter, and so be almost a year in advance of those not planted until the following spring. The same is

TRUE OF PLANTING BLACKBERRY BUSHES.

If they are put in during the early autumn they will be settled ready for growth very early in spring; but if not planted until the following May, young and tender shoots will have become so developed that they can scarcely be moved without being broken off. As an example, Mr. Murray Pettit showed us on his fruit farm some rows of these bushes planted in fall of 1884, and some planted

in the spring of 1884, growing side by side. The difference in size was astonishing, the latter being almost double the size of the former. But for any except the most hardy trees and plants

FALL PLANTING IN CANADA

is a practice by no means to be commended for general adoption. In the *Horticulturist* for October 22nd, W. writes commending the fall planting of trees by those few persons, who are willing to take sufficient pains to do the work well and to properly protect them when thus planted. Perhaps we are among the many who do not take sufficient care, but our experience is, in nine cases out of ten, in favor of spring planting of trees, except in more favored climates than ours where a long autumn gives ample time for the tree to become fully settled before the winter frosts. Certainly it is most unsafe to transplant tender trees such as the peach in the fall. Tender enough at any time, it is still more susceptible to cold when freshly transplanted. We tried it once with fifty fine, thrifty Hales Early. In the spring we waited most patiently for some signs of life. "Dig them up," said one, but still we waited hopefully. May and June passed, and we cut away half the top in despair, but at last, in July, some of them put out shoots from near the ground to reward our patience with some faint hopes of their ultimate recovery. A year's growth, at least, was lost, and so was our confidence in the fall planting of peach trees in Canada. We tried it with one hundred Duchesse pear trees, and in the following spring had the pleasure (?) of rooting up one hundred dead sticks, fit only for the fire. "Are dwarf pears so tender?" asks some one. Well it was not altogether that; in this case the soil was too low and wet for the quince root. One hundred planted on dry sandy soil at the same time succeeded admirably. The inferences in our columns concerning the prospective

IMPROVEMENT IN THE APPLE MARKET

are being borne out by facts.

(Continued on page 13.)

Apiary

To Members of the Ontario Bee-keepers' Association.

GENTLEMEN:

We regret to find that some of our former members have yet failed to send forward their annual fee, and as a consequence by our constitution must cease to be counted as members. Friends, this ought not so to be. The fee is not large, all of us ought to retain our membership even if our ample equivalent were not given in the semi-monthly visits of a first-class agricultural periodical with interesting and useful bee department. The annual meetings held in the past have amply repaid all those in attendance, and will, we trust, in the future be equally interesting. Ontario has hitherto shown by the quantities of honey annually produced that it is entitled to second rank as a honey producing country. Let us have a society ranking second to no other. We respectfully ask every former member as a matter of duty to lend his aid to the attainment of the objects before us. These we cannot hope to accomplish (obtaining incorporation and needful legislation) unless we can shew that we are already an association embracing in membership those who are adding to the wealth of our country by conserving those valuable sweets which a bountiful flora yields, and which would otherwise be wasted on "the desert air." We remain yours respectfully,

J. C. THOM, Pres.,

JACOB SPENCE, O. B. K. A.
Sec.-Treas.

Convention Questions.

Will wax or comb, built while storing buckwheat honey be as pure white as when storing basswood or clover honey?

Mr. Wills reported quite as white and good. Others doubted whether the color of honey would not somewhat affect the shade of wax at least so far as the honey might partly be seen through the sealing.

How does Canada (say Ontario) compare with other countries as a field for successful beekeeping?

Mr. Jones considered the measure of heat and cold as well as flora and conditions for yielding both quality and quantity in Ontario extra favorable. Others spoke of advantages of more southern climes in some respects, but upon the whole Mr. Jones' views seemed more generally accepted.

Is fertilization of queens in confinement likely to be successfully accomplished?

No very decided reply was given, but some instances were related which favored the hope that yet further experiments might be worth making. Mr.

Jones believed in breeding pure distinct bees and select crossing by his Georgian Bay separate island arrangement.

Is the increased supply of honey likely to more than keep pace with the demand in the near future?

Mr. Cornell thought that such is the improvement in the popularity of honey as food and luxury, that we have only to cultivate market, each chiefly near home to have ample outlet for all produced. Others hoped for increased exportation.

Other questions and answers held over till next issue. S.

An exchange suggests the following: "Strew tansy around the floor of the honey room or among the hives to rid them of ants."

We clip the following from *Science Record*: "In a recent number of *Plucker's Archive*, Dr. K. Mullenhof gives an account of the way in which bees form the honey comb, which is especially interesting from the fact that by observation of the act, the author arrives at the same results as did Dr. Wyman from a study of the comb, and that the hexagonal structure, so economical of material is not the result of any mathematical instinct on the part of the bee, but rather a mechanical and mathematical necessity arising from the mutual pressure of adjacent cells.

Wintering.

The time of putting bees past for the winter is now upon us. There is more importance than most persons think in finishing up early either out or indoors. The going to rest quietly without disturbance of any kind during the cold time which suggests to them the need to form in clusters is a very important element of success, and so is also a quiet awakening in spring.

Moth Worms.

A writer in the *American Apiculturist* some time ago propounded the theory that "the moth has learned to lay its eggs on the stigmas of flowers, and that the bees gather and bring moth eggs with the pollen." But said writer offers no evidence beyond the statement that he feels fully convinced. As to how he came to be convinced he does not even deign to hint. So may it be quite sufficient reply to say, "I do not feel convinced," but yet further I beg to suggest the utter improbability of any such occurrence. Moth are a nuisance where allowed to harbor, but with strong colonies and moderate care moth danger may be numbered amongst the myths. Some dread moths as the cause of weak hives when they should rather dread weak hives as the cause or favoring condition of moth culture. Combs in warm hives are pretty certain

to be tenanted. However, when fully occupied with bees the moth must look out for quieter quarters.

Reports.

W. L. Wilson, Elderdale, has had the largest yield this season that he had for past six years, about 200 lbs., all round (Spring Count) and increased from 33 to 52 with plenty of stores to winter. Several other owners of smaller number of hives report also, but rather smaller yield per colony and nearly all agree in calling clover yield extra large and basswood below average. A few have had considerable from early fruit bloom. A few report a few days midling fall flow early in September, and almost all class as in good condition and good stores for wintering.

Foul Brood.

ITS CURE BY FASTING WITHOUT THE USE OF DRUGS OR CHEMICALS.

BY D. A. JONES.

There has been so much said of late on this subject that it would appear to be pretty well worn out, but that there are many apiaries suffering from the malady, where a simple and effective treatment would be gladly tried if known. I have experimented considerably, and found that the disease can be cured without any difficulty, without any medicine, and without any danger of spreading the disease, when properly managed, without any possibility of its ever returning.

Perhaps I may be allowed to describe the disease as I have found it in Canada. In speaking of foul brood I would first distinguish it from all other diseases, such as chilled brood, over-heated or scalded brood, neglected brood, starved brood, dead brood caused by shipping, bees, and another kind of dead brood which resembles foul brood in some respects, and is doubtless what some may call a mild type of foul brood. It would make this article too long to describe minutely the appearance of the various kinds of dead brood above referred to, and the various causes of its appearance. I do not wish to interfere with any other person's system of curing foul brood, but simply to give my own, which has proved successful with myself and scores of others, in the hope that those who have tried various remedies unsuccessfully, may be encouraged to try once more, and with no further expense, and with but little trouble, rid their apiaries of this foul disease. I do not believe, with some, that there is only one method of cure (and that their own.) I know, by experience, that it can be cured in various ways, and I intend to continue my experiments, with the aim of still further simplifying, if possible, the method of cure.

Some imagine that foul brood may be discovered by the foul smell arising from the diseased colonies. This is true as far as it goes, but if one waits until then, there is a probability that very many if not all the colonies in his apiary have become diseased. Before such a condition had resulted the disease would have been running for a long time in some one or two colonies, from which especially in spring or fall when robbing is carried on more or less, the surrounding hives would surely be contaminated and become themselves the centres of infection. A single drop of honey taken from a diseased hive, if fed to the larvae of a healthy hive is sufficient to start the work, of what, unretarded, is inevitable destruction. When the

disease becomes very bad, much of the brood dies before it is capped over, and never is capped after it once dies. I have frequently seen colonies that had become so diseased that a very large portion of the brood had died just before it was capped, and some of the larvae before it had got its full growth.

In examining the larvae just before, and after it dies, I find that a dark spot first appears about its centre, and increases in size very rapidly. Shortly after its appearance short threadlike veins extend from this centre towards both extremities of the larvae and appear to plant two new spots, from which more veins soon radiate. The veins and spots then gradually enlarge until the entire larvae is uniformly affected. The skin of the larvae also commences to wrinkle and shrivel up on the topside, the larvae flattens down and gradually recedes to the back of the cell, and finally becomes the brown putrid mass which distinguishes foul brood so markedly from all the above mentioned maladies.

This brown ropy matter has a sticky, almost elastic consistency, and if a pin head be inserted in it and drawn slowly out it will stretch like india rubber and jerk back into the cell again. The bees make efforts to remove it, but, after a few trials, give it up in disgust, and philosophically endure, what even they, find too incorrigibly obdurate to cure. Allowed to remain this viscid substance in time dries up at the bottom of the cell and would not be noticed except by a close observer.

Diseased larvae that is capped over, is indicated by a sinking of its capping compared with the fuller appearance on the capping of healthy larvae. A small puncture is also made by the bees in the capping in size from a pinpoint to a pinhead. This seems to satisfy them that there is nothing to expect, and the cell is left to itself. If the apiarist opens the cell carefully and finds the contents as above, he may be sure he has foul brood, but if the larvae retains its shape and size, and the skins seem perfect, even though somewhat shrivelled, that is not foul brood. These punctures are sometimes made in merely dead brood capping, their non-emergence at the proper time being doubtless noticed by the bees and thus investigated. Wherever foul brood exists in a colony during the brooding season, the brown ropy matter may be found.

I could describe several methods of cure, but the following I think will be ample, and as it is very simple and easily performed, it comes within the reach of everybody. If the bees have any brood I do not destroy that brood. I remove all the bees that can be spared from the hive, leaving only sufficient to take care of the brood while it is hatching, taking the queen with the bees. I endeavor to have them all filled with honey before removing. They are then shaken in a box with a wire screen lid, and placed in a box in a dark and cool cellar. The box should be turned down on its side; the bees will cluster on the other side which will then be uppermost, and the wire screen forming a side for the time being, will allow of free ventilation. They should be left thus from 3 to 6 days according to the temperature and condition of the bees, which may be determined by watching, and when a few bees fell down and begin to crawl in a weak, stupid manner and those still clustering appear to have shrunk, they may then be removed, placed in a hive and supplied with comb or foundation the same as a swarm. A little honey or syrup should be given them, when they will soon be out foraging again for themselves. I have not

been able to see any difference between swarms so tested until the foul honey in the abdomen has been consumed, and an ordinary swarm of similar size. Both seem to go to work with the determination that characterizes their race.

Some still say this tasting plan is a failure, but where that has been said it cannot have been properly tried. As soon as the brood, which was left in the foul brood hive with some bees, as directed, is hatched out, they should be treated like the others, the combs rendered into wax and the hive and frames boiled for a few minutes in hot water. The wax in the form of foundation may be inserted in the same frames and be ready in the purified hive to receive, with perfect safety, the former inmates as soon as their purification is complete. The honey in the foul brood combs, if extracted and boiled for ten minutes, can be fed to bees without any fear of bad results. Boiling *only* will kill the germs of the disease. I have subjected foul brood combs to a temperature of 35° below zero and allowed them to freeze all winter, then placed one of them in a healthy nucleus, and as soon as it was filled with brood and commenced to hatch, I have found at first examination a very large number of larvae affected with foul brood. Frost will therefore not kill the disease.

I search out every case of foul brood in this part of Canada and have never failed to effect a cure at the first attempt. In fact, there are a great many in Canada now, who no longer dread foul brood as they used to, knowing they can cure any colony with one or two hours labor.

We have had some good and valuable hints on foul brood in the journals, and some sheer nonsense. Fine spun, scientific theories are sometimes good, but solid facts from extensive practical experience is what suits me best.

So soon as I shall be able to find time it is my intention to write up more fully, a complete and exhaustive article, treating on the disease, its origin, and its cure, and by illustrations I hope to make it perfectly plain and clear so that the disease may not be looked upon, as at present, by many, as an incurable one.

Plant Life and Science.

An Address Delivered at Smithville Division Grange Oct. 30th, by Rev. Mr. Goodell.

The audience to be addressed must determine to some extent the nature and subject of the address. My auditors today being agriculturists, I have chosen as my subject, "Plant Life in Relation to Science."

Revelation states that on the third day of creation God said, "Let the earth bring forth grass, the herb yielding seed after its kind: and the earth did bring forth grass and herbs and the tree yielded fruit, and God said it was good." So the bible tells us that plants and trees were the first born organized bodies. They were the first to clothe the shoulders of the naked earth with emerald and beauty. The low lands smiled with grasses and the mountains waved with forests; the streams were lined with willows and rushes; the ocean was fringed with algae and festooned with the russet fucus; cedars and evergreens bordered the white fields of eternal snows; mosses were

spread over rocks; leaves, blossoms and fruit covered the trees.

Although Revelation thus gives the order it attempts no history or philosophy of plant life; it left that work for science to do. Not till within the last half century has the study of plants been made attractive or the attention of the farmer called to the subject. It is true, certain botanists of earlier date devoted some attention to classifying and describing them. But how and where they grew; whence their colors and perfumes; what were their nature and characteristics or the elements necessary to their growth; these were passed by as of trifling importance. Really the plants analyzed meant but little more than so much Latin stubble. Botany was rendered almost as unweaving as the inscription found upon one of the ancient monuments of Rome, which, carefully a soldier of the French army pried off one bronze letter after another, put them into a bag promiscuously, and sent them to Paris to be deciphered. But, during the last half century, the vegetable kingdom has been rendered most attractive. Science has laid open many of its hidden charms, and the microscope has portrayed many of its wondrous beauties. By the aid of chemistry the intelligent farmer may now determine the element lacking in his soil to produce a given crop, and so supply the lack and render his labor productive and sure. The scientist now finds, as he goes forth, manifestations of vegetable life almost everywhere. Whether he pauses where the rich corn waves, the clover blossoms, or the modest ferns hang from castle walls; whether he traverses land, or sea, or snow, he meets the greatest profusion of plant life. The nooks and dells, the slopes of hills and mountain steeps, the slaty crags and sand beds of pulverized quartz, all give birth to vegetable formation peculiar to themselves. That which has been regarded as a mere collection of filth is by the aid of science found to be plant life beautiful in its formation. The scientist has discovered the fact that no rock or scil can remain long exposed upon the surface of the earth without becoming wedded to some of the fairy forms of vegetation. He has learned that lava thrown fresh from the bowels of the earth by the volcano's force, is soon netted over with a soft, silky substance, sometimes strongly diversified with striking colors. The glass reveals the fact that this is simple moss consisting of little cells, which mature and die in quick succession. He has discovered that if a tract of sea bottom be lifted to the sunlight it is soon silvered over with mould, which the microscope shows to be made up of a great variety of fungi or vegetable formations. As ledges are exposed to the open air, our

observation teaches us that in a little while the rocky surface is covered with little, ugly, ashen patches of discoloration. Science shows us that these discolorations are little lichens or mosses, which fill a very important office in the economy of nature. At all seasons they are faithfully at work pushing up their inferior crowns amidst heat and cold, rain and sunshine. In scarcely perceptible urn-shaped vessels, they ripen dust-like seeds, shooting them off in concentric circles, thereby enlarging their boundaries line by line. Modestly they labor on till their race is nearly run, when they are required to dig their own grave. Nature furnishes them in their old age with vials of Oxalic acid, which bursts, spilling their contents upon the rock beneath. This, with heat, rain and frost, breaks up the stormy surface, until at length the lichens have become buried in a black mold. In these ruins soon appears a film of green. This proves to be the lowest order of mosses. Industriously they toil on for a period, when they make way for a host of fungi, which fix their stems in the clefts of the ledges, spreading out their umbrella-crowns to shield their wee neighbors. So they live and toil and die together till from their ashes a new order of vegetation springs. Grapes now grow over it; soon shrubs thrive above it, and by-and-by giant trees overshadow it. The barren rock has mysteriously become the home and haunts of numerous conditions of plant life. This was the process nature took to form soil upon the earth as its surface cooled from its molten condition into solid rock. The process is constantly going on before our eyes.

It was necessary that plant life should precede the animal. Directly or indirectly, all animated beings in the air or the sea or on the land, are supported by leaves. Destroy the foliage of a country and it would soon become arid and desolate. How many of us have paused to think, while enjoying the cooling shade of an elm tree, the complex operations of chemical and mechanical processes going on in its branches, or the vast area of surface which its leaves present, amounting to several acres in an ordinary sized tree. The vital or life-sustaining part of the air we breathe is oxygen. This is extracted from the air which fills our lungs at every respiration, and its place supplied by Carbonic acid gas. Should the Carbon become in the excess in the air, animal life could not be sustained. Carbon is the material of which the woody part of plants is principally built. Now, there are from two hundred to forty thousand pores or, so to speak, breathing apertures, upon every square inch of leafage, through which Oxygen is expelled from the de-

composed atmosphere and Carbonic acid is inhaled. What a wonderful apparatus is this! May we not say with emphasis in the language of the Revelator, "Leaves are for the healing of the nations." So in the light of science leaves become significant; they do not imply chance work, but a divine architecture specially intended to purify the atmosphere, so that men and animals might live; and at the same time manufacture the deleterious properties it abstracts from the atmosphere into fibre, and so aid the process of plant growth.

Science is bidding the intelligent look with careful scrutiny upon the vegetable creation that they may admire, enjoy and be strengthened. It is rendering the vocation of him who tills the soil, noble and gratifying. It stimulates the heart of the farmer at the close of the winter, as he looks upon the fields so desolate, brown and bare, with the consciousness that roots are stirring and buds are swelling, and that in a little while the whole surface will be clothed with the richest emerald. He knows that some unseen agent is fashioning with precision and elegance every blade and leaf. As summer and autumn comes he fully understands that some unseen hand sows the meadows with flowers and hangs the fruit on the trees. He learns of the sculptor who carves so perfectly the apple and the pear, and of the artist who paints the grape and the peach with purple and gold. Thus ennobled, the farmer can not feel that he is a handman, but a nobleman in the midst of Nature's grandest work. A natural fascination or charm appears to brood about trees and leafage. The Orientals found them peopled with fairies and fates. Taught by the oracles of the forest the Egyptian was led to rear his colossal piles. The Greek found their favorite deity embosomed in Laurel at Delphi. Plato established his academy in a grove of Olives. Cicero would often flee the Forum to enjoy the invigorating shades of Baiae. Who can rid himself of the influence of the elm, whose branches bent so gracefully over the old homestead; or the willow waving over the mossy well or the pebbly brook; or the conical maple standing on the hill as sentinel in sunshine and storm; or the gnarled beech growing in the angle of the roads, under which as school children we were so delighted to sport; or the evergreen which sings its sweet requiem summer and winter above the graves of those we loved?

When the early settlers first took possession of this country dense forests covered the land, and larger streams than at present ran on to the sea. The atmosphere was not so subject to sud-

Continued on page 12.

Essay for Prize.

THE IMPROVEMENT OF IMPOVERISHED SOILS.

BY ALLAN PRINGLE, SELBY.

The desirability of improving impoverished soils may be established by two or three simple arrangements:

1st. The labor involved in cultivating and cropping impoverished soils that produce only half a crop, is just about as much as that required to cultivate and crop rich soils that produce a good crop.

2nd. Time is lost; if the farmer only adds \$100 of profit to his net capital yearly instead of \$200 in consequence of working impoverished soil, he is out just that much time in his life work; or if he happens to be in debt, (which, unfortunately, is too often the case) and the interest on the mortgage amounts to \$200 a year, and he only clears \$100, through the bad farming, he will feel this element of time in the argument in a very tangible fashion, for although the farm may be only running on *half time*, the mortgage is sure to keep running on *full time*.

3rd. The products of impoverished soil are inferior in quality and deteriorate from year to year, and this is not only injurious to the farmer himself, but retards the progress of the community in which he lives and the country of which he should be a useful and productive citizen. The *desirability* of improving impoverished soils is thus made obvious by the three foregoing considerations.

In order to reclaim impoverished soils with least expense and delay, certain incidental information is indispensable, viz., which particular elements of fertility are exhausted, if not all? In the absence of chemical analysis this can be best inferred from the general character of the given soil. What particular crop or crops have been grown upon it, and what manures has it received? Are the vegetable elements of the soil deficient, or the mineral, or both? The elementary substances of fertile soil, the substances which are taken up and appropriated by growing plants, are lime, potash, soda, magnesia, iron, silica, sulphur, phosphorus, chlorine, oxygen, nitrogen, carbon and hydrogen. These are taken up in various proportions by the growing plants and become a part of their organized tissues, and where the plants are not allowed to remain, and rot on the soil where they grow, but are removed and no substitute returned there is corresponding exhaustion of such soil. And as particular plants require more of particular ones of those nutritive elements than of the others, if the some crop be put upon

the same soil from year to year the certain elements taken up will, of course, become exhausted and the soil impoverished to that extent. Such soil may be still capable of producing other kinds of crops without manure, only, however, to result in still greater impoverishment if its despoiled elements are not returned. In order, therefore, to improve impoverished soils with least expense and delay it is necessary to know what particular elements are exhausted, or whether the impoverishment is general. But as most growing plants require more or less of nearly all those elements, it will be prudent in the absence of such knowledge or analysis to assume a general impoverishment and act accordingly.

If the soil be wet the first step is underdraining. Then if the tillage has been the superficial kind, the dormant stratum of the soil proper, between the cultivated portion of the sub-soil must be turned up and exposed to the solvent action of the sun, frost and air.

Having thus underdrained the soil in question and turned up the dormant stratum of the soil proper, and exposed such under soil to the air, sun and frost for a season, it can then be treated to a liberal supply of manure. In the absence of the manure, having got the soil to the condition described, clover may be sown, and just as it is blooming plowed under; or, as a cheaper resource, sow to buckwheat early and plow under in bloom, and sow again and plow under.

The very important problem, "How to improve the impoverished soils," so prevalent in the older parts of Canada, may be solved in a few words, and summed up in one sentence, viz., *let the whole of the natural manures that the country produces be properly preserved and judiciously applied to the land.*

Under the ordinary circumstances of farm life in Ontario, where the farming is judiciously divided between stock and grain, if the fertilizing products of both houses and barns were properly saved and used the soils need not become impoverished, while those that are impoverished could soon be restored. As it is now the manures are half wasted or more. The excreta and slops, solid and liquid, of the household are at present nearly all wasted, while if properly preserved and used, that from a family of six persons would fairly manure fifteen to twenty acres annually. Or the barn-yard manure the liquid is at present nearly all wasted, much of the solid also through being exposed and thereby losing its fertilizing gases. If a horse, cow or other animal dies from diseases or other causes it is usually buried (if buried at all) in some out of the way

corner where it goes to nourish weeds, while, when properly placed in a compost of mould to decompose, it may be made to yield several loads of first-class manure.

To utilize the excreta and other fertilizers of the household at little trouble and expense, a ton or two of dry earth can be collected every summer during the dry season for the year's supply, and all composted with the excreta, etc., in barrels or boxes under cover; or vegetable mould or "muck" may be carted to a proper place convenient to the household and a mound formed to receive all the excreta, adding a fresh layer of mould from time to time. The muck, or mould may also be carted to the barn-yard and stables to absorb the liquid manure where reservoirs are absent.

To Restore an Exhausted Farm.

CANADIAN FARMER PRIZE ESSAY.

To restore fertility to an exhausted soil requires time if done profitably. I will suppose the person attempting the undertaking is at least free of debt and has credit to borrow money with which to buy cattle, that he is a practical farmer, and with sufficient experience with cattle to be able to buy at their market value. I will suppose the farm to consist of 100 acres, of which ten is waste and ninety tillable, and has twenty acres in hay and twenty more in pasture, balance stubble, and our supposed farmer commences operations in November. There are various methods proposed for the restoration of soils, green manures, artificial fertilizers, and barn-yard manures each having their advocates. My beau ideal is the manure pile from stables of fattening cattle, to be aided by mineral superphosphate, and until the farm comes under a regular system of crops some green manuring will have to be practised. My objection to green manuring is that it wastes a year usually. Under good farming there should be at least one good crop from each field every year. No summer fallows. The system I propose for the case I would not recommend every farmer to adopt, but for the purpose required we want a system that will extract the least possible amount from the soil and return the greatest amount to it.

In raising cattle the frame of the animal being solid along with the fat extracts from the soil. Cheese also comes from elements that are exhaustible on the soil, but the fat that is put upon the frames of animals is composed mainly of elements that are inexhaustible in the soil, hence for our purpose I would say, buy the frames and put on the fat. That portion of the feed given to cattle that are being

fatted that is not turned into fat goes back upon the land if carefully managed, and is more than sufficient to raise another crop, hence if this system is followed up the farm increases in fertility. Such a farm, when in good tilth, should feed forty heavy eaters each winter, besides growing ten acres of wheat and keeping the necessary horses, chickens, pigs, &c., for home use and service, and until the farm raised sufficient, enough additional should be purchased to feed that many.

The farm in ninety-nine cases out of a hundred, should be underdrained and sub-soiled, hence I allow twenty acres each year for this purpose until completed, summer following at the same time. If this is done thoroughly very likely fair crops will be raised until such time as manure can be applied, for it is evident that it will be some years until the whole can have a good dressing, and I find more profit in giving one field a heavy coat and doing the best I can with the balance than in scattering a little over many acres.

The following diagram will show proposed course to follow, field No. 1 being the model proposed for the whole as soon as manure can be spared for it:

1st year—Field 1, all the manure roots; field 2, fallow underdrained sub-soiled; field 3, oats; field 4, peas with superphosphate; field 5, hay; field 6, hay; field 7, fallow sub-soil underdrain; field 8, superphosphate on oats; field 9, peas.

2nd year—Field 1, fallow underdrain and sub-soil; field 2, all the manure roots; field 3, fallow subsoil, underdrained; field 4, oats; field 5, peas; field 6, hay; field 7, rye; field 8, peas; field 9, wheat with superphosphate.

3rd year—Field 1, rye; field 2, oats; field 3, all the manure roots; field 4, fallow underdrain sub-soil; field 5, oats; field 6, peas; field 7, clover; field 8, fallow sub-soiled and underdrained; field 9, millet.

4th year—Field 1, clover; field 2, rye; field 3, oats; field 4, all the manure roots; field 5, fallow underdrain sub-soil; field 6, oats; field 7, peas; field 8, rye; field 9, fallow sub-soil underdrain.

5th year—Field 1, corn; field 2, clover; field 3, rye; field 4, oats; field 5, all the manure roots; field 6, fallow sub-soil and underdrain; field 7, rye ploughed under, sowed with rape and that ploughed under; field 8, clover; field 9, rye.

6th year—Field 1, oats; field 2, corn; field 3, clover; field 4, rye; field 5, oats; field 6, all the manure roots;

Continued on page 7.

Stock

One of the largest and most experienced breeders and raisers of horses in Illinois says that if you will give one or two mouthfuls of hay to the horse before you water him, there will never be any danger of the horse being waterfounded. This is, as far as his experience is concerned, an infallible rule, and is worth being remembered by all horse-men.

The Coming Horse.

The horse for which there is a vacancy in all markets is the American roadster of 15½ hands and 1,000 pounds weight, with three inches more of height and three hundred added, without any loss of his present unrivaled excellencies. Already in every direction there are sires that are within one hundred pounds of this standard, and they are fast growing in popular esteem and patronage. And this active, heavy horse will ere long be developed and generally diffused. To satisfy the demand this horse must walk with the plow, or binder, or loaded wagon five miles an hour; must trot three hours together twice a day, with his own weight behind him, at ten miles an hour; and as the most symmetrical form proves the strongest, he must have a form of perfect symmetry, and a step and carriage elastic, vigorous and graceful. To do his best he must be under perfect discipline and control, and have the highest culture, so that his intelligence, gentleness and docility must be conspicuous. Such a horse is needed not only on the farm-machine and wagon, but also on the hack, the coach, the express wagon, the single family carriage, the transfer wagon, the fire engine and the artillery carriage and caisson; and is in increasing demand for stately carriages for our own and European cities. English buyers are coming regularly to our inland cities and paying high prices for roadsters of over 1,200 pounds; and New York and Chicago dealers are watching the breeding districts, and paying from \$600 to \$2,000 per span for horses for exportation; while the French government demand 10,000 foreign horses a year, has just found the way to our shores. But the horses secured are wanting in weight and in the per feet education essential for securing the highest prices.

Give us tests which will compel stallioners to break, harden and develop their large horses, as smaller ones are fitted for racing, and which will teach the farmer the difference in size, capacity, strength and endurance, between different horses and different families of horses, and it will be of immense benefit to all who raise horses,

to all who use them, and to all affected by their use. It is just as absurd to judge work horses without tests at work as it would be to judge trotters and runners without tests of speed. If the occupants of any judges' stand at trot or race should come down and examine the horses and assign the purses according to their grooming, as is done with work horses, it would be exactly as reasonable and just as is the custom of judging work horses at fairs.—*Breeders' Gazette.*

Working Colts.

It is a common practice to place a colt or young horse by the side of an animal of mature years, and compel it to do an equal amount of work. Apart from the inhumanity of such a course it is extremely unwise, and many valuable animals that gave promise of great usefulness have been ruined by such treatment. No young horse can, nor should he be expected to, stand the work that horses who have been injured to labor are able to do. He should be gradually accustomed to work. Give him half loads to pull and other light work to do until he has attained a size and build that will warrant him being put to regular work, and the day when his usefulness will have become a thing of the past will be postponed many years.

Stock Notes.

The Woodside flock of Southdowns have made perhaps the best record at the exhibitions this season that was ever made by a flock of Southdowns. They have been shown at 9 fairs and succeeded in carrying off 115 prizes, over 50 being firsts, including gold medal at Ottawa, and five other prizes for best flock; and out of 20 first prizes offered on lambs at the nine shows, this flock won 19 of them. The demand this season for Southdowns has been fairly good; the first 35 sold, being mostly lambs, realized \$1040.00, an average of about \$30.00 per head. Does sheep pay? Good ones do!

Increasing our Mutton Sheep.

It has long been our opinion that simple wool growing is not warranted on land worth more than twenty to thirty dollars per acre. The simple fleece, even if wool be 40 to 45 cents per pound, will not pay where cultivated grasses are grown and housed as food for a long winter. Since nature has provided for a double income, why should not the sheep farmer avail himself of both to the fullest extent? Our people do not fully appreciate mutton as a food, and we cannot be considered as expert in raising mutton as beef, but if we examine the quotations of our fresh beef and mutton exported, we

find that our mutton uniformly outsells our beef. It must be understood that the exporters seek the best of both for export. And if we appreciated good mutton as much as the English people do, we should have a very large market at home. There are strong reasons why farmers should consume more mutton; the first is, that it is healthier than pork; the second is, that it can be used fresh in summer better than any other meat. The quarters of a sheep can be kept, by aid of a little ice, in the hottest weather, till consumed by the family. It certainly would promote the health of farmers and their families to exchange some of the fat, salt pork for good, fresh mutton. It is very evident that our home market for mutton is capable of great expansion, and that the income derived from this would greatly assist in cheering up the discouraged sheep farmers.

Poultry

Edited by John F. Hill.

Queries and Answers.

(Under this head answers will be given to all questions of general interest in the case of poultry. Address, "Poultry Editor.")

Our editor's writings on the subject of poultry are intended mainly for the farmer himself. We conceive that a poultry column in a farmer's paper should deal with the poultry question as it affects the farmer, and we hope we shall have the aid and assistance of fanciers from all parts of the Dominion to do this, for while the wants of the two classes are to a great extent different, their interest are identical. While the farmer wants birds for profit and cares but little for the fine points that delight the heart of the fancier, he would be poorly able to satisfy those wants without the services of the fancier. The fancier breeds the birds for the birds; the farmer breeds the birds for the money they will bring him. This being the case we hope the co-operation of fanciers from all parts of the Dominion in making our poultry column alike interesting and instructive, and to the end of a more general diffusion of our best breeds among the farming community. Let us also have at least a short "ad" for our advt. columns, that when a reader wants stock he may know where to send for what he wants. In this way the fancier and the farmer will be brought nearer together and the interests of both forwarded.

The Plymouth Rock.

This breed of fowls, though scarcely known in 1870, is now without doubt, the most popular fowl bred in America. The breed organized in America and is distinctly an American breed in all its characteristics. The Rocks are a plain, matter-of-fact and everyday business fowl. They originated from a cross of Black Malay and Dominique

blood, although doubtless some of the noted strains of to-day have had admixtures of other blood, probably Cochin. Many parties are prone to think of thoroughbred poultry as less hardy and vigorous than the mongrel. Whatever justice there may be in the idea generally, it is sadly amiss as to the Rocks. They are the perfection of hardiness, vigor and all that goes to make up an ideal business fowl. The color is sober, the habit active, and the constitutional vigor sufficient to stand all that any other fowl can stand. The color is grayish white, each feather crossed with bars of blue black; the body, broad, deep and finely rounded, giving a form on which a large amount of flesh can be placed with little waste. The legs are stouter than in other breed of like weight; comb small, especially in the hen, thus little exposed to frost. The color of the shanks and of the skin of the fowl is a fine yellow, inclined in some cases to orange, in fact, they are an ideal yellow-skinned fowl and as such are much sought for in the general markets. As broilers at one to two pounds weight they cannot be excelled, and generally as a table fowl, they give the best of satisfaction. As layers they produce a large quantity of eggs at a time when eggs are valuable; as sitters and mothers they are the best, and while they are such, do not trouble like the Cochin and Brahma by an everlasting desire to set. They fatten readily and can be made to lay on fat before attaining their growth, a difficult job with any other breed. Fanciers have often a great deal of trouble in producing a nearly perfect bird as regards standard qualifications. And of the several noted strains none breed so true to form and feather as those of any other parti-colored fowl.

Musical.

The Knabe piano, which has such a wide popularity, is considered by many experts to be superior in every way to any other piano in the world. The success of this piano has only been attained by years of careful study, and the Knabe, with its excellent singing qualities, its great power, the elasticity of touch, and superior workmanship, is justly the favorite. Herr Faelten's piano solos at the recent Worcester festival, the Schumann's concerto, in A minor, op. 54, and Liszt's Rhapsodie No. 4, which were so highly praised, were both performed upon a Knabe piano, Herr Faelten pronouncing it to be the best piano he had ever seen.—*Boston Evening Traveller.*

Send 10 cts and get the FARMER till January, 1885.

Around the Hearth.

PANTRY POINTS.

SEASONABLE HINTS.

BAKED SUFF PUDDING.—Bring two cupsful of milk to a brisk boil in a spider, set it off from the stove, and stir in a cupful of Indian meal as soon as possible, pour in a cupful of maple or other nice molasses, a teaspoonful of ginger, a half teaspoonful of cinnamon, a heaping teaspoonful of salt, a half cupful of suet: stir well together, put in a two-quart buttered dish, and add three cupsful of cold milk, and a spoonful of vinegar, with a half cupful of raisins, currants, or butter still, of dried raspberries, set in a quick oven at first, and stir up two or three times the first hour, remove it to a cooler place, cover with a tin, and bake two hours longer. Serve with butter or cream sweetened a little, flavored with nutmeg. This is good for ironing day, and is so hearty that the first course may be a light one.

BOILED CIDER PIES.—Rub a half cupful of scraps of butter into three tablespoonfuls of flour, add a cupful of boiling water, and stir gradually together, add a half cupful of boiled cider, and two cupsful of sugar, set on the stove to cook all together a few minutes, set off, and when a little cool, add a beaten egg. Line two plates with crust as for apple pies, pour in your mixture, and if the plants are not quite full enough a little more boiling water may be added, cover, secure the edges carefully, and bake till done, and you have nice pies, especially nice in the spring when tart apples have gone by. A few chopped raisins cooked in the mixture are a great addition to these pies.

RIBBON CAKE.—One and a fourth cupsful of sugar, beaten to a cream with one-half cupful of butter, add three well beaten eggs, a half cupful of sweet milk, two cupsful of flour, with a teaspoonful of cream tartar, and a half teaspoonful of soda sifted through it, flavor a little with extract of lemon; take out one-third of this, add a teaspoonful of molasses, half teaspoonful each of all kinds of spice, and a cupful of fruit, bake this in one long tin, and the white part in two of the same size lay together, with a little jelly between, just enough to join them, the fruit cake in the middle. Frost it if you like.

MARLBORO PUDDING.—Six large apples stewed and strained, a cupful of white sugar, a half cupful of butter, the juice of two lemons, and the grated rind, also a little rose water, and three tablespoonfuls of hot water, one milk biscuit or Boston cracker, rolled fine, six eggs, beaten and stirred in. Line deep plates with a rich crust, have a pretty thick edging, pour in the mixture, and bake.

GRAHAM GEMS.—A cupful of sour milk, a half cupful of cream, a little white sugar; sift the bran from Graham meal, if you would have them nice, add an even teaspoonful of soda, dissolved in a little water, a pinch of salt, and meal to make a stiff batter. Bake half an hour or so and serve hot.

TO MAKE YEAST CAKES.—Boil together half a dozen potatoes and a handful of hops tied in a cloth. When the potatoes are done remove from the fire, mash them fine, put them in the hot liquor, set over the fire, and thicken them with three or four tablespoonfuls of flour. Let them cool till lukewarm, then add a cupful of good yeast and set in a warm place. When light stir in corn meal till a thick dough is formed.

Place this in a lump on the pasteboard and slice off cakes with a knife, dry in the shade, turning often while drying. Pack away in a close vessel where the air will not reach them.

The Judge's Heart Softens.

"The officer tells me that you were drunk and disorderly, and that you have often been arrested for the same offense," said Justice Foote, as he frowned through his eye-glasses at a hard-looking woman who stood before him. "I have no sympathy for women like you, and I will fine you a lun—"

"Papa!" interrupted a little voice, clear and sweet, and two soft arms stole around the judicial neck and a soft face was laid against the judicial cheek.

Justice Foote's frown changed to a smile. "Aha, you rascal!" said he, seized his little daughter and seating her on his knee. "So you came to see me just when I am hard at work, did you, and you slipped up behind me and tried to scare your old pap? Ah, you!" and he gave her a great hug.

Clerk Clingen poised his pen ready to record the fine: the lawyers took their seats with a smile; the prisoner was left alone before the bar. She looked at the little child and passed her sleeve over her eyes. For five minutes the old head and the young head nodded at each other, while from two red lips came a wonderful story of "Oh! such fun at the park" and how funny the deers looked! Then a bright ten-cent piece was produced from the jurist's pocket and put into a little hand. Then came a long, hard hug, and the little girl skipped away shouting good-bye as she went through the crowd.

When Justice Foote turned his face toward the court-room there was spread over it a smile that would have graced the countenance of a saint. "Where was I?" he asked, as he rubbed his glasses and looked down at the sheet. "Oh, yes, this drunk and disorderly case!" Then he looked at the prisoner. "You look like you might have been a decent girl once," said he; "I will give you one more chance. The prisoner is discharged."

Pleasantries.

Nature combs the rooster's head, but man has to comb his own.

Why is the sun like a good loaf? Because it is light when it rises.

Dress does not make the man, but it makes the women—supremely happy.

"Tell you it's blistering in the wood-shed," said Johnny as he emerged with his father, and he didn't refer to the weather, either.

"Will you have salt on your eggs?" asked the hotel waiter of the guest. "Oh, no, thanks, they are not at all fresh." Then the waiter went out to consult the landlord to see if the hotel had been insulted.

"What do you think of my moustache?" asked a young man of his girl. "Oh! it reminds me of a Western frontier city," was the answer. "In what respect, pray?" "Because the survey is large enough, but the settlers are staggling."

"Is the earth round or flat?" asked a member of a school committee of an applicant for the position of teacher. "Well I'm not particular about that," replied the candidate. "Some like it round, and some like it flat. I teach it both ways."

A tramp stopped at a house and asked for something to eat. "Which do you like best?" asked the hired girl—"steak or chop?"

The tramp meditated and replied, "chop." Step right this way, "said the girl; "here's the axe, and there's the wood-pile."

Without malice toward the lightning-rod man, we must still recite the fact that a New England insurance company that made millions and in doing a great business, will not insure a house with rod of any kind on it. When their policy goes on therelcomes off.

A little daughter of a minister, after silently watching her father write his sermon, asked:—"Papa, does God tell you what to write in a sermon?" With some little hesitation the clerical gentleman replied in the affirmative. "Then, papa, why do you scratch it out again?"

A cookery book says—"Always smell a salt codfish before buying it." We always do, and after buying it, to—for three or four days after. The fact is you can smell a salt codfish without buying it at all if you get within ten rods of where it is. The odor of a salt codfish is like the darkness that once settled on Egypt; it is something that can be felt.

European Woman.

A woman was seen recently in Naples carrying a coffin on her head, chatting gayly with a man who walked empty-handed at her side.

Not infrequently a woman and a cow are seen together pulling a coal cart through the streets of a North German city, a man touching them up, gently to be sure, with a whip as he walks beside them.

In Denmark it is not unusual to see a woman high up in a cheery tree picking the fruit, while a man lies at the foot, waiting to place the ladder when she is ready to come down with her burden.

"In upper Austria," writes a correspondent, "I saw a very pretty young girl carrying the mortar up to the second story of a building, while a man waited there to put it in place when she arrived."

A correspondent reports having seen a woman in Holland drawing a canal boat, bent nearly double with the leathern harness as she trudged along the tow-path, a man sitting at his ease in the boat smoking. [The correspondent certainly means the woman, not the canal boat, bent double.]

Make a Note of it!

Commencing Monday, April 20th, the Michigan Central and Canadian Pacific Railway join hands, and will run a new line of Palace Sleeping Cars between Chicago and Toronto without change. The car will leave Chicago on the Fast Express at 4:15 p. m., and reach Toronto a few minutes past nine the following morning. This being the only line of cars between the two cities proper, will become very popular, more especially as the roads over which it runs have fine reputations for excellent accommodations. A line from Chicago to Montreal will soon be formed by these same companies, the steel track of the C P being all laid, but not yet ballasted. This, when completed, will be the best equipped line in the country, and will open up an excellent route to Ottawa, Montreal, and the Eastern country beyond.

Storing Cabbage.

Cabbage does not keep well in the cellar, and, consequently where it is desired to keep for any considerable time for winter and spring use, they should be pitted away. To do this there are three general plans, either of which is good and each has its favorites, who insist that the particular plan they follow is the best and surest. They should not be stored and pitted away until they have ceased growing, or until cold weather in the fall. They can stay out and withstand a slight freeze without injury. A place should be selected that is easily drained as the heads should be kept dry.

The first plan is to dig a trench about three feet wide and as long as necessary to hold them. Pull up the plants and place them head downward in the trench packing as closely as possible, fill in between the stems with soil covering at least two feet deep slanting the sides and beat down with the back of the shovel until as firm as possible, so that it will turn water readily. If the work is done well, so that the water will not get through to the cabbage, and they are covered deep enough to keep from freezing, there is very little danger of loss. I have always found it a good plan to dig a small trench in each side so as to carry off the surface water.

The other plan is nearly the same, except that instead of putting the heads down they are placed in the same position as they grow. The advantages claiming for this plan is that there is less danger of rotting as the water can only be about the roots and stems, and the heads that have not fully headed up will do so before spring and be as good as other heads that were full matured in the fall. The covering is applied in the same way as in the first mentioned plan.

The last plan is to dig the trench and the cabbage heads with the stems just as they are pulled up in the patch, instead of covering with dirt, a covering of boards is first placad over them. A forked stake at each end to support a long pole, two or three feet clapboards are used, setting them in the edge of the ditch making a slanting roof. Over this the dirt is thrown thick enough to protect the plants from frost. This is the best plan though it requires more labor than either of the others, but it keeps the plants in a much better condition, cleaner and nicer. Whatever heads there are that have not fully headed up will do so during the fall and winter, and makes good heads for winter use. Another advantage this plan possesses is that you can get at the cabbage much easier during the winter to receive what may be needed for market or family use. If pains be taken to do the work carefully cabbage can be kept as nice and fresh as in the patch, by this plan.—N. J. Sheppard, in Farmer & Dairyman.

field 7, peas; field 8, wheat with superphosphate; field 9, clover.

7th year -Field 1, wheat with superphosphate; field 2, oats; field 3, corn; field 4, clover; field 5, rye; field 6, oats; field 7, all the manure roots; field 8, peas; field 9, clover.

8th year -Field 1, clover; field 2, wheat with superphosphate; field 3, oats; field 4, corn; field 5, clover; field 6, rye; field 7, oats; field 8, all the manure roots; field 9, peas.

9th year -Field 1, corn; field 2, clover; field 3, wheat with superphosphate; field 4, oats; field 5, corn; field 6, clover; field 7, rye; field 8, oats; field 9, all the manure roots.

Where corn cannot be grown satisfactorily, peas can be substituted. Now for reasons for the above course. Roots require a great amount of labor more than any other crop, and as it requires the same labor to raise 100 bushels per acre as it does 1,000, it is evident it will pay best to push this crop at any rate. Roots are harvested too late to be followed by wheat or rye, and as corn and peas do best after clover, the most natural crop after roots is oats. These are harvested in time for wheat or rye, but the roots and oats have exhausted the soil pretty well so wheat will not succeed, but rye may, and is the very best crop to seed clover upon, this latter being sowed in spring early when the ground freezes nights and thaws out day times. A dressing of mineral superphosphate gives the rye a push in the fall, and being a sturdy plant will hoe its own row afterwards. Clover is followed by corn or peas, as experience shows these do much better on sod than on stubble. It is too much work to move a corn crop off the ground in time for wheat, so we follow corn with oats, which should be a heavy crop. These come off in time for rye or wheat. For the reasons urged above rye would be best, but we must have some wheat, and will be obliged to sow it after oats, trusting to a heavy dressing of phosphate to carry it through. Wheat is a good crop to seed, so we follow with clover to be followed by corn or peas.

E. D. SMITH,
Winona.

"The play's the thing,
Wherein I'll reach the conscience of
the king."

And equally true is it that Dr. Pierce's "Pleasant Purgative Pellets" (the original Little Liver Pills) are the most effectual means that can be used to reach the seat of disease, cleansing the bowels and system, and assisting nature in her recuperative work. By druggists.

Send 10 cts and get the FARMER till
January, 1885.

Garden.

Preventing Winter-Killing of Wheat.

If we succeed in doing this, partially or wholly, it is likely our efforts should begin with the first measures toward the preparation of the soil for the crop.

The greatest enemy of the winter wheat raiser is frost. Eliminate that, and a good crop is, almost assured. There are insect beats, drouths and floods, but these do not do the damage that frost does. If all the conditions were favorable, wheat would produce one thousand fold, as a grain will produce a stool of seventeen culms, each bearing a head containing sixty grains. The national wheat crop shows a gain of only about twelve fold. It is evident there is a big loss somewhere. The causes other than frost already mentioned, defective seed, lack of fertility and unfavorable condition of seed-bed, may, and do, cause about half of this loss; frost causes more than half. On a field of wheat not badly winter-killed—which would make fifty per cent, more than the average crop of the best wheat producing States—there are not quite one-fourth as many plants growing in the early spring as in the late fall. Causes other than frost would probably produce the death of some of these, but the greater portion of the mortality is attributable to the action of frost. Of those plants that are alive, about eighty per cent, are injured by the same mischievous agent. As there are about 750,000 grains in a bushel of wheat, more than one million grains are sown upon an acre. Not more than 200,000 of these produce a harvest; often less. Frost is responsible for the greater part of this loss.

Very likely wheat occasionally experiences such a low temperature as would alone prove destructive. Just what this temperature, it has never been definitely settled; good authorities put it a figures ranging 13° or 14° apart. The temperature of the air and ground may fall to this; but if it does, it is a very rare occurrence, and but little of the usual winter mortality of wheat can be attributed to it. When it does occur, it must produce very nearly a total destruction of the plants, as every plant would be affected alike. It is not cold *per se*, but its action on the earth and the water that form the seed-bed, that proves destructive to the plant. And as this is dependent upon the water in the soil, we say the *frost*, not the *cold*, killed the wheat, as the frozen water in the soil has the appearance of frost; just as we say the frost is out of the ground in the spring, when the ice in the ground has been converted into water. As the term is commonly used, I shall speak of the effects of *frost* upon the wheat plant.

We do not know just what this effect is, but we have a pretty thorough knowledge of the subject. We say the frost heaves the wheat out of the ground. Now how is this accomplished? It must be due to an expansive movement. It can be nothing else. As it is gradual, it is not the result of a violent upheaval of the seed-bed, but such as would be produced by an expansion of the seed-bed, followed by contraction. As it could not expand downward, the movement must be upward; and as the soil moved upward and became less dense, it would admit of a lateral expansion; and in accord with this we find the ground loose, thrown up and honey-combed in the spring. As the ground is thrown up the plant is lifted up with it; and then when the ground settles down in the winter or spring as the result of rain or the melting snows, necessarily accompanied by increase of temperature (decrease of "frost") in the ground, the plants are left behind, and their roots are exposed.

Something expands. What expands? Not the soil, for cold does not *expand* earth. Not air, for cold contracts air. Then it must be the water, for water is the only thing in the seed-bed that cold expands. Ice occupies more space than the water from which it is formed. Between the particles of soil there is water; and as this is converted into ice ("frost") it occupies more space, forcing the particles of soil farther apart.

Then in a seed-bed entirely devoid of water, cold could not injure the plant; unless it was of that degree that it would, *per se*, prove fatal to all the plants. The best crop of wheat I ever raised was upon ground so dry in the fall that the seed did not germinate till spring. But then you say that was because there were no plants to kill. And it is true that in a soil entirely devoid of water the plants could not live. Hence we must have some water in the seed-bed; and the point is to have the least that the best growth of the plant demands, for the more water there is in the seed-bed the more expansion there will be and the more damage done.

The best way to secure this correct amount of moisture is to underdrain the land, but other measures can be taken. These relate to the preparation of the seed-bed, and I consider them far more important.

In no way can we prevent the expansion of the seed-bed, when it contains water. When water freezes it expands with a tremendous force—sufficient to cleave rocks, break metal globes, and shred the stoutest wood.

We are often recommended to prepare a very solid seed-bed, except a shallow upper stratum, and in this shallow stratum to sow the seed. Tho

who advocate this say that the expansion of the seed-bed *breaks* the root of the plants; and that if wheat is sown shallow, and the seed-bed so prepared that the root formation will be in a shallow stratum of loose ground above solid ground, the plant and the shallow stratum will rise together and the plant will not be injured. They assume that the shallow stratum will not expand, when it certainly will; and as the roots are all contained in this stratum, they will certainly be broken if the expansion ever does break them. Instead of the upper stratum not expanding (and these men assume that it is only the ground below it that expands, throwing it up intact,) it expands more often than any other, and to the same degree, hence is thrown up the most. It expands oftener, because the surface water (then on or near the surface) always freezes and thaws first, and will frequently thaw and freezes again, while that in the lower ground is not affected. These men are wrong in another thing. They assume that the expansion of the seed-bed breaks the roots of the plant, and that it is this which does the damage. They must be very careless observers, else they would have noticed that the roots of the plant are rarely broken. Examine the destroyed plants in the spring and you will find them lying on the ground with their roots wellnigh intact. Some few may be broken, but the vast majority will be complete, even to the very extremities. The truth of the matter is that there is no little strength in the roots; and the expansion of the seed-bed is so gradual and gentle, although very powerful, that they are pulled loose from the soil and drawn unbroken toward the top their entire length. Then when the earth is weighted down by rain or melting snow, they are exposed to such an extent that the plant dies.—
Country Gentleman.

Scientific Notes.

A gigantic jelly-fish stranded at Ceylon, weighed over two tons, and at night gave out light sufficient to read by. In ten days it had evaporated so that it weighed only a few pounds. In specimens of the genus *Aurelia aurita* there is 92.82 per cent of water, and in the solid large forms of *Rhigostoma* there is 5 per cent of solid matter.

Professor Elliot, of New York city, is conducting some interesting experiments to test the sensibility or insensibility of insects to pain. A dragon-fly was fastened to a board, and its abdomen severed from the rest of its body. The latter was then fed to the insect piecemeal, which it ate with evident relish, the parts eaten of course passing out of the severed end. Having eaten its own abdomen it was severed with six spiders and sixty flies, swallowing them all losing them immediately, evidently suffering no pain.

The Canadian Farmer.

The Organ of the Dominion Grange and Bee-keepers' Association of Canada.

The Only Semi-Monthly Agricultural Magazine in the Dominion.

Printed and Published by the Welland Printing & Publishing House Co.
DR. JOHN FERGUSON, M. P., PRESIDENT.

EDITED BY W. H. MONTAGUE, M. D.

All communications to be addressed to
Drawer A, Welland, Ont.

An error was made in our advertisement of the *Bee-keepers' Guide*. It should have been offered at \$1.25, at which price we shall be pleased to furnish it at any time. Any one sending a club or five new subscribers, accompanied by \$5.00, will be given the book free.

OUR PRIZE ESSAYS.

The examiners on the essays for "The Improvement of Impoverished Soil," have divided the prize nearly equally between Allan Pringle, Esq., of Selby, and E. D. Smith, Esq., of Winona. The competition was keen and the contributors numbered eight.

In the contest for the prize on "Home Butter Making," our examiners have not yet made their award. They have 11 essays before them, and will not have done their work in time for this issue. We are very much pleased with the result of these offers, and from time to time will offer prizes for essays upon various subjects. Our next offer will be made in our 1st of December number.

PRESIDENTIAL CONTEST.

The great American contest is over and Grover Cleveland is president. The campaign has been a bitterly fought one on both sides. Personal issues have been dragged into it with a horrid freedom, and the money bags have been opened freely on both sides. We believe, however, that Cleveland is the better of the two men. He appears to us to be a staunch, steadfast, unwavering opponent of trickery; and as such we welcome him to the gubernatorial chair. Blaine is an able man; he is also tarred with the stick of trickery, and his ability has been used in most questionable directions.

FARMERS' INSTITUTES.

The system of holding farmers' institutes, as proposed recently, is a good one, and it is to be hoped that our agriculturists in various sections of the country will take advantage of this means of improvement. Essex farmers have led the move, let others fol-

low. The principal of the Ontario Agricultural College, Guelph, will be pleased to correspond with all who desire an institute in their county or district. Our farmers, to compete with the farmers of other nations, must have a knowledge of scientific agriculture. Here is an easy and cheap means of getting it, and we hope to see it taken advantage of everywhere in the province.

Needed in Every Family.

We have just received from the Enterprise Manufacturing Co., Philadelphia, one of their No. 10 family size choppers. The instructions of the company were that we should give it a thorough test. We have done so and must pronounce it a model of perfection as a family chopper,—the best we have ever seen. It minces tough beet very readily. It should be in every household, and we have no doubt that hundreds of our readers will send to the Enterprise Manufacturing Co., Philadelphia, for pamphlet containing price list and illustrations. The chopper will please any one who uses it.

We call the attention of our readers to the Enterprise Meat Choppers advertised in our present issue. The demand for these Choppers has attained such immense proportions that the manufacturers have been compelled to largely increase their facilities for making them, and we are assured that they are now being turned out at the rate of 2,500 per week, 150 hands being steadily employed on them.

There can be no doubt as to the excellence of these Choppers, as they have been tested by the editors of nearly 100 agricultural papers, who have given them a hearty endorsement. We cordially recommend them to all our subscribers as by far the best machine of the kind ever introduced to public favor.

Fast Owl Express.

New Line R.R. on Chicago and St. Louis.

Commencing with Sunday, Nov. 2d, 1884, the "Burlington Route" (C., B. & Q. R. R.) will run fast daily trains between Chicago and St. Louis. These trains will be elegantly equipped with Pullman Sleepers, Reclining Chair Cars (seats free) and first-class Coaches, and will run through without change, leaving Chicago 8:30 p. m., arriving in St. Louis 7:45 a. m., and leaving St. Louis 8:00 p. m., arriving in Chicago 7:30 a. m.

The American "Sugar Beet" says:—The CANADIAN FARMER in its new and improved form seems to be meeting with immense success. Its editors seem to be thoroughly practical men. It is one of the best advertising mediums in Canada.

Correspondence.

Carrying Fruit.

ED. FARMER:—

There are two ways of marketing fruit for us growers who live distant from a post. One by wagon to some town or city near at hand; the other by express when not too far distant. The former method is preferable, especially for the young and energetic. But there is too much night-work about marketing to be relished by elderly people, and much of the best fruit country is too remote from towns or cities to make it profitable to haul the fruit there in wagons, and besides the more remote cities, towns and villages have to be supplied at any rate, so a large proportion of us growers are under the necessity of entrusting our fruit to the care (?) of the express companies, and they seem to be very sure they have us in their power forever. For not only do they charge exorbitant rates, but needlessly and shamefully damage and destroy the hard earned products of our farms and gardens, stacking baskets upon each other like cordwood, which compels us to hide the fruit under wooden covers and not fill the baskets full, thereby lessening its value. Pitching baskets from one to another and often allowing one to fall to the ground to be broken and bruised, and, in fact, handling the fruit from the time it leaves our hands until it reaches its destination, in such a manner that I am safe in estimating the deterioration in value at not less than ten per cent. upon an average. Now were this necessary we would not complain, but it is not in the least. There is nothing to prevent fruit being carried from one end of the country to the other without being bruised or injured at all, and surely the company are paid enough to do it; if not, let them charge enough to make it pay. But in all conscience \$200 for a car of 800 baskets from here to Montreal when shipped daily ought to be satisfactory, and that was a reduced and special rate obtained the year of the big crop of peaches. 33 cents per basket was the usual price to Montreal and Ottawa until this season, when it is reduced to 25 cents by the competition of the Dominion Express running on Canada Pacific from Toronto eastward. This company ought to be patronized by growers, as they put on shelved cars especially for fruit, and promise not to put one basket upon another and to handle the fruit carefully. But it is of little use to us who are compelled to ship to Toronto per American Express for the fruit is so damaged by them that further damage cannot affect it very much. I have frequently seen the car floor covered with choice peaches, pears, plums and grapes on its arrival in

London or Toronto, and have frequently lost all the profit on a shipment of fruit simply from rough handling. In one lot of 29 baskets recently sent to Guelph thirteen were so badly smashed that the grapes had to be placed in new baskets on their arrival, and the loss on the thirteen baskets eat up the profit on the balance. I wrote to the company about it, but, like all monopolists, they did not deign to stoop from the lofty eminence on which they rest, even to answer, much less redress the wrong. Growers scarcely appreciate the loss they sustain annually. Imagine a basket of sound, ripe peaches or plums offered for sale along side of an average sample after its trip through the hands of the expressmen, all the top of the basket bruised and mashed ready to rot in a few hours. How much difference in price would you make if you were going to buy? Ten per cent? But this is not all the loss to the grower by any means. He sustains a much greater loss from the fact that the fruit must be sold at once, when, if it were sound it might be held over for a better market, or re-shipped to other places. Let anyone notice in the window of a fruit store in some town, where grapes are obtained through the Toronto commission houses, who reship our fruits extensively, and he will see about one-fourth of the berries busted. These soon mould and are lost. What is the consequence? Why the dealer must charge enough for the sound grapes to make a profit on the whole. Could he be sure of all sound berries he could retail it at a much less price, and that means vastly increased consumption, and that means a larger demand for grapes, and that means more acres planted, and that means more baskets for express companies to carry, so that on the ground of policy or self-interest they should handle our fruit carefully. But we cannot wait for them to learn a lesson from policy that common honesty ought to teach them. Let the growers of fruit form clubs in every fruit-growing centre, and send delegates to a central club this winter to have this question discussed. This is too important an industry and the growers too intelligent and powerful a body to be thwarted and crippled by a foreign express company. There are many methods of carrying our fruit to market independent of them. 1st. By union it is practicable to have a light steamer call at the various points along the shore of Lake Ontario. 2nd. Grapes, pears, apples, currants, gooseberries, etc., can be carried by freight in car lots to central points to be distributed by agents of the united fruit-growers. The difference in freight rates and express rates would more than pay wages of agent. 3rd. Perhaps arrangements could be made for a special box

car, which is all we have at present, to be hauled by accommodation trains, and to be loaded and unloaded by the growers or their agents. With determination to succeed, this intolerable grievance can be righted by the growers themselves if they unite. The American Express Co. will do nothing until forced to it. It is only wasting ink to complain to them, or to ask for careful handling. Fruit, to bring its full value, should be covered with bright cardinal muslin without bars, so that the fruit can be plainly seen in all its bloom and beauty, and the baskets should be filled heaping full. A full basket always sells better than one not full, even if there is no more in it. We are debarred from both of these privileges, being compelled to cover with heavy wooden covers and not fill the baskets over level full to save them from being altogether destroyed. The Niagara people have an advantage over the rest of us in this matter. They ship by boat to Toronto, and competition between boats insures no stacking of baskets and careful handling, so they round up their baskets and beat us in prices though we give more fruit, shipping in larger baskets.

E. D. SMITH,
Winona.

Huron County.

Beautiful autumn weather so far, only one's frost and a brisk shower of snow which soon disappeared and was followed by some rain, and now, Oct. 28th, feels like May weather, with grass growing again and winter wheat in most excellent condition. It has not been sown in nearly the same breadth as formerly, but never before was so much care and labor used in performing a seed-bed, and the result is already apparent in the fine, stocky appearance of the crop. This is as it should be, since the great prairies of the west will force us to raise a maximum crop or fall by the attempt. Considering the harsh state of the land last spring and the difficulty in getting a fine seed-bed, roots have done fairly well. Carrots fine, mangolds good, very heavy on stony land, turnips, still young and growing, of fair size except on a few patches of black ground, or were injured by the drouth and heat of summer.

M.

South Huron, Oct. 28, 1884.

Too Much of a Good Thing.

ED. CAN. FARMER.—When it rains it pours. It is customary to exaggerate both good and bad reports. We are prone to run to extremes: all classes seem to be more or less afflicted with this human malady, and farmers are no exception to the weakness. When, on clay land undrained, a few rotten potatoes are found the alarm goes out that

the crop will be lost. If a crop should be short in a few localities, the shortage is magnified so as to cover large areas, until the real state of affairs become known at a later period. When crops are below the average and prices advance, some people are so extravagant in their expectations as to believe that it must continue to rise to starvation rates, and will refuse to sell till it begins to sink and then sell at ruinous loss. Again, when fair crops come and low prices the general verdict is that there is such an over supply that consumption is impossible, and all sorts of stories are set afloat to reach the other extreme. These chronic hypochondriacs are bent on searing us to death either with a starved or plethoric phantom of their own creation: in fact they cannot live without it. Speculators and shrewd dealers dress the spectre to suit their purpose, and often manufacture or manipulate market reports and foreign capacities to swell the scare, until a reaction sets in to dispell the gloom. At the present time with full average crops in America and Europe and breadstuffs of good quality coming after a season of scarcity and depression, when holders are pressed to sell and buyers are willing to take advantage of the situation, the sage Solons are testing ingenuity to show us that there is such vast stores of wheat on hand and such foreign capabilities of production, that the bread staple must become lower and remain so. There are numerous reports of the wheat belt of India and its cheap labor, and the great danger of a flood of cheap wheat from that region. Those that have any knowledge of the climate of India and of the vast amount of capital required to grow wheat there, will smile at such wild speculations which are either innocently used by those who know no better, or thrown out to make a scare. The cheap price of land there is sometimes given in comparison with farms in the wheat belt in America, but when we know that any European who wishes to engage in farming in that country, can get all the wheat land that he wishes for the asking, but that one who could buy out an improved farm in Canada would need a snug fortune additional before he could begin to grow ten acres of wheat, because rain never falls there in summer, and even their best land is useless without water, and their fields must be treated somewhat after the plan of our rice lands of the Southern States, by frequent irrigation during the growing season. The wheat lands of India can be located only at short distances from rivers, from which the water has to be raised generally by steam power, stored in a great reservoir, whence, by a system of drains, it is gradually filtered over the soil. Let any one try to figure what it would cost,

even with the cheapest labor, to flood our wheat fields twice or three times a week from the first of May till the first of August, after having sunk a few thousand pounds in aqueducts and drainage works, and the bugbear of cheap wheat from India will vanish. It is true that where capital enough is at hand and a desirable site has been got, large crops can be raised with certainty under their sun at a temperature of twenty or thirty degrees hotter than ours, the cost of supplying water and the interest on capital invested will always form a large item and prevent them from competing successfully with farmers of Canada, whose irrigating showers and balmy dews are wafted from the Gulf of Mexico, or great inland lakes without the labor of pumping. There is no great danger of a surplus at low rates from India, and no one in the Dominion need have a nightmare on that account.

FARMER.

Information Wanted.

ED. FARMER.—Being a chemist and used to deductions from science, perhaps you, or Prof. Mills and his able staff of assistants, could decide on a point on which I am not very certain, and that is "should ground on which root crops have been grown this season be plowed this fall or only gang-plowed and be plowed before seeding to grain next spring." So far as experience goes we have been forced to omit plowing in the fall and have plowed after the roots were harvested, but the question is "will it be profitable to fall plow or not provided there is time and the land in proper condition? The question to be decided in this case is not what we may do, but what we should do. It will be conceded on all hands that root land plowed in the fall will be pulverized by the frost, and will work earlier and finer in the Spring following. But is there not some danger of the ammonia and soluble compounds of the fine, rich surface soil being washed too low down or being leached away when turned down in the fall? Would it not be safer to gang-plow lightly so as to turn the soil over, only two or three inches deep, so as to cover up any little weed that happened to escape the drill harrow or weed seeds that have started, and watch a favorable time to plow and get a good seed bed in Spring. Of course, this applies to loamy clay such as we have in Huron. Yours respectfully,

M. McQUADE.

Edmondville, Oct. 26, 1884.

Any Small Boy With a Stick.

can kill a tiger. If the tiger happens to be found when only a little cub. So consumption, that deadliest and most feared of diseases, in this country, can assuredly be conquered and destroyed

if Dr. Pierce's "Golden Medical Discovery" be employed early.

Notes.

Is your garden a wilderness of weeds? Has your farming been profitable this year? If not, why not?

Are you hurrying up your husking? Delay is loss in storing, grain and personal comfort.

Do you select your seeds of all kinds with care? Then you are never troubled with crops "run out."

Have you time for fall plowing? Done with judgment and in season no work pays better.

Do you make your wife your counsellor? As a rule you can depend upon no wiser head, truer heart or readier hand.

Have you plenty of grapes? A vine will grow in almost any corner. Concord is the grape for the million, but there are a hundred fine kinds.

Do you aim at the best results, practice the best methods and study to succeed, or are you in the rut? Make use of your brains as well as your hands.

Which is the best potatoe? It is not well to plant more than three or four varieties, however good, except in small quantities by way of experiment.

Have you apples? Pick carefully, handling like egg, sort as though you were to be the buyer instead of the seller: put up attractively, marking each package with your name, and sell on their merits.

How do you save money? By pure miserly clutch inside the house and out, or by good business management tempered by a due regard for the privileges and requirements of the nineteenth century?

Do you keep a memorandum of odd jobs to be done? You will find it useful on wet days and also at other times when the ordinary farm work can not be proceeded with to advantage. Never order your hired help to do a chore for the mere sake of keeping him at work. A few minutes spent in resting through your forbearance is not time wasted, to the right kind of man.

Can you afford to keep unprofitable animals? Make beef of your old milch cows. Yet, lest he might be abused, I would not sell an old horse whose life had been spent in my service. Have you cut down a thrifty orchard because it had not borne any fruit for two or three years or pulled up your hop vines because the price had been low, or planted largely of potatoes because the price had been high? As a general system of mixed husbandry is the best. Specialties should be adopted or discarded only upon mature consideration.

THE CANADIAN FARMER.

Published by the Welland Printing and Publishing House Company, Welland, Ont.

All communications for the CANADIAN FARMER AND GRANGE RECORD must be addressed to the Business Manager, Drawer A, Welland

THE ADVERTISING RATES Made known on application to this office.

DOMINION GRANGE OFFICERS.

- Jabel Robinson (re-elected) Milltown, Ont. ... M. R. W. McDonald, Picton, N. S. ... R. J. Davis, Owen Sound ... Henry Glendon, Monville, Ont. ... J. P. Hill, Downfield, Ont. ... J. S. Trull, Oshawa ... T. S. McLeod, Dilston, Ont. ... Charles Moffat, Kitchener, Ont. ... Wm. Brock, Adelaide ... Mrs. VanCamp, Bowmanville ... Mrs. R. J. Davis, Owen Sound ... Mrs. Moffat, Kitchener ... Mrs. McLeod, Picton, N. S. ... EXECUTIVE COMMITTEE - Short Currie, Wingham, Ont.; A. Gifford, Meaford, Ont.; A. Servos, M. Wilkie, Meaford, Ont.; I. Vancouver, Bowmanville, Ont.

OFFICERS OF PROV. GRANGE.

- STABO: Alex. Servos, Master, Niagara; A. Gifford, Secretary, Meaford. NOVA SCOTIA: Master, A. B. Black, Annapolis, N. S.; Sec., A. McQueen, Point St. Hubert, N. B. EXECUTIVE COMMITTEE - Elwin S. Craig, Newport, and W. F. Gour & Sonville, N. B.

The Grange

ED. CANADIAN FARMER. The remark has often been made by both brothers and sisters in the Subordinate Granges that they did not see much good in the Grange. They paid in their dues but did not seem to get much for them. How many of these very men and women have left the Grange, saying they had nothing against it, and would stay in if they could see any good in it? Question what qualified deputies visited these Granges, that could not tell by the occupation of the evening that they were working in a wrong groove, and set them right.

To those who are yet members working in the dark, I would quote "whether farmers have graduated in the college or the common school, the Grange supplies to them a long-felt want: where the valuable lessons of the school the farm and the household can be reviewed, familiarized and made useful and practical, where men and women can accustom themselves to public reading, reciting and speaking, where valuable knowledge can be received and imparted, by lectures, essays, discussions and in the exchange of views upon important questions; where the higher and nobler qualities of human nature can be developed and made more lovely and more loveable; and where the widow and the fatherless though poor and burdened with affliction, can feel that they are not doomed, isolated and alone, to toil on through life without friends, sympathy, society or hope of advancement, but know that they are members of a great fraternal brotherhood, united by a common interest, laboring for the good of all." To build up our

Subordinate Granges and make them temples of wisdom, and equality. Many Brothers have sought in personal ambitions, and have labored earnestly for their own gratification, but ulterior purposes have absorbed their efforts, for they have lacked that unselfish desire which is absolutely necessary to wholesome progress of the order. Not all of them, it is true, perhaps not a large proportion of them, have been so half hearted, but those who have been so minded, have deterred others from real work for which the Order was planned. The question is asked frequently, why should women be in the Grange? Why should they not? Are they not toilers with their husbands? Upon these two depend all other classes for their bread and butter their vegetables, meat and clothing. Then why should not the wife and sister be participators in any knowledge that can be gained. The influence of women in the Grange is great indeed. Let any member call to mind the observations regarding Grange work, its achievements, its progress and its general character, and mark if he will, the impelling force. There must be in it a dominant influence, bearing all minds towards the true purposes that incite wholesome effort. The candid observer must say, if he expresses his thoughts at all, that the influence of women has been very great in holding the Grange in its true work. That women impart a larger measure of vitality because of their singleness of purpose, perhaps because of their fuller and keener appreciation of the grand objects to be accomplished. Another very necessary object to bind the farmers together is the agricultural papers. In these he finds the opinions of other farmers with broader opportunity perhaps, in any case reports of experience and observation in his own line of business, by which he may obtain information. A father cannot bequeath an education to his child, as he can his fortune. Education must be obtained by self exertion, and I feel positive that if we ever accomplish the grand mission for which our organization was formed, it must be done by an educated people. It is the educated class who are now at the front making laws to control the farmer who is in comparative ignorance, or to say the least, in the background, creating the wealth in a great measure, that moves the world. I believe that were the Lecture Bureau to send to each Division Grange a practical teacher in chemistry, geology and botany, one who could explain the relation of insects to vegetation, it would be the very thing needed and interest for his money would be received by each farmer that he could never lose, but could hand down to his sons and daughters who

did not learn these subjects at school, and nothing would give me greater pleasure than to know that in the near future, spelling, reading, arithmetic, chemistry, botany, geology, physiology, geography, natural history and Canadian history were made the specialties in our rural schools. I have been to a fair or two lately, and I doubt had our farmers been educated in such a school as this that they would be content to see the prizes go to the fastest horse. I cannot see that it is just to agriculture to give high prizes to men who can afford to pay for or spend their time in training horses for style and speed.

Again, I cannot see why with all the latest improvements in land and land culture, that there is so much warmth of feeling wanting in the interest of agriculture. It seems that each exhibitor claims the judges as his own, and thereby feel sure of the prizes being conferred on their own special things brought in, for if no prize is received, instead of feeling that their articles are not up to the standard, they vent their disappointment on the judges, who are persons selected by the directors with forethought and confidence. Surely there must be some remedy for this. But I am afraid I may hear again the remark once made. "I don't like that woman, she's got too much brass; the idea of her standing up before all these men and talking that." So if there are any sisters here who feel that way, I can only say: I pay the Grange to educate me, and I when I can't learn something by using my tongue that will assist me and those belonging to me, I will leave the Grange. But my sisters, it is only by telling out our thoughts like we do in our own home that others will give us theirs, and in this way we learn much useful knowledge to impart to our children, who will take our place in the world. Our Grange gives us work to do and the foremost need in every great and good cause is the workers, and the man or woman who engages in any cause of merit, must not only have a knowledge of, but a will to accomplish desired results; these together, sum up both the personal characteristics and special requirements, which with the aid of science and perseverance will bring success in almost any undertaking. To Brothers and Sisters, let us work on together that we may realize our every hope of the future, and bear in mind that as a fifth degree member it is necessary you do not forget the sign or password and that earnest work is expected of you.

POMONA.

Dyspepsia, liver complaint, and kindred affections. For treatise giving successful self-treatment address WORLD'S DISPENSARY MEDICAL ASSOCIATION, Buffalo, N. Y.

Niagara District Division Grange.

Smithville, Oct., 30th.

Niagara District Division Grange, No. 3, convened in the Agricultural Hall, Smithville, on Thursday, Oct. 30th at 3.20 o'clock, p. m. Bro. J. W. Springsted, overseer in the absence of the Master, presiding at the opening, called upon S. W. Hill, Esq., Past Master to preside. Bro. Hill, after thanking the Patrons for present and past courtesies extended to him, proceeded to open the Grange.

Officers absent Stewart and Ceres. Bro. S. H. Nelles was asked to fill the vacant stewardship; Sister House to act as Ceres.

Minutes of the last meeting at Ridgeway were then read and adopted.

Suggestions for the good of the Order Bro. Cobb offered objection to the wording of some part of Committee's report re the impossibility of meetings to be held in Owen Sound in connection with the Grange Fire Insurance Company. This question was the cause of some discussion. The acting master ruled that the minutes as read and adopted would necessarily stand confirmed. At this point a Bro. from Clinton Grange, No 69, Beamsville, was heard in the following.—"I came here to see what arrangements can be made, re Clinton Grange, now going behind. I am desirous to know what arrangements can be made to get Clinton Grange in good standing." At the suggestion of the Prov. Master, a committee composed of Bro. S. A. Nelles, R. W. Cobb, W. T. House and Prov. Master, A. Servos, was appointed

During the absence of the Committee, short addresses were delivered by Bros. Ginn, Morse and Muir Bro. Springsted suggested that persons be appointed to look after the collection of dues remaining unpaid. Suggestions were made that the deputies be and are the proper persons to look after and make such collections.

Committee re the Clinton Lodge, at this time reported as follows:

"Your Committee beg leave to report having had under consideration the present position of Clinton Grange. They have considered the recent losses sustained by members of that Grange, also the loss of membership; would recommend the Division Grange to accept in full payment of account for dues, such an amount as may be due on present membership in good standing for the present year, (said membership to be not less than thirty) trusting that our Sister Grange may have entire success in the near future. All of which is respectfully submitted.

R. W. COBB, Chairman, S. A. NELLES, W. T. HOUSE, ALEX. SERVOS.

On motion of Bro. Cobb, seconded by Bro. Servos, the report was unanimously adopted.

A series of questions from the Legislative Assembly, asking for an expression as to the advisability of reducing the members of County Councils to one, dispensing with deputy-reeve, or increasing the number of qualified voters required for deputy-reeves; dividing the counties into electoral districts and electing representatives therefrom, or giving to each reeve voting power, equal to the present representation; and many other questions involving many changes in the Municipal government of our counties.

Moved by Bro. A. G. Muir, seconded by Bro. D. Fretz, that the communication received from the local Legislation, lessening the number of Co. Councillors and regarding certain bridges situated in villages, &c., be laid over until next meeting of the Division; and that the secretary be instructed to notify Subordinate Granges that they may express their views on those subjects before that meeting, and report to secretary.—Carried.

At this point, fine selections of instrumental music were given on the organ by Sister Jennie Cobb. The song by Bro. Field, "Ere Jack Comes Home Again," was well rendered and loudly applauded. The recitation by Mr. E. Morse, "Curfew must not ring to-night," was well received. An address by the Rev. Mr. Goodell, of New York, Subject, "Plant Life in relation to Science. We give in full in this issue and feel assured that a careful perusal thereof will prove interesting to others, as it was to the numbers who gave its delivery every attention. Sister Cobb was again called upon and pleased the Grange with "Only a Dream."

Bro. S. W. Hill, was at this point asked to address the Grange. In the introduction Bro. Servos spoke of Bro. Hill, as being almost the founder of the Grange in Canada. Bro. Hill spoke feelingly of the past, and the fact that the interest that had for a while been flagging was rising as was evidenced by the interesting tableau on the stage to-night. The ladies have again taken an interest in the success of our Order, and it is again growing, rapidly growing. His pleasing remarks were carefully heeded by the entire Grange; his anecdotes, references and their application pleased the fancy and brought the hearty, happy laugh. His reference to the CANADIAN FARMER as the organ of the Grange was a very flattering one.

Bro. John Fields responded to the call of the chairman with a pleasant song, "That little German house across the sea." His imitation of the

broken German was pleasing, if not very "Teutonic."

Bro. W. H. Montague was now called upon, and in response complimented the Sisters, kindly referring to Bro. Hill, occupying a few minutes pleasantly. He was evidently not an advocate of women's rights, and received a deserved castigation from Bro. Servos, acting Master.

Bro. A. Morse, of Smithville responded to the call for an address, by reminding the Division that it was growing late, and that he had, with many others ridden the goat. When reminded that duty required obedience from the soldiers, he gave an interesting address, complimenting the rich appearance of the court of Pomona. He referred to the Doctor and women's rights, saying he could feel assured that he (the Doctor) would come to the right side. He referred to the Queen in connection with women's rights, "God bless Her." He expressed his entire confidence in the usefulness of the Grange, and the application of its precepts to the use of the farmer. He compared our pleasant Grange and its master, with the first created human being, in the Garden of Eden and the instructions given them to cultivate the earth. He cited the celebrated legislators, commanders, and statesmen that have emanated from farmers, commencing with Moses the greatest prophet and legislator, Elijah the prophet, and many others. The great success that had attended the great agricultural monarchs, of the ancient days. Solomon the greatest and wisest man that ever lived was a cultivator of the soil. "Coming down to later days we know that Cincinnati was taken from the plow to govern Rome." He cited Cato's description of the beauties of farming life, and asked the Grange to look at the advantage gained in the country. "Fifty-four years ago I attended the first Agricultural Society ever held in Canada; it was held in the neighboring township of Clinton. At the 30-mile creek the first fair was held; comparisons of that first fair with the exhibits of to-day would be unfair." The ladies were not permitted to exhibit their works on that day and only certain classes of products were permitted to compete. A grant of £80 was made by Gov. Simcoe in 1794, but we do not know what became of it. Some of our greatest men of the present day have emanated from the plow; the greatest and best of men are being raised from the agricultural ranks. The association of the ladies has done much for our Granges, is doing much, and was it not for their association with us we could not make our meetings the pleasant agreeable assemblies that they are. The society of the ladies has been the

refining and protecting influence of the Grange and of every society. The ladies of to-day have come to the front in science, medicine, and nearly all the branches, and one is now a candidate for the presidency. The speaker reminded the Division that he was an octogenarian and yet not too old to plant and care for the work of a husbandman, and declared that had he hoped to live 5 years more, he would hope to continue so to do. Bro. Servos in summing remarked that we had heard first from the clergy man, a farmer, then from the Dr., a farmer, and manager of the CANADIAN FARMER.

Before closing, Bro. Muir moved seconded by Bro. Montague, that the hearty thanks of this assemblage be tendered for the pleasant entertainment and ample supply of good things supplied by the Sisters of Ivy Grange. The vote was a unanimous standing one. Sister Nelles remarked that Ivy Grange supplied the first equipped room prepared to give the fifth degree. Bro. Cobb replying on behalf of the Ivy Grange, disclaimed any particular credit. The members could not help the preparation. They had made a natural effort to entertain their friends; they desired to see their friends often at Smithville.

The speaker moved, seconded by Bro. Morse, that the thanks of this meeting be tendered the speakers and the Acting Master. Carried unanimously.

Sister Nellis asked that Sisters be asked to bring in suggestions as to butter making, and that it be made peremptory.

The Grange closed harmoniously at high twelve. Cov.

M. W. DUNHAM

Wayne, Du Page Co., Illinois.
HAS IMPORTED FROM FRANCE
Percheron Horses valued at \$2,000,000,
which includes

75 PER CENT OF ALL HORSES

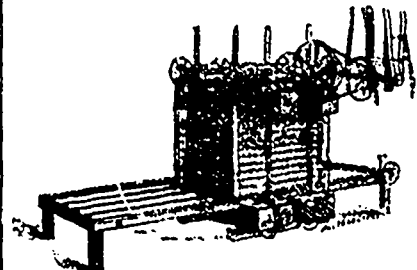
recorded in the **GRAND BOOKS OF FRANCE**.
EVER IMPORTED TO AMERICA.

STOCK ON HAND:
150 Imported Road Horses,
250 Imported Stallions,
100 COLTS.
Two years old and younger.

Recognizing the preference accorded by all intelligent breeders that how ever well bred animals may be said to be, if their pedigrees are not recorded, and cannot be authentically given, they should be valued only as grade. I will sell all Imported Stock of Grade Price when I cannot furnish with the animal sold pedigree raised by the original French certificate of its number and record in the Stud Book in France. 140 Page Catalogue sent free. It is illustrated with Six Fine Lines of the Exhibition of the **St. Louis Exposition of 1884**. Issued by M. W. Dunham, and drawn from life by **Reed Donker**, the most famous of all animal painters.

CATARRH CURED.

A Clergyman after suffering many years from those loathsome diseases Catarrh and Bronchitis, after trying every known remedy, at last found a recipe which cured him, saved his life. Any sufferer wishing the Recipe will be furnished free of charge, by sending their address and two cent stamp to Dr. M. K. CANN, Box 384, Jersey City, N. J. (Mention this paper.)



CIDER ! CIDER !

Presses, Grinders, Hand Mills, Elevators, etc. "The Joint" Presses, "Knox" and "Hick" Grinders, Best Cider Machinery in the World. Catalogues free to any address.
M. P. FERRIS & Co.,
Fulton, N. Y.

The Great "Francis B. Hayes."

A New Variety of White Grape

Pronounced by eminent Horticulturists to be the Best White Grape Grown.

Write for circulars, price list, etc., to

John B. Moore & Son,
Horticulturists, Concord, Mass.

To Horse Owners.

GOMBAULT'S CAUSTIC BALSAM,

The Great French Veterinary Remedy !

Prepared by **J. E. GOMBAULT**, ex-Veterinary Surgeon of the French Government Stud. Has been in prominent use in the best Veterinary practice of Europe for the past Twenty Years.

A Speedy, Positive and Safe Cure

For Curb, Spavin, Swelling, Capped Hock, Strain, or Tendinitis, Founder, Wind Puffs, all Skin Diseases or Eruptions, Trench, all Inflammation, all Throat Difficulties, all tumours from Spavin, Kingbone, and other bony tumours. Removes all Bunches or Blenches, and many other diseases and ailments of Horses and Cattle. Far superior to a blister, or cauterization in its beneficial effects, never leaving a scar or blemish.

We Guarantee that one tablespoonful will produce more actual results than a whole bottle of any liniment or squib cure mixture ever made.

Every bottle of **CAUSTIC BALSAM** sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

LAWRENCE WILLIAMS & CO.

NIAGARA GRAPE VINES.

No Restrictions as to Planting.

First-Class 2-Year Vines, \$3 Each.

Grape Vines of all the leading kinds at bottom prices. Small fruit plants, old tried kinds and latest novelties. Russian Mulberry very cheap. Send a list of your wants for quotations and a free price list.

(Continued from page 1)

den changes, and the Indian summer was quite certain to drop its week of wooing warmth into the bosom of November, and the fleecy snows would seem quite certain to introduce winter year after year on almost a precise day. But as the forests were cleared away and soil broken the conditions of land and sky began to change. Those early pioneers were forced to struggle with their might to grow corn sufficient to meet their necessities. They toiled much and they toiled hard. They endeavored to do here precisely what their fathers had done in the Old World; but they learned at length that eastern industry was not just the thing for these Canadian lands. After a long while there came a change. They began to court science, studying the nature of the soils and the conditions of the climate, so that the outcome of the wild apple and grape is the golden pippin and the Catawba; and in place of malarial marshes are smiling gardens and widely-extended meadows.

The successful farmer is now quite dependant on science. It aids him in analyzing his manures and soils and adapting fertilizers to the wants of his fields. All these are boons to the farmer, whether in the orchard, wheat field or potato patch. Had the early settlers of this country known what many now understand they would not have made such havoc among the grand old forests. They would have been more sparing of many trees in certain localities, which would have proved blessings as well as ornaments. Fellow grangers, like the great Apostle to the Gentiles, "magnify your office" as tillers of the soil. Educate your sons to respect the calling, eye! to revere and honor it; and as science comes to their assistance with the improved implements of agriculture they will become the true yeoman of your country, upon whom its prosperity rests; and into whose keeping its honor is safely entrusted.

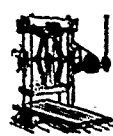
Through geology, botany, chemistry, zoology, astronomy, all of which your children should be instructed in, the rocks, plants, stones and living things may become their friends and teachers. They need find no drudgery or sameness connected with this calling. Their minds may be constantly refreshed with something new. They can cultivate the soil so as not to ruin it or run it to waste; even they can redeem old lands and make "deserts blossom as the rose." All this is significant of a bright future to this Dominion. As its surface shall be dotted over with progressive minds and diligent hands, farms will be multiplied and orchards and gardens smile on every side. That the Province of Ontario is advancing

to such a state is evident from the fact that lands are being improved; that educated labor meets a ready demand; that agricultural societies are becoming numerous; that weekly papers devoted to this subject are being read in nearly every home. All this is full of hope. Let the watchword still be onward and the action upward, and the brightest future is before this country. Her lands will be possessed by the noblest men and women. Unlike scarcely any other country, save the States across the border, her people will own the soil they till, and here, as there, the happiest homes and churches, the best schools and institutions will abound in all the Provinces. May we not say such a condition is possible, yea, probable?

It is no new thing to be especially interested in plant life. Gardening is one of the ancient arts. The Sacred Word refers to the garden of Eden, and to Adam and Noah as workers in the soil. Moses represents gardens as "located by the river side, having cedars by the waters, and the whole land watered by the foot as a garden of herbs." Hebrew writers speak of Assyrian gardens bordering rivers. Diodorus and Strabo describe the hanging gardens of Babylon and Nineveh. Homer sings of the gardens of Alcinoüs adorned with trees and vines, full of flowers and fruits at the same time. The city of Athens received from Academus the gift of a lot of ground for a garden or park to be filled and ornamented with trees and flowers for the good of the public, in the midst of which Plato's academy was finally established. Aristotle taught his disciples philosophy in a garden. Pliny, the younger, describes his Lauritian villa and his Tuscan residence as surrounded by beautiful lands, bordered with rose bushes hedged with box cut into fanciful shapes, and planted with the fig, mulberry, olive, cypress and plane tree. Virgil tells us of horticulture as it was more than two thousand years ago. He describes most of the shade trees known to us. He speaks of the ivy, acanthus, poppy, marigold and violet. He recommends the grouping of plants and trees and adorning gardens with fountains and statuary. Charlemagne, in the eighth century, established gardens and prescribed the plant to be grown in them by royal edict. The English, unlike the Americans, delight in gardening to intermingle the beautiful with the useful. They place in contrast its finished plot and its untrimmed thicket. They aim especially at congruity in grouping and elegance in individual forms. Study their tastes and teach your sons and daughters to study and admire them—to pay difference to beauty of shape

as well as to utility. If your lands are properly laid out and thoroughly and tastefully cultivated, is not their value enhanced so as more than to compensate for the extra labor and expense? Who does not like to see flower beds in front of the vegetable garden, the dwelling, stables and barns, neatly overshadowed and properly arranged? The Canadian farmer should cultivate and develop a fondness for the picturesque, the novel and the antique. In improving your lands this can be fully accomplished and realized. Trees and ledges, grottoes and groves, the wild and tame, furnish the picturesque; various colors of leafage and petal, the mingling of wild and cultivated plants, the straight and curved paths are constantly introducing the new, artificial walls in apparent dilapidation, broken columns or dead trees covered with ivy, are sure reminders of the antique.

Homes thus beautiful, whose inmates are by education and culture qualified to appreciate them, need not fear desertion or emigration. It is the one sure way of developing an unconquerable love of country and ensuring to the farming portion of the community that dignified self-respect and position in society which they should occupy.



CIDER
Presses, Graters, Elevators
BOCNER & BOSCHERT PRESS CO.,
SYRACUSE



THE COMET
NEW EARLY FRUIT
size, ripens, matures & is ready for the market and most beautiful pear known. Sold Wholesale in New York at \$8 per bushel. Send for full description. Address: C. H. LINS, MOORESTOWN, New Jersey

The St. Mary's "Journal" and "Argus" says: The St. Mary's Carriage Manufacturing Company not having sold the whole 100,000 shares of paid full returns from agents have deemed it advisable to postpone the division of profits, amounting to \$100,000, to Wednesday, December 31st, 1881, when the same will positively take place. Shares are \$2.00 each, and can be secured from H. A. L. WHITE, Secretary, St. Mary's, Ont.

W. S. HAWKSHAW, Glenora, P. O., Ont., breeder of Short-Horn cattle and pure bred Shropshire sheep.

JOHN JACKSON, Woodville Farm, Abner, Ont., importer and breeder of Scandinavian sheep, Gold Medal Stock at Ottawa, and 1st prizes at the leading fairs in 1881; also Short Horn and Berkshire stock for sale.

FOR SALE—Twenty colonies of Italian and Hybrid bees, mostly pure Italians, in jars for which I will take \$7.00 a colony, delivered on board cars at Montreal. WELLINGTON SAUNDERS, Montreal, Ont.

VIRGINIA FARMS VERY CHEAP. Climate mild—index low—health perfect. Hotels and Churches convenient. Send stamp for Catalogue. G. D. B. or, Nottoway, G. H. Va. 315

W. J. SMITH, Angus, Ont., breeder of Jersey cattle. Young stock for sale. Also high-class Lymanth Rock and White Leghorn Poultry. Eggs in season \$1.50 per setting of thirteen. 26

ALEXANDER BURN, Maple Lodge Farm, Rockwood, Ont., breeder of Short-Horn cattle. Young stock for sale.

HIGH CLASS

DARK BRAHMAS.

Have succeeded in raising upwards of Fifty Chickens this year from my old Stock of Prize Winners, over fifty per cent of which will make

GRAND EXHIBITION BIRDS,

and will bring no discredit on their noble progenitors who have always

Won Laurels Wherever Exhibited.

As my stock is large, I will sell reasonable quality of stock considerably in order to make room.

REMEMBER

My Birds Have Never Been Beaten,

SQUARE DEALING MY SPECIALTY.

J. W. BARTLETT,

LAMBETH, ONT

Royal Baking

POWDER,

Absolutely Pure.

This Powder never varies. It is a marvel of Purity, Strength and Wholesomeness. More economical than the ordinary kinds, and cannot be sold in competition with the multitude of low test, short weight, alum or phosphate powders. Sold only in cans.

Royal Baking Powder Co., 106 Wall Street, N. Y.



PEAR HEADQUARTERS. FRAGILE & OTHER FRUIT TREES. New and old varieties of BERRIES. **Early Cluster** Blackberry, May King Strawberry, Ontario Grape, and Catalpa Tree JOHN S. COLLINS, Moorestown, N. J.

Now that fall apples are done, there is a perceptible change in the Toronto market. Sales of winter apples in small lots are being made at \$2.25, while shippers are buying for export both in Toronto and in the country around at from \$1.75 to \$2.00 for carload lots of prime apples.

The total number of barrels of apples thus far this season exported from North America to Liverpool to date of October 18th was 69,000, and for one week preceding that date, 18,000, showing a growing confidence in the export trade. Messrs. Green & Whineray write under same date: "We have had a good demand for apples this week, and advancing markets, owing chiefly to the improved condition of the fruit, which has landed sounder and shewn better color, and our buyers have felt more confidence in operating. Up to the last sale of the week the demand continued good, and we think prospects for next week are favorable." It may be interesting to some of our readers to know that apples shipped to the Liverpool market are sold by auction. The sales take place in a large amphitheatre filled with buyers. The apples are divided into twenty barrel lots and one barrel of a lot is emptied out on a table for inspection. The sale is then made on the quality of this same—that is if all are tight. If any are slack, of course, they go for considerably less. There are, perhaps, ten auctioneers, each of whom has his turn for three-quarters of an hour, and the sales continue day after day. From this information it will be evident how important it is to have every barrel of a kind up to its brand, lest one poor barrel should be the unfortunate or exposed as a sample. It will also be evident how useless would be the attempt to conceal poor fruit in the middle of the barrel, and what public disgrace it would bring upon the shipper.

Hallowe'en.

BY A CONTRIBUTOR.

Last Friday night was hallowe'en, but there was none of the time-honored pranks to remind one of the fact. We are gradually growing out of the celebration of such occasions—gradually the links that have bound us to the superstitious past are being snapped asunder; and the veil is fast being drawn over many a harmless fun-making time, enjoyed by our grandfathers and their sires in 'ye good old days'; and a generation or so ahead will look back upon this and other like anniversaries as relics of the dead and nearly-forgotten past.

A few years ago the observance of hallowe'en was general. For days and weeks the boys and lads anticipated its coming, and their less frolicsome and fun-loving fathers dreaded it. Every judicious farmer made it a point to gather his "kail" before the coming of the last night of October, and the careful housewife had the pumpkins, from which she intended to make her winter pies, housed in anticipation of its arrival.

When the family retired the "old folks" went to bed in momentary dread of some outlandish caper, and the boys lay down in their day clothes, ready to sneak out of the house at a given signal from the boys of the neighborhood family. Then the fun began. Timid, superstitious people heard deathly tappings on the window, and listened to ghostly supernatural knockings at the door. The family dog, brought in for fear he might get hurt, gave ominous growls as he was roused from his slumbers in front of the heaving fire of back logs, and perchance uttered a solitary bark in response to the distant howling of some less fortunate cur, seized to distraction by the molestations of a dozen jolly boys out for hallowe'en fun. When morning dawn streaked the east, the farmer arose. As he passed the bed where lay the midnight ramblers, he thanked heaven that his boys, at least, had been all night safe under the parental roof, not stopping to lift the heavy, wet shoes, carefully hidden under the bed, or to notice the well worn full-cloths, whose bottoms bore evidence of considerable forcible wringing by sturdy hands. When he opened the door he was surprised to be met with a shower of nails, whose weight might have almost forced the latch or driven off that primitive burglar preventive, the wooden button. Looking out he could dimly see that his corn crib had changed places with the ash barrel, and that in consequence his wife's prospects for a good batch of soft soap had been ruined. He could discern also that his plow had ascended the beech tree by the gate, and that the gate itself had changed situations with that of neighbor Jones across the way. The barnyard was visited next, and an anxious glance given to see that the barn was left in its place, or whether it, too, had followed the wandering gate and deposited itself on the other side of the road. The glance revealed the presence of the barn—and something else, for the democrat wagon was astride the pitch-roof, and market was spoiled for that day. Then the head of the family was angry; he drew the hay into the manger with a jerk that made Bill and George wonder what was wrong, and after calling the pigs and pouring their corn into the trough, kicked them because they were eager to devour it. He roused the family and mother; and Mary Jane was hustled out of bed to prepare breakfast, while the husband and father replaced the truant gate, a service for which Jones uttered his best thanks from an upstairs bedroom window. At breakfast the man at the head of the table looked mad; the boys looked sleepy; but the mother (mothers always find an excuse for their sons) said: "No wonder; the noises around were sufficient to keep any one awake." And so it went from year to year, and the boys looked forward to the one coming, and the fathers looked back to the one that was past. But this, as we have said, is rapidly passing away. Hallowe'en passes by and the boys scarcely know that it is hallowe'en at all; and those who do know content themselves with repeating the tales of wonderful tricks played on the historic night when grandfather was a boy. There are among us dozens who sigh for an hour's lingering in the days that are gone, with their harmless frolics and primitive pleasures. We long for the shady bush where we gathered the pyramidal beechnuts; for the log house over whose slab floor our first tottling steps were taken; and for the genial countenance of Back and Bright, that pulled the fashionable long sled with its burden of green wood. We sigh for a glance of the old log schoolhouse with its

rude benches and its cracks through which the wind whistled its dreary music—a time in doleful keeping with the stubborn resistance of a knotty vulgar fraction, with which the lads and lasses wrestled a whole half day, and were forced to hold it over for further reference in the morning.

But we must desist; these reveries make me sad. They call me back fifty years and make me think of boyhood and its joys and freedom from difficulties, and thus unfit me to take up the burdens of ripe years, and to face the stubborn realities and discouragements of business.

"How quickly the years of youth are flown; How their vision haunts me as I travel along to the end."

ONE WHO WAS A WELLS CO. BOY FIFTY YEARS AGO.

GRAPPLING HAY FORK AND CONVEYORS
 For Trucks, Rops or Rods for BARRIS or STACKING.
 BEST Combination—Used by Thousands.
 Prices Reduced—Send for Circular.
AGENTS WANTED.
G.B. WEEKS New York.

PATENTS Hand-Book FREE.
 R. S. & A. P. LACEY,
 Patent Attys, Washington, D. C.



LYDIA E. PINKHAM'S VEGETABLE COMPOUND
 IS A POSITIVE CURE

For all of these Painful Complaints and Weaknesses so common to our best FEMALE POPULATION.
 It will cure ENTIRELY the worst form of FEMALE COMPLAINTS, ALL OVARIAN TROUBLES, INFLAMMATION AND ULCERATION, PAINING AND DISPLACEMENTS, AND THE CONSEQUENT SPLEEN WEAKNESS, AND IS PARTICULARLY ADAPT TO THE CHANGE OF LIFE.
 It REMOVES AND EXPELS TUMORS FROM THE UTERUS IN AN EARLY STAGE OF DEVELOPMENT. THE TENDENCY TO CANCER OF THE UTERUS THEREBY CHECKED VERY SPEEDILY BY ITS USE.
 It REMOVES FAINTNESS, FLATULENCE, DESTROYS ALL CRAVING FOR STIMULANTS, AND BRINGS THE WEAKNESS OF THE STOMACH. IT CURES BRUISES, HEADACHE, NERVOUS PROSTRATION, GENERAL DEBILITY, DYSPEPSIA AND INDIGESTION.
 THAT FEELING OF BEARING DOWN, CAUSING PAIN, WHIPIST AND BACKACHE, IS ALWAYS PERMANENTLY CURED BY ITS USE.
 IT WILL AT ALL TIMES AND UNDER ALL CIRCUMSTANCES ACT IN HARMONY WITH THE LAWS THAT GOVERN THE FEMALE SYSTEM.
 ITS PURPOSE IS SOLELY FOR THE IMMEDIATE HEALING OF DISEASE AND THE RELIEF OF PAIN, AND THAT IT DOES ALL IT CLAIMS TO DO, THOUSANDS OF LADIES CAN GLADLY TESTIFY.
 FOR THE CURE OF KIDNEY COMPLAINTS IN EITHER SEX THIS REMEDY IS UNSURPASSED.
 LYDIA E. PINKHAM'S VEGETABLE COMPOUND is prepared at Lynn, Mass. Price 41. Six bottles for \$2. Sold by all druggists. Sent by mail, postage paid, in form of Pills or Lozenges on receipt of price as above. Mrs. Pinkham's "Guide to Health" will be mailed free to any lady sending stamp. Letters confidentially answered. No family should be without LYDIA E. PINKHAM'S LIVER PILLS. They cure Constipation, Biliousness and Torpidity of the Liver. 25 cents per box.

THE LINE SELECTED BY THE U. S. GOV'T TO CARRY THE FAST MAIL

Burlington Route.
 CHICAGO BURLINGTON & QUINCY

GOING WEST.
 ONLY LINE RUNNING TWO THROUGH TRAINS DAILY FROM CHICAGO, PEORIA & ST. LOUIS.

Through the Heart of the Continent by way of Pacific Junction or Omaha to DENVER, or via Kansas City and Atchison to Denver, connecting in Union Depot at Kansas City, Atchison, Omaha and Denver with through trains for SAN FRANCISCO, and all points in the Far West. Shortest Line to KANSAS CITY, and all points in the South-West. TOURISTS AND HEALTH-SEEKERS should not forget the fact that Round Trip tickets at reduced rates can be purchased via this Great Through Line, to all the finest and most beautiful resorts of the West and South West, including the mountains of COLORADO, the Valley of the Yosemite, the

CITY OF MEXICO, and all points in the Mexican Republic. HOME-SEEKERS Should also remember that this line leads direct to the heart of the Government and Railroad Lands in Nebraska, Kansas, Texas, Colorado and Washington Territory. It is known as the great THROUGH CAR LINE of America, and is universally admitted to be the finest equipped Railroad in the World for all classes of Travel. Through tickets via this line for sale at all Railroad Ticket Offices in the United States and Canada. T. J. POTTER, Vice Pres. and Gen. Manager. PERCIVAL LOWELL, Gen. Pass. Agt. Chicago. JNO. Q. A. HAN, Gen. Eastern Agt., 317 Broadway, New York, and 205 Washington St., Boston.

Sawing Made Easy.
 MONARCH LIGHTNING SAWING MACHINE
 SENT ON 30 DAYS TEST TRIAL.

For logging camps, wood-yards, farmers getting out stove wood, and all sorts of log-cutting—it is unequalled. Thousands sold yearly. A boy of 10 can saw logs 12 in. and 18 in. diameter, or sawing of lumber and more. Write for elegantly illustrated catalogue in 6 brilliant colors, also brilliantly illuminated poster in 6 colors. All those Agents Wanted. See money made quickly. MONARCH MFG CO., (L) 205 State St., Chicago, Ill.

NORMAN'S ELECTRIC BELTS.
 (ESTABLISHED 1874.)
 4 Queen Street East, Toronto.

Nervous debility, rheumatism, neuralgia, indigestion, lame back, liver, kidney and lung disease, and all diseases of the nervous and vascular circulation, are immediately relieved and permanently cured by using these appliances. Circulars and consultation free.

OTTAWA, Sept. 3, 1893.
 A. NORMAN, Esq.: Dear Sir,—I have experienced considerable benefit from your Appliances. I feel stronger and better every day.
 Yours truly, K. K. HALLIBROOK, PATRIBROUUGH Oct. 15, 1893

A. NORMAN, Esq.: Dear Sir,—Soon after I commenced to use your Electric Appliances they opened my bowels, cured my cough and cold, relieved my head, and considerably relieved my catarrh in consequence. The discharge from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach is less sour and windy, and I am less troubled with leucorrhoea and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good.

THOMAS GUY, breeder of Yorkshire Cattle, Leicester and Southdown Sheep and Berkshire Pigs, bylenham Farm, Ottawa, Ont.

FOR SALE, choice, pure bred Black Spanish also pure bred Plymouth Rock eggs in season. M. BROPHY Bradford, Ont.

W. M. ROLPH, Glen Rongah Farm, Markham, Ont., Importer and Breeder of Jersey Cattle. (Mutter qualities a specialty. All registers in A. J. C. G.)

\$10.00 A Pair for Bronze and Narragansett Turkeys. Hockortown Brand. Bred 11 years for size and beauty. Note for T. Bunker's Secret of Turkey Raising. W. CLIFT, Haddlyme, Ct.

FOR SALE - Fluffy fine Poland China Dicks. Pedigree furnished with each sale. Prices reasonable. Our 30 page illustrated hand book of P. C. same sent on application. - P. L. THOMAS, Rushville, Ind. U. S. A.

HENRY COMSTOCK, of Liberty Mills Ind., breeder of choice strains of the improved Short-horn and Poland China warts farmers to send for his circular and price list of stock, a hard pan price.

WALKER HOUSE, Corner York and Front Streets Toronto. This Favorite Hotel overlooks Toronto Bay. It has 125 spacious and well ventilated R-1 rooms. Convenient Sample Rooms and Passenger Elevator. Free Omnibus to and from all Trains and Hotels. Terms, \$1.50 and \$2 per day, according to location.

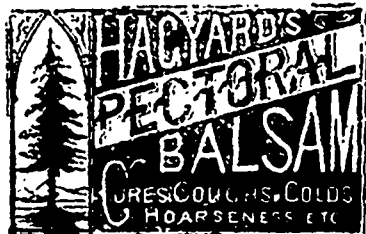
AMERICAN HOTEL, Corner of Yonge and Front Streets, Toronto. Convenient to Depots and Wharves. Charges moderate.

LORD, COOK & SON, AULTVILLE ONT. Importers and Breeders of THOROUGHBRED HOLSTEIN CATTLE.

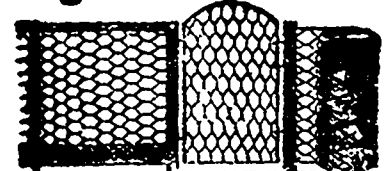
Here consists of 50 animals, having "Lord Byron" at the head. All selections made in Holland by Mr. Lord personally. Animals all registered in Holstein Herd Book. Cows, Bulls and Calves for sale. Will for particulars visit us welcome.

POLAND CHINA SWINE THOROUGHBRED.

I HAVE the only herd of registered Poland in Canada. First prize at Montreal \$4,000 for 15. Also Plymouth Rock eggs \$1.50 for 15. LEVI B. WHITMAN, Lake View Farm, Keweenaw, N.Y.



Sedgwick Steel Wire Fence



In the only general purpose Wire Fence in use, being a Strong Net-work without knots. It will turn dogs, cats, sheep, and poultry, as well as the most vicious of oxen, without injury to either fence or stock. It is the best for farms, gardens, stock pens, and rail-roads, and very neat for lawns, parks, school lots and cemeteries. Covered with rust-proof paint for galvanized it will last a life-time. It is superior to Boards or Barbed Wire in every respect. We ask for it a fair trial, knowing it will wear itself into favor. The Sedgwick Fence, made of stoutest iron pipe and steel wire, defy all competitors in neatness, strength and durability. We also make the best and cheapest All Iron Automatic or Self-Opening Gate, also Cheapest and Neatest All Iron Fence. Send Wire Fence Circular and Post Notice. Also send for the new circular showing the excellent Wind Engines for pumping water, or geared engines for grinding, and other light work. For prices and particulars, a hardware dealer, or address, mentioning name - SEDGWICK FENCE CO., 207 Ave. B, Richmond, Ont.

CHAMPION STUMP AND STONE LIFTER The Strongest, Lightest, Cheapest and Best. Will do the work of 3 men and 4 horses. For price etc., Address S. S. KIMBALL, 577 CRAIG STREET, MONTREAL

THE BEST HOMES

For 20 million people now await occupancy in MINNESOTA, DAKOTA, MONTANA, WASHINGTON AND OREGON, IN THE NORTHERN PACIFIC COUNTRY.



20 MILLION ACRES of the best Wild, Farming, Grazing and Timber lands for sale by the Northern Pacific Railroad at prices ranging from \$1.00 to \$10.00 per acre, and if desired less. An equal amount of Government lands (rich agricultural, gold, silver and other mineral and forest lands), are open for settlement under the Homestead, Pre-emption and Tree Culture Laws. THESE LANDS reach to miles on each side of the Northern Pacific Railroad, and Government lands are being rapidly taken up. Come and select a good farm, profitable farm in this the best money making country in America! THE HEALTHY CLIMATE, fertile soil, sure crops every year, abundant fuel and water, and great demand for labor at good wages, offer great inducements to settlers. Dakota Spring Wheat, "No 1 Hard," brings 10 to 15 cents more per bushel than any other kind of wheat. FREE! For maps and publications, sent free of charge, and for all information relating to P. N. GREAT, send to - CHAS. H. LAMBORN, Land Commissioner, St. Paul, Minn. Don't Emigr. Agent, St. Paul, Minn.

T. S. HUBBARD, FREDONIA, N. Y. HEADQUARTERS. Authorized General Agent.

THE NIAGARA WHITE GRAPE

Now offered for sale to the public without restrictions for the first time. 2 year Vines, \$2.00 each. Liberal commission to dealers and the trade. Agents wanted. Quaint Free. All Vine cut out under seal of Niagara White Grape Co. None Genuine Without. Also a large general stock of PRELIMINARY and other GRAPE VINES, STRAWBERRIES, &c. Address as above.

GRAPE VINES

HEADQUARTERS for 25 to 30 Vines, one each without restrictions in plants for first time. 2 year Vines, \$2.00 each. Liberal commission to dealers and the trade. Agents wanted. Quaint Free. All Vine cut out under seal of Niagara White Grape Co. None Genuine Without. Also a large general stock of PRELIMINARY and other GRAPE VINES, STRAWBERRIES, &c. Address as above.

THE GOLDEN BELT

ALONG THE KANSAS LANDS Kansas Division, U. P. R'way STOCK RAISING WOOL GROWING. Buffalo Grass Pasture, Summer and Winter Unsurpassed for Climate, Grasses, Water. CORN and WHEAT FRUIT 2,000,000 bush. corn \$3,000,000 wheat. The best in the Eastern market. Pamphlets and Maps Free B McALLISTER, Land Commisr, Kansas City, Mo.

GRAY NO MORE HAIR.

Brucellon, the Great Hair Restorer and Renewer, changes GRAY HAIR to its natural color gradually and permanently. Not a dye. A marvellous invention. Gray-haired persons, old men and women, want to look young in two weeks. No more gray hair! Also grows hair rapidly and luxuriantly. Send for descriptive book, and testimonials and opinions of eminent chemists and doctors. Address WEST 4th St. 7 Murray Street, New York

\$25.00 GIVEN AWAY.

To every reader of the CANADIAN FARMER who will send us the full name and Post Office address, and eight 2-cent stamps for postage, we will send FREE

The American Housekeeper,

a large 102 paged book; nicely bound. Contains over 1,200 Valuable Household Recipes, and a host of valuable information worth its weight in gold to any family. Sent postpaid, for 8 2-cent stamps. \$25.00 in Cash will be given away to the 25th person who answers his advertisement, and mentions the CANADIAN FARMER. Send to-day. Address A. B. CLARK & SON, Port Morris, N. J.

GRANGE SUPPLIES

For Sale at this Office. Applications for Membership, per 100..... \$0 50 Blank Duplicates, per 100..... 50 Membership or Trade Cards, per 100..... 50 Bonds for Secretary and Treasurer, each... 02 Receipts, bound (100 in a book)..... 70 Orders on Treasurer, (100 in a book)..... 70 Letter heads, full size, per 100, (Grange or business card printed on)..... 00 Letter heads, note size, per 100, (Grange or business card printed on)..... 70 Envelopes, per 100, (Grange or other business printed on)..... 55 (No orders will be received for letter heads, note heads, and envelopes for less than 100.) Blank Quarterly Reports for Subordinate Granges furnished to Div. Granges at the rate of, per 100..... 1 00 Blank Deeds (in duplicate), special blank for use of Granges acquiring property..... 20

INTERCOLONIAL RAILWAY.

The Direct Route from the West for all Points in NEW BRUNSWICK, Nova Scotia, Cape Breton, and Newfoundland.

All the popular SEA-BATHING, FISHING, and PLEASURE RESORTS of Canada

ARE - ALONG - THIS - LINE.

Pullman Cars leaving Montreal on Monday Wednesday and Friday run through to Halifax and on Tues. and Thurs. and Saturdays to St. John's, N.B., without change

Close Connections made at Point Levis or Chaudiere Junction with the Grand Trunk Railway, and at Port Levis, with the Richelieu and Ontario Navigation Company's Steamers from Montreal.

ELEGANT FIRST-CLASS PULLMAN, AND SMOKING CARS ON ALL THROUGH TRAINS.

First-Class Refreshment Rooms at Convenient Distances.

IMPORTERS AND EXPORTERS

Will find it advantageous to use this route, as it is the quickest in point of time and the rates are as low as by any other. Through freight is forwarded by fast special trains, and experience has proved the Intercolonial route to be the quickest for European freight to and from all points in Canada and the Western States. Tickets may be obtained and also information about the route and about freight and passenger rates from ROBERT B. MONDIE, Western Freight and Passenger Agent, 21 Rossin House Block York St., Toronto.

A CARD TO THE PUBLIC - The prevalence of Diphtheria in Canada at present is a just cause for you to feel uneasy about your children. Have you my medicine at your home? It may be too late when you call in your physician. What do the physicians say about my medicine. They who have seen its effects recommend it highly, and have openly expressed the opinion, that if this medicine be applied, in the first stages of Diphtheria, there would be very few fatal cases of it. In cases of Membranous Sore Throat, Canker Mouth, and Catarrh, it has never failed; and as to Catarrh, I challenge any other medicine in America to compete with it, either as to the quickness or to the permanency of the cure. Those people who are afflicted with Catarrh can receive satisfying proofs of the curative power of my medicine by referring to those persons whose testimonials have been published from time to time. Yours truly, MADAME SANGSTER, 150 Wellington St. North, Hamilton. Sold by Harrison Bros., Hamilton.

FIRST CLASS DELAWARE FARM for sale 1 1/2 miles from town of Farmington, on Delaware R. R., 90 acres, high state of cultivation, 75 bushels corn, 20 bushels wheat per acre 25 acres in timothy and clover, 22 acres in grain, 70 peach trees, apples, pears, cherries and grapes, two story dwelling, modern finish, out buildings, three tenant houses; healthy location; school and church convenient. Will be sold bargain, less than cost of buildings. Ad. A. AMOS COLE, Harrison, Delaware.

APPLES! APPLES!

CHARLES DONALD & CO., 78 Queen Street, London, E. C. England.

Will be glad to correspond with Apple Growers, Merchants and Shippers, with a view to Autumn and Spring business. They will also give the usual facilities to customers requiring advances.

\$1000 FOR VEGETABLES
OFFER TO MY CUSTOMERS
A THOUSAND DOLLARS
For the LARGEST CROPS
 of VEGETABLES and GRAINS. My Catalogue (sent free) will give all the details.
 James J. M. Gregory, Marlborough, Mass.

I THANK BRAHMAS—I this season offer eggs for hatching as follows: Yard No. 1, headed by a grand cockerel much above the standard weight and three grand hens that have already produced many prize winners; eggs, \$1.50 per 15. Yard No. 2, headed by a cock from the yards of the justly celebrated Philander Williams, of Taunton, Mass., and four grand pullets three of which have won first prizes; the other second a pair, \$2.00 per 15. NOTICE—My hirer have won first prize this season whenever shown. J. W. BARTLETT, Lambton (late London South), Ont.

DEREDICK'S HAY PRESSES.



Manufactory at 90 Colgate Street, Montreal, P. Q.
 Address for circular P. K. DEDERICK & CO., Albany, N. Y.

THE is not Pains or Coughs, or
 OOLDEST with COUGH, or
 COUGHS, or
WATER is the
 T. W. LAWRENCE, Gen'l Agent,
 202 E. Ontario St., Baltimore, Md.

PEAR HEADQUARTERS
NEW BERRIES MAY KING
EARLY CLUSTER
NEW GRAPES
 J. & COLLINS, Rochester, N. Y.

DO YOU KEEP
 Hens, Turkeys, Ducks, Geese, Pigeons, Canaries
 Rabbits, Dogs, Cattle, Sheep, any sort of
 domestic PET STOCK?
THEN YOU WANT

"THE POULTRY BULLETIN"

The oldest Poultry Journal in America.
 The Best Poultry Magazine in the World.

Devoted to the care and management of Poultry, Pigeons, Birds, Rabbits, and Pet Stock of all kinds.

Reliable! Instructive!! Entertaining!!!
 Original, Independent, Progressive. The latest the freshest, the most entertaining topics are discussed by the foremost writers among American fanciers. New attractions are constantly appearing.

If you take any paper of the sort you want the BULLETIN. If you keep poultry or pet stock of any kind, you want the BULLETIN. It costs but little.

\$1.25 Per Year, Post-Paid.
 Remit by Post Office order or registered letter and address
POULTRY BULLETIN
 24 Courtland street N. Y. City.

KNABE

PIANO-FORTES.
 UNQUALLED IN
Tone, Touch, Workmanship & Durability.
WILLIAM KNABE & CO.
 Nos. 24 and 26 West Baltimore Street, Baltimore.
 No. 112 1/2 7th Avenue, New York.

CURE FITS!

When I was a child I was seized by fits, and I have since had many attacks. I have tried every remedy, but I have never been cured. I have since had many attacks. I have tried every remedy, but I have never been cured. I have since had many attacks. I have tried every remedy, but I have never been cured.

PATENTS

MUNN & CO., of the SCIENTIFIC AMERICAN, continue to act as Solicitors for Patents, Caveats, Trade Marks, Copyrights, for the United States, Canada, England, France, Germany, etc. Hand Book about Patents sent free. Thirty-seven years' experience. Patents obtained through MUNN & CO. are noticed in the SCIENTIFIC AMERICAN, the largest, best, and most widely circulated scientific paper, \$3.00 a year. Weekly. Splendid engravings and interesting information. Specimen copy of the Scientific American sent free. Address MUNN & CO., SCIENTIFIC AMERICAN Office, 41 Broadway, New York.



GUN REPAIRING!
CHOKE BORING.

We have now in our repairing department every modern convenience, together with a staff of the most skilled mechanics, capable of doing all kinds of repairs. We have special facilities for re-socketing, choke boring, re-jointing and tightening B. L. guns, and stock boring. Pin fire Fire guns of good quality can be converted to center fire. Special care is taken with nameless and other high grade guns, and every piece of work, no matter how trivial, is carefully inspected before leaving the shop. For choke boring—one barrel, \$1.50; two barrels, \$2.50.

CHARLES STARK,
 57 Church street, 4 doors north of King

Importer, Wholesale and Retail Dealer in every description of Fire Arms, a good and reliable Watch, gold and silver Jewelry, and all the latest and most elegant designs.

A MAN



CHICAGO, ROCK ISLAND & PACIFIC RY
 by the central position of its line, connects the East and the West by the shortest route, and carries passengers, without change of cars, between Chicago and Kansas City, Council Bluffs, Leavenworth, Atchison, Minneapolis and St. Paul. It connects in Union Depots with all the principal lines of road between the Atlantic and the Pacific oceans. Its equipment is unrivaled and magnificent, being composed of most comfortable and beautiful Day Coaches, Magnificent Horton's Reclining Chair Cars, Pullman's Practical Palace Sleeping Cars, and the best Line of Dining Cars in the World. Three Trains between Chicago and Missouri River Points. Two Trains between Chicago and Minneapolis and St. Paul, via the Famous "ALBERT LEA ROUTE."

A New and Direct Line, via Seneca and Kankakee, has recently been opened between Richmond, Norfolk, New York, Chicago, St. Louis, St. Paul, St. Petersburg, Nashville, Louisville, Lexington, Cincinnati, Indianapolis and Laysville, and Omaha, Minneapolis and St. Paul and intermediate points.

Tickets for sale at all principal Ticket Offices in the United States and Canada.
 Baggage checked through and rates of fare always as low as competitors that offer less advantages.
 For detailed information, get the Maps and Folders of the
GREAT ROCK ISLAND ROUTE
 At your nearest Ticket Office, or address
R. R. CABLE, E. ST. JOHN,
 Pres. & Gen'l Mgr., Gen'l Tkt. & Pass. Agt.,
CHICAGO.

The Most Extensive Pure Bred Live Stock Establishment in the World.



Clydesdale Horses, Percheron-Norman Horses, English Draft Horses, Trotting-Bred Roadsters, Imported French Coachers, Cleveland Bays and Shetland Ponies, Holstein and Devon Cattle.

No further evidence is needed of the UNUSUAL GAINS with which our stock has been selected than the fact that the HUNDREDS of animals imported and sold by us during a career of ten years, every one, we believe, including all kinds and all breeds, is now alive, and doing well, with the exceptions of only five. We feel safe in saying that no other establishment in America can approach such a showing of the length of time and the large number of animals.

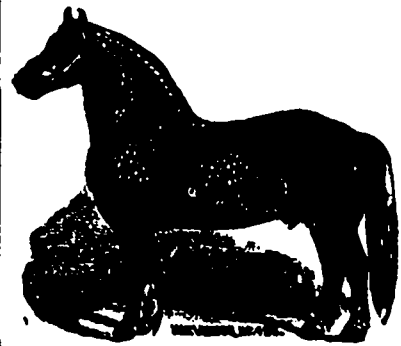
No careful and judicious person will fail to well consider this important fact, in making his purchases. We invite critical inspection of our stock and careful comparison with that of any other establishment.
PRICES LOW! TERMS EASY! Visitors Welcome. Correspondence Solicited. Circulars Free.

POWELL BROTHERS,
 Springboro, Crawford Co., Pa.

EVAPORATING FRUIT

Full treatment on improved methods, yields, profits, uses and general sanitation. Free. **AMERICAN FRUIT CO.**
 FRANKLIN COUNTY, PA.

LEVI DILLON AND SONS. LEVI DILLON AND SONS.



NOP MAN HORSES!
 (Formerly of firm of E. Dillon & Co.)
NEW IMPORTATION

Arrived in fine condition June 15, 1884.
 Have now a large collection of

CHOICE ANIMALS

STABLES AND HEADQUARTERS LOCATED AT NORMAL,

Opposite the Illinois Central and Chicago and Alton Depots. Street cars run from the Lake Erie & Western, and Indianapolis, Bloomington and Western Depots, in Bloomington, direct to our stables in Normal. Address:

DILLON BROS., NORMAL, ILL.

FOR BEE-KEEPERS!

We have made arrangements by which we are enabled to offer

THE BEE-KEEPERS' GUIDE

—BY—
Professor A. G. Cook.

A volume of NEARLY FOUR HUNDRED PAGES, for \$1.25. It is the best work upon bee-keeping now before the public. Any bee-keeper desiring the above work can secure the same by enclosing \$1.25 to the

Canadian Farmer, Drawer A., WELLAND.

And on receipt of same the book will be sent AT ONCE. Any one sending us

A Club of Five New Subscribers!

Accompanied by Five Dollars. Will receive the Book FREE by year.

Canadian Stock Raiser's Journal
 From now to end of 1885 for \$100—the year by subscription price—thus virtually to the end of 1884 free. FARMERS, before deciding what agricultural paper you will take next year, send for a free copy. **ACTIVE AGENTS** in **ONTARIO** nearly everywhere, good commission. Samples, etc., free. Address **STOCK JOURNAL Co.** Hamilton Ont.

AMBER SUGAR CANE MACHINERY.
 New Paragon School Decks
W. BEATTY & CO., WELLAND, N. Y.
 Early Amber Cane Seed imported from the States. Pure & reliable. Send for catalogue and prices.

THE CANADIAN FARMER
 PUBLISHED WEEKLY
 BY **E. CHAPMAN & CO.** BOSTON, U.S.A.

INTELLIGENT FARMERS

Who have acted on our advertisement appearing weekly in this paper for the last three years and used our

CYPSUM, OR Pure LAND PLASTER

Will all bear us out in saying it is by far

The Best and Cheapest Fertilizer in the World

On any class of land and especially when used with manure and on manure heaps, and that our Gypsum, prepared and purified by a patent process, not used elsewhere in Canada, is uniformly the best in the country, being 30 per cent. better than the impure Grey variety.

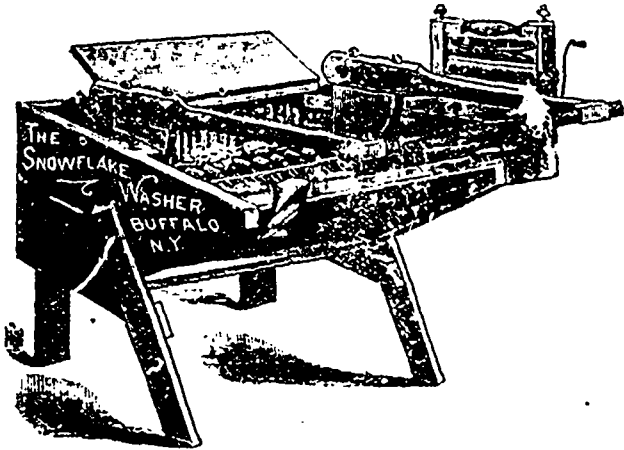
THE TESTIMONIAL

To W. H. MERRITT: We as members of Darlington Union Grange take pleasure in recommending to the farmers of Ontario your Plaster as a fertilizer, as we used a quantity last year to our satisfaction. J. B. TRULL, Mayor; MARK MUNDAY, Sec. I. VANUAMP, Overdoor; T. VANUAMP; W. FOLKY.

White and Grey Land Plaster in Bulk, Barrels and Bags by Car lots of 12 tons. Place your orders early while we have a large stock in our Warehouses.

Address,

W. HAMILTON MERRITT
Office: Grand River Plaster Company,
15 Toronto St., TORONTO, ONT.



The Improved Snowflake Washing Machine is an improvement on all the best makes of Washers, and has given satisfaction wherever tried. Its simplicity of construction, strength, durability and labor saving qualities make it desirable in every household. It will wash with equal facility the most delicate fabric or heavy manufactured blanket, and will clean clothes from all dirt in less time than any other washer yet offered. Testimonials from persons using the machine can be had on application. Efficient and reliable as it is wanted in every county in Canada.

Apply to H. N. HUBBARD,
General Agent, Ridgeway, Ont.

These Three Little Friends are going Travelling, and they want to visit all the Good Little Boys and Girls in America. Want you Let us Come to Your Home? We will start as soon as you send us 15 Cents to pay our way. Our Elegant Wardrobe consists of 32 Pieces. Our Garments are of Every Fashion and Style. If you send for us we will go where you live, and amuse you all the year. Ask Mamma and Papa to send for us, and we will wear our Reception Dresses.

Only 15 Cts for 3 French Dolls

WITH AN ELEGANT WARDROBE OF 32 PIECES.



CHRISTMAS COMICS.

Consisting of Reception, Evening and Morning Dresses, Bonnets, Street Costumes, Cloaks, Hats, Handkerchiefs, Sun Umbrellas, Washes, Perfumes, Overcoats, Sailor Suits, Military Suits, Uniforms, Street Jacket, Watertight Pina Suits, Travelling Costumes, Dress Suits, etc. These Dresses and Suits in this elegant Wardrobe represent 32 different colors, and they are lovely beyond description, several being from Dresden by Worth of Paris. There is one little boy and two girl dolls in each set, with pretty faces and life-like beautiful features, and their Wardrobe is so extensive that it takes hours to dress and undress them in their different suits. Every child and every boy or girl that has seen them go in costume over their French Dolls will get the greatest enjoyment out of a set of these French Dolls than out of articles that cost \$10. Every person that buys them sends immediately for more. A lady writes that her little boy and girl played for five long hours with a set of these French Dolls, and they felt very sorry indeed to think that they must stop and eat their supper, and if mothers only knew how much amusement there is in these Dolls they would willingly pay double the price asked for them. Sample Set, consisting of Three Dolls and their Wardrobe of 32 Pieces by mail for 15 Cts. Two Sets, Six Dolls and 64 Pieces for 25 Cts. Ten Sets for \$1 you get 100 Sets for \$100 you get 327 for them. Five Sets for \$10, you get 100 Sets by express \$100 you get 1000. Any Little Boy or Girl or man, Agent, male or female, can call 100 Sets every day. If you do that you make over \$100 a week. If you send for one two we will send our Secret Method and Full Directions how you can make more than one Hundred Dollars a month out of these Dolls. You have not one day to lose, each day is a day in so many dollars lost to you. This is an opportunity too valuable for you to lose. These Dolls are Gems of Beauty. ADDRESS 1, YORK, 173 GREENWICH STREET NEW YORK.

FAY CURRANT HEAD-QUARTERS. CRAPES

BEST STOCK IN THE WORLD
SMALL FRUITS AND TREES. LOW TO DEALERS AND PLANTERS. EVERYTHING FIRST-CLASS. FIRE CATALOGUES. GEO. R. JOSELYN, FREDONIA, N. Y.



GOLD FILLED CASES!

SIZE OF CASE, IN A VARIETY OF ELEGANT DESIGNS.

We have the best gold-filled cases in a variety of elegant designs. The merits of the filled cases have been known and appreciated in the U. S. the most ten years and they are the most popular in the market, as including all the advantages of an appearance of elegance, durability and solidity of a solid gold case. In Canada they are not known, not for want of advertisement or ability to appreciate them. The fact in consequence of the great and ever-increasing use of these gold-filled cases, we have had to send our agents to the United States to purchase them from 1 to 2 1/2 per cent. advance on the ordinary selling price. Intending purchasers can actually save 10 per cent. of these facts by comparing authorized prices:
No. 855 - Filled gold case, genuine American stem-wind movement, jewelled, cut expansion balance, \$18.00.
No. 875 - Same as No. 855, but key-wind, \$15.00.

50 PER CENT. REDUCTION

on Waltham and other American Watches on old catalogue prices. On receipt of price we will send per mail, postpaid, a Three-ounce Gold Coin Silver American Key-wind Watch, Jewel expansion balance, for \$10.00. This same grade American stem-wind in Solid Gold Silver just now for \$15.00.
Send address for our 100-page Catalogue (now in press) containing over 100 illustrations of all the latest and most elegant designs of Gold and Silver Watches, Diamonds, Jewelry, Silverware, etc.

CHARLES STARK,
52 Church St., Toronto.

DR. FOWLER'S

EXTRACT OF WILD

STRAWBERRY

CURES

CHOLERA

CHOLERA INFANTUM

DIARRHOEA

AND

ALL SUMMER COMPLAINTS

SOLD BY ALL DEALERS.

OAKLAND JERSEY STOCK FARM.

Young Bulls sired in the American Jersey Cattle Club Herd Register, for sale at from \$100.00 upwards.
The Herd Embraces 100 ANIMALS,
With cows having well authenticated tests of from 11 lbs. to 27 lbs. 9/16 of butter in 7 days; also Mary Anne of St. Lambert, who in 1887 made 7 1/2 lbs. of butter in 11 months and 4 days. The public are invited to inspect the stock. Farm, one quarter of a mile from Waterdown station, G. T. R. Co. Address, VALANCEY E. & M. H. FULLER, Hamilton P. O.

GAIN Health and Happiness.

How? DO AS OTHERS HAVE DONE.
Are your Kidneys disordered?
"Kidney Wort brought me from nervous weakness, after I was not expected to live." Mrs. H. M. H. Goodwin, St. Christian, Ontario, Canada, U.
M. W. Foveaux, Mechanic, Ionia, Mich.
Are your nerves weak?
"Kidney Wort cured me from nervous weakness, after I was not expected to live." Mrs. H. M. H. Goodwin, St. Christian, Ontario, Canada, U.
Have you Bright's Disease?
"Kidney Wort cured me when my water was just like chalk and then like blood."
Frank Wilson, Peabody, Mass.
Suffering from Diabetes?
"Kidney Wort is the most successful remedy I have ever used. Gives almost immediate relief."
Dr. Phillip C. Ballou, Montpelier, Vt.
Have you Liver Complaint?
"Kidney Wort cured me of chronic Liver Disease after I was not expected to live."
Henry Ward, late Col. 6th Nat. Guard, N. Y.
Is your Back lame and aching?
"Kidney Wort, (1 bottle) cured me when I was so lame I had to roll out of bed."
O. M. Tallmage, Milwaukee, Wis.
Have you Kidney Disease?
"Kidney Wort made me sound in liver and kidneys after years of unsuccessful doctoring. Its worth \$10 a box."
Sam'l Hodges, Williamstown, West Va.
Are you Constipated?
"Kidney Wort causes easy evacuations and cured me after 15 years use of other medicines."
Nelson Fairchild, St. Albans, Vt.
Have you Malaria?
"Kidney Wort has done better than any other remedy I have ever used in my life."
Dr. J. K. Clark, South Hero, Vt.
Are you Bilious?
"Kidney Wort has done me more good than any other remedy I have ever taken."
Mrs. J. T. Gallorey, Elk Flat, Oregon.
Are you tormented with Piles?
"Kidney Wort permanently cured me of bleeding piles. Dr. W. C. W. who recommended it to me."
Geo. H. Horst, Cashier at Bank, Myerstown, Pa.
Are you Rheumatism racked?
"Kidney Wort cured me after I was given up to die by physicians and I had suffered thirty years."
Elbridge Malcolm, West Bath, Maine.
Ladies, are you suffering?
"Kidney Wort cured me of peculiar troubles of several years standing. Many friends use and praise it."
Mrs. H. F. Lamoureux, Isle La Motte, Vt.

If you would Banish Disease and gain Health, Take

KIDNEY WORT

THE BLOOD CLEANSER.

HAGYARD'S YELLOW OIL

CURES RHEUMATISM

FRENCH'S WORM-POWDER

For the cure of Worms in Children of a Day.

GOLDEN CREAM, LA CREME D'OR,

The best preparation known to science for beautifying the COMPLEXION

ONE SINGLE APPLICATION is warranted to beautify the Face and give to the Face a Soft, Shallow Complexion a Perfectly Healthy, Natural and Youthful Appearance. It removes Wrinkles, Pockles, Greasy Feet, and the Evidence of Age, leaving the Skin Soft, Smooth, and White.

PRICE - 50 cents. Sent to any address. Postage stamps taken. Address all orders to CREME D'OR, Division 2, 678, Toronto, P. O.

Ask your druggist for the wholesale by all wholesale druggists.

A STARTLING OFFER

To Subscribers to the Farmer.

We offer to give free to every person who will send us between now and January 1886, one dollar for a year's subscription to the

Canadian Farmer,

A copy of the work known as Ogilvie's Handy Book, the price of which is 50 cents.

A new and most valuable work; one that should be in every household. It is a whole library in itself. The most practically useful work out, for the farm and household.

The following is the Table of Contents. This we, the **CANADIAN FARMER**, Guarantee to be Correct.

TABLE OF CONTENTS.

American Geographical Names, with their Derivation and Signification Abbreviations in Common Use and their Signification Alphabet, Dactyl and Dumb. Area, Population, and Debts of Principal Countries of the World. Animals, Powers of Locomotion of. Alcohol, Percentage of in Various Liquors. Animals, Duration of Life of. Biographical Register. Business Vocabulary. Board and Timber Measure. Brass, Weight of. Brokers' Technicalities. Capitals, the U. C. of. Cities of Foreign Nations. Cisterns and Reservoirs. Circles, Diameter, Circumference, Area, Copper, Weight of. Distances to Various Parts of the World. Wood Warmth and Strength Derived from. Food, Percentage of Nutrient in it in Grains, Vegetables, and Fruits, Comparative Yield of. Gold's Legal. Information for Business Men. Interest Tables. Inc. Cost, Tables of. Iron Bar, Tables of. Iron Sheet, Tables of. Iron Plate, Tables of. Lard, Lead to Broad Measure. Lead Pipe Sizes and Weights. Length, Scrip, Measure of. Moulders' Table.	Medical Department. Mythological Dictionary. Musical Terms, Dictionary of. Mountains, Highest in the World. Money, Roman. Monuments, Towers and Structures, Height of. Measures, Scripture, Capacity of. Names Popularly Given to Cities, etc. Nautical Vocabulary. Ocean, Area of. Punctuation, Marks and Rules of. Parliamentary Rules and Usages. Paper, Sizes of, etc. Population of the Countries. Plank and Board Measure. Proof Correcting, Rules of. Rivers, Lengths of. Ready Reckoner for all Calculation. Spelling, Simple Rules for. Seas of the World. Saws, Thread. Steel, Tables of. Substances, Various, Expansion, Heat, and Conducting Power of. Snow, Perpetual Limit of. Tables of Weights and Measures. Time, Divisions of. Timber and Board Measure. Titles in Use in the United States. Useful Items for Daily Remembrance. Wood and Bark Measurement. Wood and Bark, Value of. Weights and Measures, Metric System of. Weights and Measures, Tables of. Wool, Comparative Weight of.
--	---

The book is worth in any house twice the amount asked for it and the FARMER for a year
IT CONTAINS 128 PAGES.

Address the **CANADIAN FARMER**, and enclose one dollar to get the "HANDY BOOK" and the FARMER for a year.

Portable

Saw Mills, Grist Mills and Heavy Saw Mill Machinery.

Gang Edgers, 2 to 7 Movable saws
 Gang Trimmers, 2 to 6 saws.
 Gang Slab Sashors.

SHINGLE MACHINES.

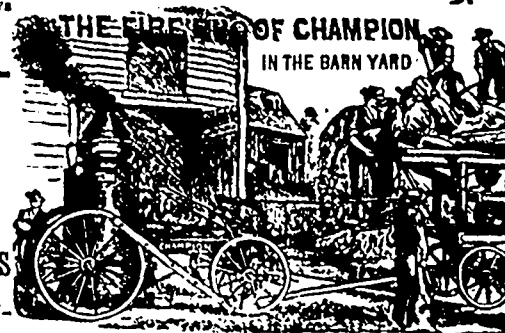
Gang Lash Mills
 1 to 6 Saws

DRAG SAW,
 SHINGLE BLOCK SAW,
 SAPPER and SPLITTER,
 JOINTERS, SAW and KNIFE,

ENDLESS CHAIN LOG JACKS

Ewart Chain for Saw-dust,

Slat and Offal Conveyors, Lumber and Log Transfers, Gandy Belting.



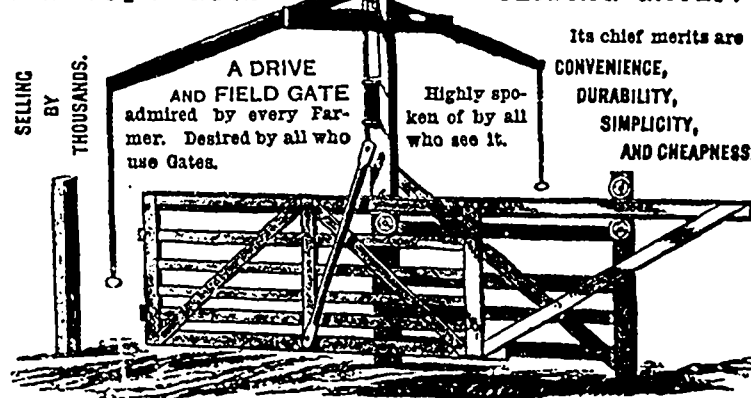
WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA.

Send for Illustrated Catalogue

Mention This Paper.

WHITE'S IMPROVED

SLIDING GATE.



SELLING BY THOUSANDS.

A DRIVE AND FIELD GATE admired by every Farmer. Desired by all who use Gates.

Highly spoken of by all who see it.

Its chief merits are CONVENIENCE, DURABILITY, SIMPLICITY, AND CHEAPNESS.

This Gate Can be Erected for \$5.00.

A FARM RIGHT, WITH INSTRUCTIONS FOR BUILDING THE GATE, WILL BE SENT ON RECEIPT OF \$5.00

County and Township Rights For Sale.

Address, **C. W. JONES, London.**

DINEEN'S FUR ROOMS NOW OPEN!

Ladies are invited to look through our stock of Rich and Costly Furs, all our own manufacture, including

Fine Sealskin Mantles and Ulsters, Rich Russian Silk Circulars lined with fur, the very finest quality of Persian Lamb Mantles, Muffs and Caps; Seal Caps of all shapes; Seal Muffs; Seal Hoods and Bonnets, Seal Gloves and Gauntlets; Over 300 Real Dogskin Mantles, made from the choicest skins and warranted. Fur Capes! Fur Capes, an immense stock of every kind cheaper than last year. Fur Trimmings, all kinds, Skins of all countries. Tassels and Linings

Separate Show Room for Gentlemen, where Fur Coats, Robes, Rugs, Mats, &c., are kept. We have everything required in the fur line. Our stock is the largest in the city.

OUR SHOW ROOMS EXTEND OVER SIX STORES ON YONGE STREET

The Ground Flat is occupied exclusively as a Retail Hat Department, the Basement as a Stock Room and Shipping Department. Entrance to all rooms at the Corner of King and Yonge Streets, Toronto.

W. & D. Dineen, Manufacturers & Importers