

# THE MONTHLY FARMERS' ADVOCATE

PERSEVERE & SUCCEED

Vol. 4] DEVOTED TO THE BEST INTERESTS OF THE COUNTRY. [No. 1

WILLIAM WELD,  
Editor & Proprietor.

London, February, 1869.

Postage Free.  
Office—Talbot St., op. City Hotel

### AGRICULTURAL STATISTICS.

We have often alluded to our meagre agricultural information. Its importance toward the farming interest seems to be underrated. We have elaborate reports of the fiscal condition of the country, but our leading interest is neglected. Our fisheries, timber limits and mineral resources engross the attention of our legislators, and the industry of the printer is tasked, and the nation taxed to give reliable information concerning these minor sources of revenue. We by no means object to this but think it a wise procedure, yet cannot but think that as an agricultural people we should have more definite means of comprehending the amount sown and the average yield. Politicians may grow eloquent over our gold mines, our noble forests, but still the fact is plain that our permanent wealth is in the proper cultivation of the soil. Present appearances seem to indicate that more energy will characterize the New Board than belonged to the Old. We trust that such a system will be adopted as will enable us to learn from year to year the progress the country is making in agricultural development. The machinery of the Agricultural Department of the United States is far superior to our own. It has established communications for the purpose of exchange of rare seeds, plants and trees with the leading botanical gardens of the civilized world. Every year seeds and cuttings are distributed for the purpose of being tested among the most intelligent farmers of the various sections adapted for their culture. The number of packages distributed last year amounted to 592,393, including over 30,000 sacks of winter wheat imported by the Commissioners. The following tabular statement shows the total yield and money value of the crops named for the States of the Union:

	Total yield.	Value.
Indian corn, bushels.	768,320,000	\$610,948,390
Wheat.....	212,441,400	424,706,460
Rye.....	23,181,000	32,499,700
Oats.....	278,698,000	172,472,970
Barley.....	25,727,000	22,850,130
Buckwheat.....	21,359,000	23,469,650
Potatoes.....	97,783,000	89,276,839
Tobacco' pounds.....	313,724,000	41,283,481
Hay, tons.....	26,277,000	372,864,670
Cotton, bales.....	2,450,000	240,000,000
		<b>\$2,027,462,231</b>

The following shows the average yield per acre for the whole country:

Indian corn (bu).....	23	Buckwheat.....	17
Wheat.....	11.5	Potatoes.....	82
Rye.....	13.5	Tobacco (lbs).....	631
Oats.....	26	Hay (tons).....	1-31
Barley.....	23	Cotton (bale).....	.306

The average home value per acre for the whole country was as follows:

Indian corn.....	\$18 75	Buckwheat.....	\$49 00
Wheat.....	23 00	Potatoes.....	74 88
Rye.....	19 00	Tobacco.....	82 45
Oats.....	16 00	Hay.....	18 60
Barley.....	20 25	Cotton.....	33 00

The number, aggregate value, and average value per head, of live stock in the United States were as follows:

	Number.	Value.	Average value.
Horses.....	5,756,940	\$432,696,226	\$75 16
Mules.....	858,685	66,415,760	77 61
Oxen and other cattle.....	11,945,484	219,144,599	20 86
Milk cows.....	8,691,518	319,681,153	36 76
Sheep (all ages).....	38,991,912	98,407,809	2 26
Hogs (all ages).....	21,317,258	110,766,266	4 55

When we glance at the items of interest embraced in the above statement we feel that as complete a statement should be given us. Let the Government labor to maintain the Township Societies in active operation and properly managed they would prove so many channels to collect definite knowledge. The head office would simply have to compile the full details given by the subordinate societies, and by these means confer a benefit on the farming community of great value.

### Great Discovery for the South.

The *Journal of Agriculture* says, the pamphlet on the use and merits of the Ramie, by Dr. Roedel, contains all information necessary to those interested in this valuable discovery—and describes this plant, with all its advantages over cotton and as a substitute for it. It is conceded by the results of eminent French botanists, that this plant possesses the following advantages (and machines are already patented for its preparation):

1. That the fibre of Ramie is stronger than that of the best European hemp.
2. That it is fifty per cent stronger and better than the Belgian, flaxen, or linen fibre.
3. That the Ramie fibre may be spun as fine as that of flax, and that it will be doubly as durable.
4. That the plant is a vigorous grower, and will produce far the greatest amount of textile fibre of any plant hitherto known.
5. That it will produce within the belt in which it flourishes, from three to five annual crops, each equal to the best gathered from hemp. It requires less labor than cotton, is not destroyed by the caterpillar, does not suffer from excess of rains, and withstands the longest drouth without injury? can be taken from the field in the morning and, a few hours after, a nice, fine fibre may be had by using a cleaning machine patented by Roedel.

The fibre of this plant is, when cleaned, without bleaching, purely white, far finer than cotton or flax linen. The plant, in a warm latitude, is perennial, and the crops from it are taken like those of cane, by cutting it at the ground; from the ratoons a new growth springs up at once, giving from three to four, and even five cuttings per annum in Louisiana, middle and lower Mississippi, Alabama, Texas, Georgia, Florida, and South Carolina. Rich sandy ground suits best, but it is so vigorous that will do well anywhere, and the roots, or pieces of roots and stalks, can be used to increase the plantation.

In a word, the culture of this plant will reconstruct the prosperity of the South, its market price being already quoted in the foreign prices current.—[Home Journal, Kentucky.]

There is a tract society in Sterling, Scotland, consisting of one man only. His name is Peter Drummond. He is a seedman, and about twenty years ago he began to publish tracts, and he has put into circulation about fifty millions.

**NEGLECTED MANURES.**

An old adage says waste not, want not. This maxim can be applied to nearly every farm yard. It is lamentable to see with what carelessness manures of all kinds abound on every homestead, and the little use and care paid to it. Were greater attention and longer time devoted to this, the backbone of all good farming, we should hear and see less of light crops, exhausted and worn out soils would become an exception, and the agriculturist would find his exchequer replenished abundantly as a reward for his extra labor. A celebrated scientific English farmer recently said that putting in crops without or else with poor manure, reminded him of a person eating a slice of dry bread upon a slice of dry bread, or in other words bread upon bread, and no butter. Manure to your land is what butter is to your bread. It cannot be expected to produce or be fertile, unless it is encouraged and aided by stimulants to support it, and that too frequently. It was never known to be injured by judicious manuring; common sense will show, that the successive cropping robs the soil of the very natural as well as chemical elements that are required to nurture and sustain them. These must be replenished in order that the land be kept up to its producing status. Moreover the value of manure does not consist in its quantity, but the quality is the thing to study. We go in yards in the winter time and perceive the cattle ravenously tearing and munching away at the straw stack, destroying more of this article than they consume, which with the little droppings from the animals, aided more by the snow and rain, gets after a time reduced to a rotten pulp, and is termed and thought by the uninitiated to be manure. but had they a little simple knowledge of chemistry to analyze the component parts, it would be found that nearly two-thirds would be water, which gives it a weight in being carted; but on exposure to the sun and wind evaporates, leaving the ground work, which is nothing but chewed straw excremented by the cattle on this article, and cannot be properly classified as a fertilizer. Hay, straw, grain, and the general produce of the farm given to animals, should be fed to them in good warm sheds—in stalls, with a proper quantity of straw under them for litter. These articles then by the process of nature become amalgamated, and should be carefully collected, and put into a shaply square heap, at least six feet deep. The various gases contained, then come in contact with each other, causing it to ferment and heat, and this will increase its ammoniacal qualities, consequently its strength. All scrapings of gutters and ditches should in the autumn be carefully collected together to form a bottom for the dung heap. It should then be taken from under the cattle,

and well strewn all over it, being careful to collect all dead leaves and vegetable matter of all kinds; strew these generally over the pile, and above all collect all the urine, and throw over it in addition. The dung pile should then be turned over three or four times during the winter by a man with a fork, beginning at one end, it should be cast back, heaping up as high as he can. This has the effect of generally mixing and incorporating it together, the fermentation causing it to decompose and rot, and it then becomes in the best possible state to put on the land. Wood ashes in its natural state, contains little in itself, but is valuable to be mixed with the dung heap, as it is an absorbent, and has the power of catching and retaining the ammonia evaporated by other articles in the air. Caution should be used to have the dung heap, so that rain shall wash it as little as possible, and endeavor to secure what does drain or wash away by putting down a barrel in the ground, and then returning its contents occasionally to where it came from. If our readers will act upon our suggestions which are simple and inexpensive, they will find that they can make a good mixed compost, which, when applied to the land, will be found to act on it at once, and in a state to incorporate itself with the production whatever it may be, and the ultimate result will be good crops, soil not robbed, and what is more encouraging, a stronger material will be required to make their pockets out of, in order to carry back from market the extra proceeds of their industry and attention.

**PRIZE SEED DRILLS.**

Messrs. Maxwell & Whetlaw of Paris have long been celebrated for the manufacture of their Prize Seed Drill which has been giving such entire satisfaction. Not one has been returned although ten days are allowed for trial. This drill has taken six first prizes and six diplomas, and three second prizes at the Provincial Exhibition during the past nine years. It was only awarded the second prize last year. The Empire drill was awarded the first prize. This is an American machine, constructed at a lower price and has an attachment for measuring the number of acres sown.

Messrs. Maxwell & Whetlaw are now manufacturing the Empire drill. They will not recommend them until they have been fairly tested in the country, but will guarantee the Paris drill. They are warranted to sow well any kind of field grain, sow it evenly, and any reasonable quantity per acre. If any of our subscribers are wishing to procure a really good drill they can do no better than send their orders to us, as we are appointed Agents for both of the machines, and our orders will be first attended to. If credit is required a certificate of reliability from the

Reeve of any township is all that is necessary, but that is not required where we are acquainted with the parties. Seven per cent interest is charged if credit is required, and if the machines no not prove satisfactory they may be returned within ten days. The buyer would only have to pay the freight. See prizes in advertisement.

THE CANADIAN DAIRYMAN'S ASSOCIATION will hold their annual meeting at Ingersoll in the Town Hall on the 3d instant at 10 o'clock A. M. X. A. Willard will deliver the address on the important subject of "How to Preserve the Flavor of Cheese." The last year has been a successful one in point of increase of numbers under the able management of Charles H. Ellewith, President, and James Noxen, Secretary. Let all interested attend.

ILLUSTRATIONS.—During the present year we do not design confining ourselves to illustrations strictly pertaining to agricultural matters. We shall not neglect the Youth's Department, and as a sample of our devotion to its interest we present the beautiful cut of the hare-brained team. We will continue these pictures during the year, trusting the increased expenditure will be recompensed by the approbation of our patrons.

**SEEDS.**

The season will soon be here when seeds of all kinds will be in demand. Many varieties that the careful farmer has saved, will answer his purpose as well as the best he could purchase, and often much better, as they are sure to be fresh, and that is a very great consideration. We strongly recommend farmers to raise more of their own seed. We have felt the great loss that has accrued by using inferior seed, and having purchased the best, we are using every means in our power to adopt a system of disseminating the best procureable. To do this as it should be done is a great undertaking, far beyond what our present capital will permit us to expend in the undertaking, however we have not been negligent since last season in testing varieties ourselves, and have also various varieties tested in other parts of the Dominion. The following gentlemen are aiding us in this branch of our undertaking—Mr. Fox of Olinda, Mr. Lepere, of Paris, Mr. Eggleston of Cobourg, Mr. Marr, of Westminster, Mr. Eccles of Yarmouth, Mr. Mason of Morpeth, Mr. Leslie of Toronto and several others.

We have also made arrangements with Messrs. Dawbarn & Co., of Toronto, for packing and supplying seeds for us. We have now command of a good supply just imported from the most reliable seedsmen in England, and to be perfectly sure that the seeds are good Mr. G. Leslie is now testing hun-

dreds of varieties in his hot houses. We wish to supply none but what are really good.

Seed will be supplied to any person ordering, a few valuable and rare varieties will only be supplied to subscribers to the paper. We have expended very large sums of money for the advancement of the Emporium, and each subscriber to our paper is a supporter of it, and will be the first supplied with rare and valuable kinds of seed. We are in a position now to warrant nearly every kind sent out by us. Accounts of every kind we sent out last year were satisfactory, except of the Chilian, or Platt's Midge Proof Spring Wheat, which has not proved to resist the attacks of the midge as well as was represented to us, and we had not been negligent in making enquiries. In our next paper we shall publish prices of different kinds of field grain seed, and in small quantities, so that every farmer, in any part of the Dominion, may be supplied at his own Post Office, or we shall send by post prepaid. Larger orders may be sent by Express or per Rail. Our stock of seeds will be ready for shipment next month. Some of our own raising are now on hand. It takes time to get them from a distance.

We cannot particularly recommend any kind of spring wheat to supply in quantity. Our own spring wheat has not yielded as well as we anticipated, and we have yet to find a kind, if there is such, that will withstand the attacks of the midge. We have procured a small quantity from Mr. Jarvis, of what he termed the Michigan Midge Proof. It has yielded better with him than any other variety; he speaks highly of it. We are fully satisfied by the appearance of it, that the midge has attacked it. We will only supply it in small quantities for others to try in different parts of the Dominion. The Quebec wheat, as we call it, having procured it from that part of the country, and not knowing the proper name for it, appears to us as if it would be more suitable. The China Tea is also highly spoken of by some persons, others speak more highly of the Black Sea wheat. The Rio Grande answered as well with us.

In sending orders be sure and state your P. O. address, as well as your nearest station. Persons having any really good seed are requested to send samples, and state price and quantity.

#### THE OLD AGRICULTURAL BOARD.

It is now four years since we commenced the publication of this paper, and have constantly exposed the mismanagement of the Agricultural Board. By so doing we had brought on ourselves the full power and influence of the old Board and its supporters, and have still been forwarding our plans

despite the numerous plans that have been brought into operation by the managers of Agricultural Affairs. But patience and perseverance will conquer. At length one Member of parliament, Mr. Nathaniel Currie, of West Middlesex, brought the subject before the Legislature and caused the accounts to be investigated. Mr. Currie says that it was from the accounts he read in the "Farmers' Advocate" that induced him to bring the subject before the Legislature. The consequences has been such an exposure of affairs, that every political paper in Ontario has been supplied with food for many weeks past. Thus we need not report the full proceedings, suffice it to say that there appears a deficiency of \$8,000 the whole Board and country are attempting to place all the mismanagement on Mr. R. L. Denison and make him, as it were, the scape-goat. We do not pretend to justify Mr. Denison, but we are too well acquainted with many of the Old Board, and know something about the wire pulling and how the cat has jumped for years, and must say that there are others that have been supporters or supported by the Old Board, that are equally or more to be blamed.

We do not wish to probe this matter further unless we are compelled to do so, as we think it might perhaps tend to our public injury, and we believe the Government will smother the matter over as quietly as possible, and it may be the best. Still we may say, that unless we expose it, it will never be known. We do not consider the loss in cash bears any comparison to the loss the country has sustained, by checking or attempting to stamp out private enterprise, unless the parties should be reliable supporters of the Old Board. In fact the matter had appeared to us that the sum we have been taxed for to foster agriculture, had been used in far too many cases, as a direct check to it. We hope and believe we shall see a great change for the better under the New Board. It is our desire to make known to the public a few facts of importance that may not be known to them, and if possible to attend their first meeting.

#### TO OUR FRIENDS.

We thank you for the numerous valuable communications received, and respectfully invite you to write for our paper any useful hint, however simple, as long as it is of value to others and advantage to us. Never mind about its being written just as you would wish. We look all communications over, and when permission is given, alter them to suit the paper. We prefer giving writers' names, but they are suppressed when desired. Nearly every one of our readers know something that would be useful to others. This paper is for that purpose, and has always had its pages open for any useful subject pertaining to agriculture. Never has any useful contri-

bution been suppressed, therefore we hope to receive from you much more than we received last year. When you have read this take your pen and write an article for the next number. It will do you good and be of benefit to us and to our readers.

#### TOWNSHIP SOCIETIES.

From our exchanges we learn that general prosperity has attended the management of Agricultural Societies, during the past year. The majority have a respectable balance after meeting current expenses. Large amounts have been awarded as prizes, and the government grant has been liberally supplemented by individual effort. Our farmers have generously supported township and county societies, and it has proved beneficial to the interest of agriculture. A laudable ambition has been fostered, and farmers strive to excel. The office bearers of these societies have an arduous duty to perform, and it is a just cause for pride, that so many can be found to devote their time to the successful management of such societies, for no other reward, than the good opinion of their fellows. We fully believe these societies to be mighty engines for good, and our columns will not fail to present such facts, as will benefit them and their interests. In opposition to our immediate interest, we advocated the maintenance of these organizations, against the idea of merging them into large fairs. We consider them local institutions, and trust they will answer the purpose of developing the resources of their own neighborhoods. Will Secretaries and members, please forward us short accounts of their transactions during the year?

#### MINISTER OF AGRICULTURE.

The conduct of the Honorable John Carling in demanding a return of the financial condition of the Agricultural Board, has elicited warm expressions of approval from many of the most influential of our Agricultural Societies. Had other ministers been as faithful in the performance of duty, the present deficit would have been avoided, and the benefit to the country would have been great. Mr. Carling has commenced the work of reform in a masterly manner, and we trust will not cease till other abuses are ventilated and corrected. The praise so freely given to Mr. Carling, should be sufficient to prove to him that he is sustained by a large proportion of his fellow citizens, and has it within his power to win a good name by rectifying the mistakes, and we might almost say, the criminal blunders of his predecessors.

#### NOTICE.

We have an application from a celebrated English Botanist, who wishes us to procure for him 2 or 3 heads of Canadian Chess with the stem attached, the same as cut from the ground. The season being late, we have none. Could any of our numerous readers oblige us with this? His comments and explanations on it will appear in our paper in due time.

## Horses.

### VETERINARY SCHOOL.

The farmers of Canada can congratulate themselves upon possessing a Veterinary College of no mean pretensions. Its success is of vital importance, viewed in the light of our constantly increasing herds. To the French belongs the honor of instituting these establishments of learning one being founded at Lyons in the year 1761. It still maintains a proud position among the Continental Schools. The Emperor allows \$100,000 a year for its support. London boasts of a successful College, and Edinburgh has long been celebrated for the character of the instruction imparted. The Ontario Veterinary College has only been in existence six years, but in that time has gained an enviable position in public confidence. It has three professors who are well known to possess high qualifications for the position. We trust it may meet with a cordial support from Canadians. Animals in a state of nature are exempt from many diseases that characterize them when domesticated. To thoroughly comprehend their anatomy and to be able to prescribe remedies for diseases affecting them is a necessity. We trust the time is not far distant when every village will possess a veterinary surgeon who is well posted in his profession. Many valuable animals are lost owing to maltreatment by inexperienced "horse doctors." We hope that the proprietors of large herds will endeavor to acquire an amount of skill requisite to treat the most common forms of stock diseases.

**DEFEND THE WEAK CATTLE.**—Some farmers are not as careful as their true interests require them to be in separating weak stock from the strong and aggressive when the season of storms and feeding comes round. In most herds embracing any considerable number, will be found some animals diminutive in size and timid in proportion to their physical weakness, which the more vigorous attack whenever a modest effort is made to share in the food supplied. They are hooked here and chased there by the strong, and should enlist the care and sympathy of their owner. It will pay well to provide a separate inclosure for such animals till sufficiently developed to hold their own, at feeding time, or till they are rendered fit to be disposed of in some other way to advantage. If left to shirk for themselves they will be likely to go under before spring, or should they winter through they will be in a condition so exhausted as to render them next to valueless for that season.—*Moore's Rural.*

### THE HORSE.

The front of the horse's chest contains his lungs, by which he breathes. Behind them, separated by only a thin kind of skin, is the stomach, destined to receive and digest the food. Each of these organs becomes larger when in use; the lungs occupying more room when the animal is moving about and breathing more quickly. The space they occupy is then so filled that only one of them can be distended at a time. The horse can swell out his lungs, and breathe

hard, trot or gallop fast, provided his stomach be empty; he can fill it with safety when at rest, or nearly so till the food is digested. But if they are both full, the greatest danger is to be apprehended; the horse is sure to be "blown" almost immediately, because he has no room to breathe, and apoplexy may cause the animal to drop dead in a minute. No horse should be allowed to get an unlimited supply of food. A proper quantity should be given and no more—enough to satisfy his requirements, and then to allow proper time for him to digest. Many a horse has been killed from a fit brought on by the corn bin having been left open at night, thus giving him an opportunity to gorge himself to death with the tempting food.—*London Horse Book.*

### The Bots in Horses.

In one sense, surely, it is "the worm that never dieth;" for ten times a year some empirical recipe—and stale at that—travels the round of our agricultural exchanges, for the infallible destruction of this vivacious creature. Would it not be as well to ascertain whether the bot does injure the horse, before drenching him with all sorts of nostrums—all more or less injurious and absurd? For our part, we do not believe that this worm injures him in the slightest degree, and in this opinion we are sustained by Youatt—the very highest veterinary authority. We remember a discussion among some artillery officers on this very subject, in the month of March—just before the evacuation of Centre ville. Half a dozen dead horses were opened, and the stomachs of all of them were more or less eaten into and riddled by the bots, and yet no one claimed that these animals died of the bots. The fact is, the stomach of the horse is the natural habitat of the insect. If the horse dies, the worm bores through the stomach in the attempt to escape a place no longer suited to its wants precisely as a rat will abandon a falling house. It is preposterous to suppose that one of nature's noblest creations should be at the mercy of so contemptible an insect. We hope this question will be thoroughly ventilated at the next meeting of the Veterinarian Association, and set at rest forever.—*Turf, Field and Farm.*

### Remedy for Tender Mouth in Horses.

Some horses will always be exceedingly tender in the mouth, while others are sometimes unmanageable. The corroding of the iron bridle bit in the mouth of a thin skinned, high strung animal, will sometimes produce canker in the sides of the mouth, just as mechanics often get sore holding cut nails in their lips while at work. Sometimes the headstall is buckled up so short that the iron bit is drawn up with much force against the sides of the mouth. If the skin be tender the animal will be liable to have a sore mouth; and the wound will be so very tender that scarcely the pressure of the weight of the reins can be endured. Sometimes the check-rein is drawn up unmercifully tight. All such things cause sore mouths.

The most satisfactory remedy for a sore mouth is a preventive. If the headstall is too short, lengthen it, so that the bit may ride lower down toward the lips. If the sore is produced by drawing up the check-rein too tightly give it greater length.—*Ex.*

### CARE OF HARNESS.

One has but to pass through the market and glance at the weather stained looking harness on farmers' teams to be convinced that sufficient care is not taken of this article. We know of few who pay the attention that

economy demands. Thousands of dollars are lost by farmers owing to this fact. Leather should be kept soft and pliable especially in winter. We do not advocate keeping it completely saturated with oil until it becomes rotted. But we do assert that if a harness is properly cared for it will last a third longer than is usually the case. Without oil leather becomes stiff and soon breaks and the rain settles in the cracks rendering it weaker and weaker every day. Such a coating should be kept on the leather as will render it water-proof. It looks most magnificent to see a farmer drive up to church with finely polished boots while his harness looks as if it had been dipped in a solution of walnut barks by way of variation. Take care of your harness and you will find that the labor has not been expended in vain. We append a receipt for harness blacking that we can with confidence recommend. The English patent harness blacking, which, is commended for keeping leather soft, and giving it a good polish, is made by dissolving together over a slow fire three ounces of turpentine, two ounces of white wax; then add one ounce of ivory-black and one drachm of indigo, to be well pulverized and mixed together. When the wax and turpentine are dissolved add the ivory black and indigo, and stir till cold. Apply very thin, and brush afterwards.

### RATHER FOGGY.

One day, off the coast of North Carolina, we got into a fog which lasted us the three days' watches, so dense that we could see the channel the steamer cut through it, three miles astern, like a new road cut through a cedar swamp. Lounging along forward about seven in the forenoon watch, I drifted in earshot of two jolly tars, just as one of them put out a feeler in this wise: "I say, Bob, did you ezer see sich a fog as this 'ere, afore?" "Ay, ay, mate, I have that. I have seen fogs down a'ong the Sable Banks and about the Canso, that this 'ere stuff wouldn't be more than a bit of mist alongside of it." "How thick was it, Bob?" "Well, once when I was in the old Rifleman, and we were goin' out to Quebec after deal, we run into a fog bank, one day, that carried away our jib boom and stove in our port bulwarks. There was lots of gulls and other big birds stuck fast all in among the fog, just like sheep in a big snow drift; not a bird of them could move a wing. We'd been on allowance of water two weeks, and the carpenter sawed chunks out of that 'ere fog, to fill every cask in the ship. It was tiptop water that fog made, but it didn't melt very fast. Some of it wasn't melted when we got back to Liverpool, three months afterward."

**PROVINCIAL FAIR.**—The number of entries at Kingston for 1867 were 4,842 and the amount of prizes \$9,630. At Hamilton for 1868 the entries were 6,620 and the amount awarded was \$11,120. We must remember however, that Hamilton is the centre of a rich agricultural district while Kingston is on the outskirts.

A bluff old farmer says: "If a man professes to serve the Lord, I like to see him do it when he measures onions, as well as when he hollers glory halleluyer."

A cabbage has been grown near Jackson, Miss., with thirteen solid heads. Enough for a small family.

**Cattle.**

**TOO MANY CATTLE.**

We believe we can justly assert that the majority of our farmers attempt to winter too great a number of animals. Empty mows greet the spring sun, and weak lean cattle nibble at the half-formed grass. Our winters are trying on stock even with good shelter, and a full supply of nutritious food. But in a large number of instances they possess neither. Many farmers ask themselves what is the prospect for an open winter, and seek for weather signs and on these base the calculation of how many cattle they can "carry through." But lo! their prognostications fail, the winter is severe, and the barn yard is filled with kine so lean that we wonder how such a crop of hair can grow on so miserable a soil of bones. The result is that the season is far advanced before the cattle have recovered from the prostration induced by poor feeding in the winter months. This is a short-sighted policy and farmers will find it to their interest to keep no more than they can maintain in good condition, even if the Spring should open later than anticipated. Dispose of your surplus cattle and pay careful attention to the remainder, so that when grass comes they may be in good flesh and not mere waltering skeletons. Milch cows especially show the results of short feeding in a scanty supply of milk, and calving time finds them so debilitated, that it requires careful attention to recover. Many valuable cattle are lost from this cause. One giant evil of the Western States is the almost insane longing after large farms, and impoverishing tillage is the result, and the same principle guides too many of our farmers who boast of the number of cattle they have, although their farms cannot properly feed half the number possessed.

**FEED FOR COWS.**

To determine the proper variety of food for stock, we must be guided by the object in view. If we aim alone to produce fat, we must provide oily material, and promote rest in order to prevent waste. We must maintain a high temperature as this diminishes the waste of fat also. If we desire the development of muscle, provide food containing albumen. We see the truth of this in feeding horses, for a horse cannot stand the amount of labor or muscular exercise when fed on Indian Corn, that it can when fed with oats. The destruction of muscular tissue is greater than corn from its oleaginous nature can repair. Chemistry is such a valuable assistant to the labors of the agriculturist, that the farmer who does not give every ounce of food with a definite aim, commits waste of treasure entrusted to his care. During the winter months a cow is valuable

in proportion to the per cent. of butter her milk yields. We must feed sufficient oleaginous or fatty matter to serve as fuel to maintain a proper degree of animal heat and to afford a surplus in the shape of butter. That there is a material difference in food is established by the researches of Dumas who decides as follows on

FAT IN ARTICLES OF FORAGE.	
Indian Corn	8.75 per cent.
Rice	1.00 " "
Oats	3.30 " "
Rye	1.75 " "
Wheat	2.10 " "
Dry Hay	2.00 " "
Clover in Flower	4.00 " "
Wheat Straw	3.20 " "
Oat Straw	5.10 " "
Beet	0.05 " "
Potatoes	0.08 " "

A mere glance at the above statement shows the superiority of one article of food over another to attain the object sought. But there is another light in which to view the relative value of food for cows. Sulphuric ether can remove from one hundred pounds of hay 2 lbs. of fatty matter yet a cow in good condition will only give about 1 1/2 lbs. of butter showing that 1 lb. has been stored up or used for the production of heat. From the same we can conclude that the yield is only in proportion to the amount contained in the food given. But aside from the consideration of immediate return cows should be kept in good flesh preparatory to calving time. Many valuable animals are lost owing to neglect in this particular. We do not claim it to be desirable that the cow should be in a fit condition for beef but think they should be in a better condition than is usually the case. Cows should also be warmly sheltered from the cold, and no farmer can expect a profitable return if he permits his cattle to be exposed to the piercing blasts of winter. Shelter is food.

**The Cause of Abortion.**

Thanks for your answer to my query, as to the cause of abort on in cows, in your impression a fortnight ago. I now consider I can trace my losses to stagnant water, which I otherwise would never have thought of. MAIGLE [We are glad to have been able to afford you a clue to the causes which have caused such losses among your cows. Stagnant or foul water is injurious to all animals. It causes blood poisoning and thus leads to many febrile complaints. It brings on abortion in other animals as well as cows. Two winters ago three valuable mares, belonging to a somewhat careless, untidy farmer, slipped their colts shortly after Christmas. The mares had been tolerably well kept, and not too hardly wrought, but they had been watered for several weeks at a pool by the side of which a large manure heap had been foolishly placed, and into which the highly colored organic matters freely found their way.—Some ewes watered from the same pool cast their lambs; while another lot of ewes, kept two fields distant, managed in exactly the same way but enjoying a purer supply of water, carried their lambs to the full period. Since better care has been taken to prevent the water supply being contaminated by the manure heap, neither mares nor ewes have suffered from abortion. Similar cases have doubtless occurred in the experience of many of our readers.]—North British Agriculturist.

**LOW FEEDING.**—There can be little doubt that, as a general rule, cows are not fed high enough during winter to afford the best results during summer. A cow kept in a comfortable well-ventilated stable with abundance of nutritious food, will be healthier and better able to stand the strain on her constitution at calving, than if kept on a low diet; and their can be little doubt that, with a cow of the right sort, all the fat that is accumulated while she is dry will find its way to the pail during the summer in the form of butter. In the dairy districts, wintering a cow is expensive, even on the poorest description of food, but it is a short-sighted policy to stint her, as we thus lose the whole benefit of her existence during several months. It is just as important to feed her well while she is dry as while she is giving milk.—American Agriculturist.

**LIQUID MANURE.**—In every one hundred pounds of cow's urine there are sixty-five pounds of water, five pounds of urea, five pounds of phosphate of lime, twelve pounds of sal ammoniac and muriate potash, and ten pounds of carbonate of potash and ammonia. While the solid excrements obtained from one cow are estimated to manure three times the amount. Our dairy farmers will see, therefore, how important it is to have tanks connected with their stables in which to deposit this material, or a good supply of sawdust, dry earth, or muck, for absorbing it in the gutters of the stable. Urine is more efficient on light soils than on clay lands and strong loams; on the latter much of its carbonate of ammonia is evolved before it can penetrate into them.—Utica Herald.

Oxen are scarce in Oregon. The average price is \$1,000 per yoke.

**A NEW CATTLE DISEASE.**—A new cattle disease has appeared in England. The symptoms are dullness increasing to extreme prostration, difficult breathing, small and frequent evacuations, colorless urine, membrane of the mouth discolored and ulcerated as in the cattle plague, pulse weak but not rapid, and the temperature does not rise. The disease is not inflammatory, and post mortem examinations show that the blood has been poisoned.

**LIQUID MANURE TANKS.**—We take the following from the Western Rural: As liquid manure is exceedingly beneficial to all vegetables, plenty of it should always be available, and without a liquid manure tank this cannot be obtained. For large gardens, a tank should be built exactly like a cistern; the bricks being closely cemented at the bottom, sides, and roof, to prevent the liquid from percolating through the soil, and also to keep surface water from entering the tank. The liquid should be conveyed to the tank by tile drains from the stable, byre, kitchen, etc., and may be taken out by a pump. In small gardens a hogshead or large cask of any kind that will hold water may be sunk in the ground, and will answer on a small scale. In this, soot, guano, etc., may be converted into a valuable manure, by dissolving them in a suitable proportion of water. Manure is much more readily taken up by the roots of plants when in solution than when in a solid state. In fact, solid manure has to be dissolved before it can enter the sponge-like mouths of the roots.

## Flower Department.

### DOUBLE STOCK.

To the ladies—One part of our paper is devoted to the young. This issue is not as replete as we could wish in that department, as we have not given them an Anagram or Puzzle Picture, but there is amusement and a moral in the Engraving. We know that you are all fond of flowers, but many of you are too fully occupied, so that you cannot attend to them, still there are we hope one of the readers of our paper but devote a little attention to them. We now present you with this cut of a beautiful double stock. The cut is sent to us by Mr. Vick of Rochester, who has issued a very large and handsome annual catalogue, highly illustrated, and giving prices of his seeds and plants.

We intend having a supply of choice and suitable flower seeds in the Spring, and if any that are now subscribers induce your lady friends to send in their subscription to our paper, we will send to each lady subscriber a small packet of choice flower seeds, free by post, such as will do you and your friends more good than the price of this paper. Just send one ladies name in from your vicinity, and next year you will be admiring the flowers raised from the seed sent from the Emporium Department.

We will also present any one of you with a few choice Seeds, that send us in a short and useful account about anything that will be of use and benefit to our readers on Domestic Economy. Try it and help your Editor.

### Preparing the Ground for Flowers.

The soil should be a mellow loam, if possible, made deep—a foot or eighteen inches at least—and then the plants will not suffer so much in dry weather. It should also be well pulverized—completely broken up—and made as fine and mellow as possible. It is useless to try to grow good flowers on a poor soil; so, if not naturally rich, make it so with a liberal supply of well rotted manure. Every one—even those who do not keep a horse or cow—can have a good pile of manure for flowers without cost. Obtain a lot of turf from the sides of the roads and the corners of the fences, place it in a pile, and throw all the soapsuds and slops upon it. In the autumn, collect the fallen leaves and put them upon this compost heap. Keep adding to it, as you have time and convenience; and when well-rotted, you will have excellent manure for flowers. Always drain the flower garden, so that water will not lie on or near the surface.

### Sowing Seeds.

Many seem to think that seeds will grow anywhere and under any circumstances. They have seen the farmer make a hole and throw in his corn, and in a little while it was up

and growing vigorously; they have learned that the seeds of our native trees and weeds grow without planting and care; and from these facts they get the idea that it is of little consequence how or where the seeds are planted, so that they are in the ground. But these should remember that the seeds planted by the farmer are usually large and

careless system of planting and cultivation, and fill his grounds with Dandelions and Poppies; but he wants the rare and beautiful flowers of every land, so far as climate will permit, to adorn his garden. He must have those that flourish naturally in warmer climates and under more genial skies; and to do so, care and skill are required, and a

different system of culture than is necessary for the propagation of weeds or the more hardy plants. There are others who have altogether an exaggerated view of the difficulties to be encountered in the growth of plants from seed. These views may be the result of repeated failures. They think a hot-bed or a green-house essential, and that without these conveniences little can be done in growing valuable plants, but this is not the case. —[Vick's Catalogue.

### Seed Bed.

Make a bed of light, mellow soil, in a sheltered situation in the garden; and as soon as the weather becomes settled, and the ground warm, sow the seeds, covering them with a little fine earth, and if very small, sift it upon them. Some one has given as a rule that seeds should be covered twice the depth of their own diameter; that is, that a seed one-sixteenth of an inch through should be covered one-eighth of an inch. Perhaps this is as near correct as any general rule can be. If the weather should prove dry after sowing, it would be well to cover the beds of very small seeds with damp moss, or what is better, with evergreen boughs. A covering of boards, or almost anything that will afford partial protection from the drying winds and sun, will answer a good purpose, for it must be remembered that seeds do not require light for their germination and grow quite as well in the dark until they are above the ground. The covering should be removed as soon as the plants are above the soil, or they will become weak and pale. Of course, it is designed that plants from the hot-bed, cold-frame and seed-bed shall be transplanted to the border or beds where they are to flower, and these helps are intended mainly for Tender and Half-Hardy Annuals. The Hardy Annuals may be sown where they are to flower, though, with the exception of a few varieties difficult to transplant, it is best to grow all in the seed-bed. Some persons succeed very well by starting seeds in the house window in flower-pots. A much better plan is to use shallow boxes, because the earth in small pots becomes dry very rapidly, and unless constant attention is given to watering, the plants will be partially or entirely ruined.



Largest Flowering Dwarf Stock.

produce stronger and more robust plants than those of the florist, and thus are enabled to bear more hardships and to live under more unfavorable circumstances. If the florist would be satisfied with only the most hardy and prolific flowers, such as would take care of themselves, then he might pursue a

The first quarterly fair at Port Perry last week was very successful. A large crowd attended from all parts of the riding; the stock was excellent, and sales encouraging to breeders. Bees changed hands at from \$4 to \$5.

A semi-annual fair will be held at the village of Teeswater, on the second Tuesdays of April and October.

**DISEASES OF THE WHEAT PLANT.**

A correspondent writes on this important subject as follows:

**RUST.**

"I have heard many causes assigned for rust that is such a source of loss to us farmers, but none I think nearer right than the one given by a writer in the 'Advocate' last summer. I believe with him that it is caused by a too rapid growth at night and drying up in the heat of the day; the stalks crack allowing the sap to exude from these cracks, forming what is generally called rust. A careful examination of the wheat soon after the rust makes its appearance will tend to strengthen this opinion. But the question arises is there no way to prevent it, and the only way we can arrive at a preventive is to fully comprehend the cause. If the cause assigned above is correct, I think thorough drainage an important thing as it would tend to produce a slower, and at the same time a harder growth of stem removing all superfluous dampness from the soil. Again, I would not apply any manure unless it was well rotted. Early sowing has its advantages as the wheat is more advanced when the rust strikes it, but I think there is more depending on the situation and the state of the soil than on the time of sowing. A high place is more likely to escape than a low one. I think the soil should also be loosened to a considerable depth in order that the wheat may take a deep root, and it will be less dependant upon the surface moisture, thereby being better able to supply the loss by evaporation during the heat of the day.

**SMUT.**

I have endeavored to find some cause for it but am not perfectly satisfied. As a preventive I would prefer to have my seed fully ripe, and in all cases the soil should be in good condition. I wash it in blue vitriol and am convinced that this, to a certain extent, is beneficial. I have sown some dry and some washed, and the latter was full of smut while the former had very little. I consider one pound of vitriol sufficient for eight bushels of seed—though practice differs.

**CHESS.**

This is undoubtedly a production of partly killed wheat, but it will also come from oats. If you do not cover your wheat well you may rest assured of plenty of chess. My experience has taught me that if I sow good clean seed and have the ground in good order and drained so that no water can remain on the surface and cover the grain well that in ordinary seasons I have not much to fear from chess. Will some of your correspondents express themselves on this subject?

RUSTIC.

**CHANGE YOUR WHEAT.**

Humphrey Hughes, Esquire, of Treadwell Post office, writes a highly commendatory letter accompanying his subscription for the current year. In conclusion he says:—"I would be happy to get a small quantity of your best seed wheat and oats for spring sowing, but I am at a loss to give such directions as will enable it to reach me, for I live some forty miles from Ottawa. I know you are right in advocating the urgent necessity for a change of seed. That is a benefit.

I have demonstrated by actual experiment. Three years ago my own seed wheat threshed from nine to ten bushels per acre, while seed I procured some twenty miles distant, yielded seventeen and a half bushels per acre. It grew on dry gravel land, but I sowed it on loamy land. I believe the change of soil does a great deal, but the change of climate does more in my opinion. Our seeds degenerate every year, so that if we do not get fresh seed we are losing all the time."

[Let us hear from you again.—Ed.]

**COUNTY COUNCILS.**

The criticisms on the nameless scribbler who attempted to impeach the honesty of our Councillors, has called forth a varied expression of feeling. Two have written denouncing us, and concluded their letters by asking us to erase their names from our list. The only answer we have to make is brief. We did what we considered a duty, and nothing that we have heard since our last issue, causes us to regret the course pursued. If the reputations of individuals are to be left to the mercy of anonymous writers who would be safe if a public abuse is to be reformed, or if persons are untrue to their duties, why need a man shrink to proclaim his intention or his name? In a country like ours, where freedom of speech has such latitude, no one need fear personal violence for outspoken criticism. We did not attempt to answer in detail, the remarks of "Rate payer," from the fact that it was merely a bundle of absurdities, such as characterize the general tone of those who have no objection to use the slanderers weapon, if they can do so in the dark. It was written no doubt, to serve a political purpose, and perhaps performed its mission. With this view of the production we will not meddle, but we wish our subscribers to understand, that while we are always willing to assail that which we deem to be public evils, we have no sympathy with those who claim to be working for the public good, and are too modest, or if you please, too cowardly, to give their names. Proof, not assertion, is what we ask, and without it, we are slow to believe that men of the social and moral position of our councillors, are, according to "Ratepayer," mere pilferers of the public funds.

**PRANG'S CHROMOS.**—The New York Herald in an animated description of an Art Exhibition in that city, speaks in the following high terms of these beautiful pictures:

Side by side with the original of Bierstadt's "Sunset in California" was exhibited a chromo copy by Prang, and so faithful is the reproduction that at first glance it is impossible to distinguish between them. Equally faithful chromos of Johnson's "Boyhood of Lincoln" and Coreggio's "Magdalena" were also on view.

In England the average yield of wheat per acre is twenty four bushels; in the United States, twelve bushels; in California, forty-five bushels; and in Santa Clara valley, ninety bushels.

**ORIGIN OF FRUITS.**—Prof. Karl Koch, of Berlin, in a recent paper before the Norwich meeting for the advancement of Science, has proved that the almond is the parent of the peach, as has long been supposed. He did not believe the Green Gage Plum was derived from the same parent as the Damson and ordinary plums, he thought it came from a distinct species. He thought all the cultivated cherries came from one species.

The total quantity of milk delivered in London by railway last year, was 6,309,446 gallons, or above 120 gallons per week.

It is thought the California wheat surplus for export this season will reach 350,000 tons.

**FREEZING FOR CROPS.**—Mr. Samuel Westlake, of Knoxville, who has farmed in Iowa for twenty years, says he has never known it to fail, that a winter which froze the ground very hard was followed by excellent crops the next summer. All will remember that last winter and summer were a notable example of this rule.

**DOES IT PAY TO DRAIN.**—Every day we receive testimony that money expended in reclaiming swampland is not lost. Near our large cities land is valuable owing to market facilities, and many tracts hitherto deemed worthless are being brought under the plough. Mr. Pike, the New York opera house proprietor, recently purchased 4,000 acres of Jersey salt marsh meadows, at a cost of about \$16 an acre. After draining and reclaiming it at an average outlay of \$83 an acre, he is now offered \$900 per acre for the entire property, thus yielding him a profit of millions, if he chooses to close the bargain.

The Galveston Civilian says that cattle over a year old, which have not been marked or branded, are everybody's property in Texas, and may be killed by any one who meets them.

**IMMIGRATION.**—We have a communication from Mr. John A. Donaldson, giving a statement of the arrival of immigrants at this point, showing a marked improvement in the numbers that remained in Canada this year over last. In 1867 only 2,105 remained with us at this agency out of a total of 16,288, the balance, 14,092, passed through to the Western States, while this season, out of 23,505, 4,671 remained in this country, the balance 19,734 passing through.—[Globe. 16th.]

Cincinnati brewers are importing barley from Germany. They say it weighs eight pounds more to the bushel than the American grain.

At the Mount Forest Castle Fair, on the 16th ult., the average prices were—for oxen, \$60 to \$75; steers, \$35 to \$45; cows, \$16 to \$20, and heifers \$10 to \$14.

**HOGS IN ORCHARDS.**—A correspondent of the Missouri Republican adds his testimony to the good influence executed by hogs when pastured in the apple orchard. After trying all the reputed preventatives of insect ravages he came to the conclusion to give up fruit growing, when he was advised to make a hog pasture of his orchard, which he did, and the result was the insect enemies rapidly disappeared and his fruit trees commenced to give their customary yield—the trees seeming to have new life imparted to them.

**THE FATTING HOGS.**—Should now have every care, if they are not already in the pork barrel. Keep their pens warm, fat is fuel which will be used to keep its wearer comfortable unless other means of warming are provided. Feed often and a little at a time. Cooked meal or pudding, a little warm, is the best. If you have no convenience for cooking, a barrel in the corner of the kitchen, or in the cellar, can be used in an emergency. Put meal enough for a feeding in it, turn on boiling water sufficient to make it moderately thin when stirred up, throw a blanket over it and let it stand until cool enough to feed. A little charcoal, a very few wood ashes, or a chunk of rotten wood should be given them occasionally.

**HARROWING.**—In harrowing it is best to pass over the ground lengthwise the first time, then diagonally, and lastly across the furrows. Always roll the land in the first place—this will press down the furrow slices, and give greater efficiency to the action of the harrow by obviating the tearing up and displacement of the sods by the teeth. Harrows of different sizes and different degrees of fineness should be used, especially where fine tilth is desirable, and this is always the case when grain or small seeds are to be sown. Where but one harrow is employed, much of the strength of the team as well as a large portion of the time and labor expended in the operation, is unavoidably lost.—Fx.

## Youth's Department.

## A HARE-BRAINED TEAM.

A fine ride this little fellow was taking across the fields with his trained team of dogs. The dogs were models in their way until beset by strong temptation. Obedient to their master's voice until the hare appeared, and then nature became aroused

We know not what we are until tried. We should judge men by comparison with their surrounding, for it is temptation alone that proves the integrity of the soul. We have seen many a lad thus run away with, not by dogs, but by his own thoughts, and instead of being a man of honor, has become an out-cast, and a thief. Drive with a tight rein, so that if temptation presents itself, we can stop instead of following.

My 9, 11, 10, 5, is a bird.  
My 9, 11, 12, 14, 5, 3 is one who prospers by others ill.  
My 12, 2, 6 is a kind of coach.  
My 6, 8, 14 is a small animal.  
My 1, 2, 14 is a kind of Oil.  
My whole is what every farmer needs.

W. CROSS, Pelham.

A Sc: recrow has been invented down East of so hideous a character that the crows are bringing back the corn they stole last year. Ahem.



within them, and they followed in fierce pursuit, unmindful of the remonstrances of their driver. It is the same with our passions. We think we have them under control, but in some unguarded moment temptation overcome us, and the reins are snatched from our grasp, and we become slaves not masters. If we throw the reins upon the necks and leave our passions to dash away in unbounded freedom, the inevitable result is disaster and ruin. A quaint old writer once remarked, "not to mistake a full stomach for honesty," and there is embraced in it sound philosophy.

## ENIGMA.

I am composed of 15 letters.  
My 11, 3, 9, 5, 6, is necessary in every place.  
My 3, 11, 4, 5 is an ancient city.  
My 7, 14, 15, 2, 4, 5, 6, is a traveling conveyance.  
My 11, 6, 15, is a kind of mineral.  
My 2, 9, 13, 4, and 15, 10, 5 are witnesses of God's great work.  
My 6, 11, 7, 5 is a flower.  
My 12, 11, 6, 3, 5, 12, 14 is what every one likes to be.

## SOLUTIONS OF PUZZLE IN LAST NO.

ANSWER TO RIDDLE.—Time.

ANSWER TO PUZZLE PICTURE.—See the fox in centre of picture, seizing the rooster by the neck.

ANSWER TO ENIGMA.—William T. Craig.

The following persons sent correct answers to Enigma and Puzzle: W. Brown, Bonhamhead, R. McCormick, Pentanguishene; W. Cross, Pelham; John Armstrong, Ainleyville; Chas. L. Manley, St. Catherines; S. Flagler, Hillier; Peter A. McHinley, Ridgetown.

## Poultry Yard.

## HENS.

Eggs as well as poultry have commanded fair prices throughout the year. Parties residing near market towns have found the poultry-yard a source of considerable income during the present season. Aside from the home demand, nearly 7,000 bbls. valued at \$80,000 have been shipped to the New York market from this Province. Sixteen cents per dozen may be put down as the average price during the year. Buyers have purchased all offered and could have handled double the quantity with ease. We would advise our subscribers to pay more attention to their fowls, believing from our rapidly increasing population, that a ready market will be provided for some time to come. On large farms the cost of production is very small. In the summer there are myriads of insects that afford an almost sufficient supply of food, and the fowls are valuable assistants in destroying these pests. In the winter there is always considerable grain scattered where stock is fed, and this contributes considerably to their support, and utilizes what would otherwise be wasted. For the amount of capital invested, no other branch of the farm returns a greater per cent. From some unexplained cause the yield of eggs in this Province fell short of 1867 of fully one-third. Judging from this we can safely predict that our subscribers will find it to their advantage to increase their stock of poultry, and to devote some little attention to their care.

## THE HEN FEVER.

The fever began early in the year 1849, in the neighborhood of Boston. An enthusiastic physician, by the name of Bennet, had the honor of starting it, by advertising an exhibition of his "sample fowls of the following breeds, namely: Cochin China, yellow Shanghai, black Spanish, white Dorkings, Plymouth Rocks, &c."

The press of the country was rife with graphic descriptions of extraordinary pullets, of beautiful cocks, and enormous eggs, "laid on the table" of the editors; poultry breeding and poultry shows became the rage; fancy specimens of fowls, presented to Henry Clay, Daniel Webster and Queen Victoria, were paraded with letters of acceptance and thanks.

To raise a chicken cock a little heavier, larger or taller on the legs than somebody else's, or to have a "pure-blooded" rooster that could out-crow all the vocalists of the neighboring barn-yards, became the ruling passion of hundreds of sober citizens.

Early in the history of the mania, the moderate price of ten to thirteen dollars per pair was paid for fowls which had never hitherto been worth over fifty cents to one dollar. These prices were denounced by the early victims as monstrous, ridiculous and outrageous; yet the fever spread so rapidly that fowls of all species came to be in a demand that far exceeded the supply.

At a later period, the principal dealer sold a good many of the choice breeds of his stock at from \$50 to \$100 per couple. Even this enormous price was surpassed in one instance, about the time the Queen's birds reached England and were figured in the Illustrated London News. The chicken dealer who presented them to Her Majesty received an order for four Gray Chittagongs from a gentleman in London, who readily paid sixty guineas for them, or over \$150 a pair. The height of the hen-fever in England, about this time, reached, and even surpassed the development of the same epidemic in the United States. The Scientific American, in the fall of 1862, stated that "the Cochin China fowl fever was as strong in England as in some parts of New England, in fact stronger. One pair exhibited was valued at \$700. What a sum for a hen and rooster! The common price for a pair is \$100," added this journal; but we have no space for detail, and must confine our history to the ravages of the epidemic in our own country.

This singular fever broke out at a time when money was plenty, and when there was no other speculation rife in which it was easy for everyone almost to participate. Hence it outlasted many of the other speculative manias known to history, its period having been between five and six years. The whole community, almost rushed to the breeding of poultry, without the smallest skill or knowledge of the subject. Nearly all lost money, while a few shrewd traders reaped handsome profits. These recklessly invested their twenties, fifties and hundreds, hoping that the bubble of speculation would last their day, and enable them to come out with snug little fortunes. But the bubble burst while the majority were still experimenting. Collapse and disappointment was the fate of the vast majority of the hen-speculators of the memorable era from 1849 to 1855.—Cincinnati Commercial.

To be certain of eggs in winter, hens must be ten months old, well fed and housed, and any breed will answer. Old hens will not lay until well feathered. First, feathers; second eggs.

WINTER FOOD FOR POULTRY.—To insure a good supply of eggs during the winter, we must feed our hens with materials that contain a good supply of those substances from which eggs are formed. Fresh meat chopped fine, bits of fish, rinds of cheese, and such like things saved from the table to-day, will come back to the table in due time, in the form of new laid eggs.

That the poultry may remain healthy during the winter, they should occasionally be fed with vegetables. Boiled cabbage is good, and carrots, livers and scraps of meat rejected on the table, potatoes and onions too small to use, and a little fat that would go into soap grease, will, when chopped and warmed, make a savory dish for the fowls in the hennery.

In preparing for obtaining eggs we must not forget that the eggs will require shells. For this end we should lay by a suitable amount of bones, or else should pulverize such as are in the meat we are daily cooking, and keep this where it will not become covered with filth. Besides this, the fowls should have, from time to time, some coarse, sharp sand or gravel, to serve the place of teeth.—[Prairie Farmer.

## DOMESTIC ECONOMY.

GOOD HAMS.—After hams have been smoked, take them down and thoroughly rub the flesh part with molasses, then immediately apply ground or powdered pepper, by sprinkling on as much as will stick to the molasses, when they must be hung up again to dry. Hams treated in this manner will keep perfectly sweet for two or three years. This must be done before the fly deposits its egg, for after that is done, nothing will stop their ravages.

TO REMOVE PUTTY.—Those who have plant houses, frames, &c., know how difficult it is to remove old putty from sashes without injuring the sash. I have seen it stated in some journal, that it could be removed very easy by applying a hot iron to it. I tried the experiment a few days ago for the first time, and was quite surprised to find how easily the most indurate old putty could be cut out after being well warmed up by the application of a red hot iron. Try it.

CURE FOR THE TOOTHACHE.—At a meeting of the London Medical Society, Dr. Blake a distinguished practitioner, said that he was able to cure the most desperate case of toothache, unless the disease was connected with rheumatism, by the application of the following remedy: Alum, reduced to an impalpable powder, two drachms; nitrous spirit of ether, seven drachms; mix and apply to the tooth.

TO CLEAN GLASS.—Common newspaper is one of the best articles. The chemical operation of some ingredient of the printing ink gives a beautiful polish. Slightly moisten a piece of paper; roll it up and rub the glass; then take a dry, soft piece and repeat the process. No lint will remain, as in the case of using cloth.

TO CURE A FELON.—It is said that a poultice of onions applied morning, noon and night, for three or four days, will cure a felon. No matter how bad the case, lancing will be unnecessary if the poultice is applied. The remedy is a sure, safe and speedy one. So says some one who pretends to know. If a genuine remedy it is worth circulating.

TO FIX THE CLOCK.—Take off the pointers and the face, take off the pendulum and its wire. Remove the ratchet from the tick wheel and the clock will run down with great velocity. Let it go. The increase wears away the gum and dust from the pinions; the clock cleans itself. If you have any pure sperm oil, put the least bit on the axles. Put the machine together, and nine times in ten it will run just as well as if it had been taken to the shop.

SHARPENING EDGE TOOLS.—The Mark Lane Express copies the following recipe for sharpening edge tools from a German scientific journal, for the benefit of farmers, mechanics and laborers:—"It has long been known that the simplest method of sharpening a razor is to put it for half an hour in water to which has been added one-twentieth of its weight of muriatic or sulphuric acid, then lightly wipe it off, and after a few hours set it on a hone. The acid here supplies the place of a wet-stone by corroding the whole surface evenly, so that nothing further than a smooth polish is necessary. The process never injures good blades, while badly hardened ones are generally improved by it, although the cause of improvement remains unexplained.

"Of late this process has been applied to many other cutting implements. The workman, at the beginning of his noon-spell, or when he leaves it in the evening, moistens the blades of his tools with water acidulated as above, the cost of which is almost nothing. This saves the consumption of time and labor in whetting."

ARTIFICIAL HARVESTING.—A process of artificially drying and curing hay and sheaves of grain in wet seasons has been brought before the notice of British agriculturists, by Mr. Gibbs, in a prize essay. The process, which Mr. Gibbs has subjected to the test of actual experiment, consists in passing the hay or sheaves to be dried through a shed supplied by a furnace and fanned with a continuous current of hot air. The method is endorsed by the approval of some of the best agriculturists in the kingdom.—Ex.

BROILED LAMB STEAK.—Broil slowly until quite done, then make a gravy with fresh butter melted by the steak, add a dust of pepper, and a little salt dissolved in a tablespoonful of water.

**Agricultural and Horticultural Society of London.**

The annual meeting of this Society was held on Tuesday the 19th instant and was well attended. The annual report was read, exhibiting a favorable condition of affairs. After meeting all expenses, there is a balance in hand of \$837 75. The management has been most efficient, reflecting credit on the office bearers. The election of officers for the current year, was then proceeded with and the following gentlemen elected.

President—Jas Johnson.

1st. Vice-President—Mr. Jas. Cousins.

2nd Vice President—Mr. Jas. Durand.

Treasurer—Mr. John Stewart, re-elected.

Secretary—Mr. Wm. McBride, re-elected.

Directors—Messrs. J. Campbell, E. Glackmeyer, W. Saunders, W. Bissell, W. Barker, Charles Andrus, Jno. Christie (Mayor), H. Fysh, and John Elliott.

Mr. Cousins moved that Mr. Johnson be the representative of this society at the Board of Agriculture for 1869. Carried.

Messrs. E. J. Collett and W. Dempster were appointed auditors.

**COBourg HORTICULTURAL SOCIETY.**—The regular meeting of this Society, for the election of officers, &c., was held in the Council Chamber on the 15th ult., when the following gentlemen were elected office-bearers for the current year, viz:

E. A. McNachtan—President.

David Brodie—Secretary.

We are pleased to learn that the Society is in a very flourishing condition, there being a handsome balance in the Treasurer's hands.

A Horticultural Society has been formed in Goderich. The officers are A.M. Ross, President, John Hunter, Vice President, P. Adamson, Secretary. Mr. Crabb has given a room rent free for the Society to meet in. May they prosper.

**OFFICERS ELECT.**

We present this month the names of the Presidents and Secretaries of the different agricultural Societies that have reached us. The list will be continued as we are able to glean the desired information:

West Gurafraxa—R. J. Black, President, F. Cassidy, Secretary.

Arthur—W. White, Pres., J. Isles Sec.

Welles'ey—John Wilson, President, Geo. Oakley, Sec.

Biddulph—R. Smith, President, James Dagg, Secretary.

Logan—Jas. Sills, Pres., T. Covenney, Sec.

Markham—James Eckwardt, President, Jas. Speight, Secretary.

Thorold—Jacob Gainlo, President, Robert Spencer, Secretary.

Hamilton—John Cullis, President, Richard Cullis Secretary

Eramosa—John Grieve, President, Wm. Tolton, Secretary.

Reach—Mr. Graham, President, J. Christie, Secretary.

Beverly—Wm. Henderson, President, Jas. Bishop, Secretary.

Darlington—George Mitchell, President, R. Windatt, Secretary.

Haldimand—W. H. Wickett, President.

Vesper—Jno. Darby, Pres., G. Sneath, Sec. Cavan—W. H. Russell, President, J. W. Southeran, Secretary.

West York—J. P. Bull, President, B. Bull, Secretary.

Huron—H. Snell, President, S. Malcolmson, Secretary.

Paisley—James Houston, President, M. McNamara, Secretary.

Ottawa—J. B. Lewis, President, A. S. Woodburn, Secretary.

Wallace and Elma—W. Lochhead, President, J. C. Tilt, Sec.

North Ontario—George Wheeler, President John Christie, Secretary.

Luther—W. White, President, J. Isles, Sec.

Kincardine—Wm. Miller, President, Dr. Thos. Bradley, Sec.

Bosanquet—Wm. Hollingshead, President, John McGregor, Sec.

East Gwillimbury—J. Lundy, President, A. J. Hughes, Secretary.

Erin—A. McMillan, Pres., J. W. Burt, Sec.

West Hastings—G. Gilbert, President, S.D. Farley, Secretary.

East Middlesex—John Wheaton, President, H. Anderson, Sec.

West Flamboro—Thos. Bain, Pres., Chas. Durant, Sec.

Paris—C. Whitlaw, President, H. Hart, Sec.

Matilda—T. Rose, Pres, H. Harkness, Sec.

Burford—D. G. Hanmer, President, J. Bingham, Sec.

Haldimand—D. Thompson, President, J. Young, Sec.

St. Catharines—Wm. Eccles, President, F. W. Macdonald, Secretary.

Cramahe—E. H. Black, President, Wm. Easton, Secretary.

Tuckersmith—R. Govenlock, President, Wm. McConnell, Sec.

North York—F. Smith, President, E. Jackson, Secretary.

Uxbridge—S. Widdifield, President, T. Todd, Secretary.

South Ontario—J. Shier, Pres. Robson, Secretary.

North Simcoe—J. Ross, Pres., J. Thomas, Secretary.

Stamford—G. Hyatt, Pres., J. A. Law, Sec.

Guelph—A. Hogge, Pres., G. Murton, Sec.

Georgiana—J. Marrett, Pres. H. Ego, Sec.

Halton—A. Campbell, President, W. C. Beatty, Secretary.

Sydenham—D. McDowall, President, Chas. Gordon, Secretary.

Willoughby—E. Shainboldts, President, J. McCredie, Secretary.

South Wellington—T. McCrac, President, G. Murton, Sec.

Minto—J. Praine, President, H. Meiklejohn, Secretary.

West Northumberland—G. Bennett, President, C. Bourn, Sec.

Bruce—D. Brown, Pres., Wm. Scott, Sec.

Turnbarry—F. W. Irwin, President, Wm. Anderson, Sec.

Brock—J. Hart, Pres., H. Glendinning, Sec.

Pittsburg—J. G. Strachan, President, R. J. Milton, Secretary.

Scott—G. Thompson, Pres., H. Turner, Sec.

Durham—P. Falle, President, R. T. Williams, Secretary.

Adelaide—F. Petch, Pres., A. Preston, Sec.

Derby—L. Beaton, Pres., Wm. Beaton, Sec.

Oxford North—H. Parker, President, R. W. Sawtell, Secretary.

Kingston—J. H. Allen, Pres., A. G. Briggs, Secretary.

South Perth—J. H. Gould, President, W. W. Ford, Secretary.

South Brant—H. McEwen, President, D. McKay, Secretary.

Harwich—Wm. Clarke, President, W. R. Fellows, Secretary.

Cardwell—G. McManus, Pres., J. Allen, Sec.

Lambton—H. Rawlings, Pres., E. Watson, Secretary.

South Victoria—J. Connolly, President, W. J. Thirkell, Secretary.

Kent—G. Young, President, R. Lowe Secretary

Niagara—W. Kirby, President, H. Servas, Sec.

South Simcoe—Dr. Morton, President, W. M. Stevenson, Secretary.

Ameliasburgh—L. B. Stinson, President, S. P. Niles, Secretary.

North Simcoe—J. Ross, President, J. Thomas, Secretary.

Addington—S. Shibley, President, J. B. Aylsworth, Secretary.

Lennox—Dr. Bristol, President, C. Jaines, Sec

West Durham—I. B. Lovekin, President, R. Windate, Secretary.

South Norfolk—J. Coveston President, H. W. Smith, Secretary.

Huron—David Henderson, President, T. Wilson, Secretary.

**WEST MIDDLESEX AGRICULTURAL SOCIETY.**—At the annual meeting of this Society held at Strathroy on Wednesday last, the following officers were appointed:—President, G. McGugan and G. Buttery. Sec. and Treas., James Keefer, Esq. Directors, Messrs. Jno. Campbell, M. Campbell, Thos. Moyle, T. Hughes, Wm. Buttery, A. Carmichael, S. Stevens, John Henderson, and W. H. Armstrong. L. E. Shipley, Esq., was nominated as a Councillor to represent this electoral division in the Provincial Board of Agriculture.

**SOUTH HURON AGRICULTURAL SOCIETY.**—The annual meeting of this society took place at Brucefield on Tuesday the 19th inst. The President, Jas. Dickson, Esq., in the chair. Moved by Dr. Coleman, seconded by Jas. Bell, that James Dickson, Esq., be our President for the current year.—Carried unanimously.

Hugh Love, Sen., Esq., was re-appointed Secretary.

Robt. Gibbons, Esq., was appointed member of the Council of Agriculture.

It was agreed to hold the next Fall Show at Seaforth.

**HOW ARE YOU RECIPROCITY?**—At the port of Buffalo alone a vast amount of business has been transacted during the last year. The exports to Canada amounted to \$300,000 while the imports from the Province of Ontario amounted to \$3,000,000. Who pays the duty?

The second Monthly Cattle Fair held lately at Paris did not come up to expectations. A large quantity of excellent stock was exhibited, but few buyers were present. There was among the sales one car load of sheep for Buffalo.

**SHEEP.**

Ere another number of our paper is issued, some of our best farmers will have several lambs which they know how to take care of. Some of our worst farmers may also have some and to those we would wish to speak. Many will be frozen to death, others will have their ears and tails frozen even in dry sheds, and thus check the growth of the lamb. The best treatment is prevention. If the lambing place is warm enough there will be no danger, but not one farmer in a thousand has a suitable place for early lambs and should not attempt to have them too early without conveniences. However, many may be saved even if partly frozen, by placing the frozen extremities in cold water, until the frost is drawn from them and then rubbing the lamb with a coarse cloth till dry; there will be no danger of its then freezing. We never knew of a lamb freezing after it was once dried, that is, provided it is not allowed to get wet and has sufficient nourishment. There is, numerically speaking, a great loss by having lambs early, but in point of value, one early lamb properly cared for, is worth two and often three late lambs. Give all your sheep shelter at this season of the year and a little grain to encourage a flow of milk, and to prevent your wool from becoming cotted. Sheep should not be in a damp or wet shed; better to be in the open air than confined in filth; it tends to diseases of various kinds. Now is the time to feed celery. We do not commend large quantities of turnips for breeding ewes before lambing. They are good for growing stock and may be given freely to ewes after lambing, a limited quantity only should be supplied to them previously. We have met with losses from too generous use of them, the lambs have been overgrown and caused difficulty in lambing and a greater loss in ewes than when only moderately used. This is a caution that is not much needed by most farmers at any time, especially this year when our root crops are scarce, but as we are speaking on this subject we deem proper to mention it. Some may profit by it in future.

Eight thousand sheep perished in a snow storm in south-eastern France, recently, causing their owners a loss of \$35,000.

The decline in the price of wool and the prevalence of foot rot among the sheep has caused a panic among Indiana and Ohio wool growers. Farmers are rapidly slaughtering their stocks. In Knox County, Ohio, 40,000 sheep have been killed within two months, and a proportionate reduction has occurred in other counties. This policy, of course, will diminish the yield of wool next spring.

A Kentucky farmer recommends that wool-raisers pasture their sheep with cattle as an effectual preventative of ravages by dogs. He has followed this practice for many years, and he has never lost a single member of the flock by dogs.

**GROWTH OF WOOL IN THE UNITED STATES.**—The Rutland county (Vt.) Journals says: "The history of the growth of wool is very curious. Fifty years ago not a pound of fine wool was grown in the United States, in Great Britain, or in any other country except Spain. In 1784 a flock was sent to the Elector of Saxony as a present from the King of Spain, whence the entire product of Saxony wool, now of such immense

value. In 1809, during the invasion of Spain by the French, some of the valuable flock were sold to raise money. The American Consul Jarvis, at Lisbon, purchased 1,400 head and sent them to this country. A portion of this pure and unmixed Merino flock is still to be found in Vermont at this time. Such was the origin of the immense flock of fine wool sheep in the United States at the present time."

At a late sale of sheep, at Worcester, England, fifteen Shropshire Down rams brought from £6 6s. to £23 2s.—Twenty Leicester rams averaged £6 16s 6d. Ten Oxford rams from 14½ to 70 guineas.

**A SHEEP VERDICT.**—Some months since the Messrs. Hammond, of Middlebury, Vermont, lost a celebrated Merino ram, on which had been obtained a policy in the Hartford Live Stock Company. It seems payment was denied, and the matter went before the Circuit Court in Rutland, where a verdict for the plaintiffs of \$5,000 was obtained.

The Butchers' Association of New York have awarded to Mr. George Oliver, of Galt, a valuable silver cup for the best sheep brought into their market this season.

**Club Prizes.**

Our readers have seen the list of prizes that have been advertised in our paper, and presented by gentlemen that wish success to this paper and the Agricultural Emporium. Active agents may make money easily by gaining them. You see those that have already been awarded. There are many highly valuable prizes yet to be awarded, that were advertised last month. All those that get up a club of 15 or over, are sure to have one of Prang's highly interesting Chromo pictures of Poultry of the World worth \$2, and if they are not all gained they will be sure of having some of the large prizes. The Threshing Machine, the \$50 cash, the Cider Press, \$25, and all the prizes below the \$10 Washing Machine, are still to be gained. Besides the prizes given this month, as we find numerous small clubs and single subscribers coming in, we offer them also inducements. These are offered to those that are not in arrears, or new subscribers.

**Prizes Sent in in January.**

A. G. Machell, King.—J. Abel's Feed Mill, \$35.  
John Day, Thamesford.—G. Leslie's Fruit trees, \$25.  
J. Richardson, North Pelham.—J. Elliott's Plough, \$16.  
W. A. Ayerst, Wyandot.—J. N. Lake's Sewing Machine.  
W. H. Gane, Ingersoll.—M. Cousins' Straw Cutter, \$14.  
J. Tassie, Madoc, Jones & Co.'s Farm Bell, \$12.  
J. Pennock, Elgin, Leeds Co.—1 prize Washing Machine, presented by J. Baker, of Oakville.....\$10

The following gentlemen have gained the very handsome picture of Tropical and Summer Fruits, which are \$1 50 each, and we feel sure they will be highly admired by all who see them.

G. Wilcox, Bethany; H. Pollard, York; W. Egleston, Cold Springs; J. D. Campbell, Molesworth; Norman Fields, Mallorytown, and G. W. Clemens, St. Georges. Numerous persons have gained free copies of the paper. They may send for them, or increase their lists for higher prizes.

We have not yet received an article suitable for the award of the literary prize. Persons that have not yet been awarded prizes on account of their numbers being high enough, or from an omission, may still have the opportunity of adding to them.

**ERRATUM.**—In our January issue, we neglected to give the address of Isaac Freeman, who raised 51 bushels of early Gooderich potatoes from ½ bushel of seed, his address is Rodney P. O.

FARMERS we do not pretend to give you as large or handsome or expensively finished paper as some of the English and American Agricultural papers are, but for the amount of really good, useful and practical matter that is of importance to us, we ask you to judge each article in this paper and compare them with any publication, compare the number of articles and what is said and decide for yourselves. Remember this publication is not intended to interfere with politics excepting those relating to agriculture.

It is stated in the AMERICAN ENTOMOLOGIST that there are seven different insects, three of which are known to devour the larvæ of the curculio, and four are strongly suspected of doing so.

A FEW days since a lady of Gloucester, Mass., had occasion to leave her house for a few moments, and left her six months' baby on the floor. On returning, she was surprised to find the child missing. After searching for some time she discovered that the family dog had taken the baby to the garret and deposited it in a basket of rags.

If a farmer looks out for the odds and ends about his farm, it may be put down that he will be successful.

Many Christians, says Beecher, are like chestnuts—very pleasant nuts, but enclosed in very prickly bars, which need various dealings of nature, and her grip of frost, before the kernel is disclosed.

Russia has sixty-eight agricultural schools and colleges, one of which has 3,000 acres attached.

**CONTENTS.**

	Page.
Agricultural Statistics.....	17
Great Discovery for the South.....	17
Veterinary School.....	20
Defend Weak Cattle.....	20
The Horse, Bots in do. & Remedy for Tender Mouth.....	20
Rather Foggy.....	20
Provincial Fair.....	20
Too Many Cattle, Feed for Cows, The Cause of Abortion, Liquid Manure, and New Cattle Disease.....	21
Liquid Manure Tanks.....	21
Hare-Brained Team with Engraving.....	24
Enigma and Answers to Puzzles in last month's No. ....	24
Hens, Hen Fever and Winter Food for Poultry.....	25
Domestic Economy.....	26
Deep Ploughing, The Raining Tree, Extraordinary Pig and Wintering Bees.....	28
Poetry—Canada, Little Giant Thresher, Who would not be a Farmer, How to Prune Grape Vines, and How to Prune Red and White Currants.....	29
Flower Department.....	22
Neglected Measures, Prize Seed Drills, The Canadian Dairymen's Association, Illustration and Seeds, Township Societies, Minister of Agriculture, Notice, To our Friends and The Old Agricultural Board.....	19
Advertisements.....	30 31 & 32
Agricultural and Horticultural Information.....	26
Diseases of the Wheat Plant, Change your Wheat, County Councils, and Miscellaneous Articles.....	23
London Markets.....	27
Sheep, Erratum, and Club Prizes.....	27
Seed Grain for sale.....	30

**LONDON MARKETS, LONDON, Jan. 25th, 1869.**

Fall Wheat, per bushel.....	1 00	to	1 10
Spring Wheat do.....	1 00	to	1 02
Barley do.....	1 10	to	1 25
Oats do.....	45	to	47
Peas do.....	70	to	80
Corn do.....	65	to	75
Beans do.....	1 00	to	1 50
Clover do.....	6 00	to	6 25
Timothy do.....	2 00	to	2 50
Rye do.....	75	to	80
Hay, per ton.....	8 00	to	10 25
Butter, prime, per lb.....	20	to	25
Eggs, per dozen.....	18	to	20
Potatoes, per bushel.....	65	to	75
Apples.....	75	to	1 00
Flour, per 100 lbs.....	2 50	to	3 00
Mutton, per lb., by quarter.....	6	to	7
Beef, per pound (on foot).....	5	to	6
Pork.....	5 00	to	9 00

**DEEP PLOUGHING.**

Horace Greeley read the following paper before the Farmer's Club of the American Institute. After citing a few instances where there was a poisonous subsoil that it was injudicious to disturb, he advocated a disturbance of the soil more than is generally practiced by farmers:

"I have thus fully conceded that deep plowing is not everywhere requisite. Now let me show where and why it is needed: 1. It has been abundantly demonstrated that the roots of plants are often found at a distance of several feet from the stem. Any of us may have seen that this is as true of Indian corn as of Canada thistles. With a microscope and due patience, the roots of wheat may be traced from four to six feet. Of course, these roots seek nourishment and find it. Nature, in the broad view, makes no abortive, at least no wanton effort. Roots wander in search of food not otherwise to be found. 2. Our subsoils are generally compact and repellent. Wherever a ditcher would naturally use a pick, there few roots can make their way except very slowly and by wasting effort. Few or no cereals or edible roots can feed and flourish on the penetration of such subsoils. And while our sands and looser gravels are more easily traversed, they seldom contain the plant-food whereof the roots are in search. They either remain unpenetrated, or the effort is unrewarded by any gain of nutrition to the plant. 3. Our summers and autumns are often persistently hot and dry. The continuously torrid suns, which this year destroyed half the later crops of Europe, are here encountered as often as every third year. Drouth is one of the foremost causes of the failure of our crops. Our ancestors mainly migrated hither from the British Isles, from Holland, and the coasts of Northern and Western Europe, where humidity is the rule, protracted drouth the exception. Sixteen inches of soil in our climate is hardly equal, as an antidote to drouth, to six inches in Ireland and Holland. And yet the best farmers of those countries agree in commending deeper plowing. 4. What we advocate is not the burying of the vegetable mould or natural surface sod under several inches of cold, lifeless clay, sand or gravel. If the subsoil is not to be enriched, it may better remain a subsoil. But that does not prove that it ought not to be lifted, stirred, aerated, pulverized. The right thing to do is to enrich as well as mellow and aerate the entire soil to the depth of fully eighteen inches, though twelve may answer as a beginning. Use a Michigan or a subsoil plow, if you will, and keep the various strata where nature placed them. But give your plants, like your cattle, a chance to reach food and drink at all times. Let down the bars that would keep them from the life-springs. 5. Plants look to the soil for (1) anchorage; (2) moisture; (3) most of their food. If they cannot find these more certainly in twelve to eighteen inches of soil than in six, then reason is a fool, mathematics a conjectural science, and a farmer should prefer a balance in bank to his credit of \$600 to one of \$1,000. 6. We are told that the roots prefer to run near the surface, loving the warmth of the sun. Let them run there, then. We do not hinder them. Make the soil rich as well as deep, and let them run near the surface for warmth and descend for moisture, or both, as they see fit. We proffer them freedom of choice. If a wet season attracts them to the surface, a dry one must constrain them to dive for moisture. It is our duty so to provide that they may flourish however wayward the season. 7. I have a steep hillside, which I choose to cultivate, the soil being warm and kind. Plow this six inches deep, and the first hard shower sweeps its soil by cart-loads into the brook below, where it is useless. Plow it twice as deep and not a peck of soil will be flooded off in a lifetime. 8. In a wet season

plowing does, at the worst, no harm. In a dry season it doubles the crop. 9. Unless a small army is more effective than a large one, an empty pocket-book better than a full one, a lean crop preferable to a large one, then a deep soil must be more productive than a shallow one."

**THE RAINING TREE.**—The island of Fierro is one of the largest in the Canary group, and it has received its name on account of its iron bound soil, through which no river or stream flows. It has also but very few wells, and these not very good. But the great Preserver and Sustainer of all remedies this inconvenience in a way so extraordinary that man will be forced to acknowledge that he gives in this an undeniable demonstration of his wonderful goodness. In the midst of the island there grows a tree, the leaves of which are long and narrow, and continue in constant verdure winter and summer, and the branches are covered with a cloud which is never dispelled, but, resolving itself into a moisture, causes to fall from its leaves a very clear water in such abundance that cisterns placed at its foot to receive it are never empty.

It is said that of the nineteen million acres of land in the State of South Carolina, only one-fourth is under cultivation. The remainder, some 14,500,000, is mainly in primeval forest. Fully half of the 4,500,000 now under quasi cultivation is for sale, some of it even so low as \$1 per acre, and ranging from that up to \$20.

**EXTRAORDINARY PIG.**—Perhaps one of the largest pigs in England, if not in the world, is now the property of Mr. Lloyd, of Bredon, Worcestershire, who purchased it of a neighbor, when two months old, at 17s 6d. This wonderful animal is now 22 months old, measures 9 feet 6 inches from the end of nose to the tip of the tail, five feet round the neck, nearly 9 feet round the body, and stands 4 feet high.—[Mark Lane Express.]

**Bees.****WINTERING BEES.**

In passing through the country during the past month we have seen a large number of hives remaining on their summer stands. Some were unprotected while others had simply a board or two leaning against the hive to shield them from the wintry blasts! Some farmers pay attention to their hives only when they wish to spoil them of their honey which they often do with an unsparing hand. They have no system and take what they want without regard to the requirements of the colony. The result is that bees are often condemned as tender and difficult to rear, whereas the fact is they have been left unprotected and consequently frozen to death or starved by being robbed of their winter stores. Believing that this inattention arises more from lack of information than design we have condensed from our exchanges the following items and trust they will be instructive to our readers:

**How a Family of Bees Winter.**

A family of bees, at the approach of cold weather, crowd together in a globular form, to economize the animal heat. If the cold is intense, they pack the closer. Then, suppose all the honey in the vicinity of the cluster of bees has been exhausted, and all the combs are covered over with frost, and we have a long and severe cold spell, is it not certain

that if any bees leave the mass, and venture among the combs for a supply of honey, their fate is certain death?

**Out Doors.**

Our rules for the safe wintering of bees are: 1. Allow every colony that is to be wintered out of doors at least 25 lbs of honey in lives 1st of November. 2. A cluster of bees sufficiently large to extend at least through two thirds of the comb in any ordinary hive. 3. One or two inch holes to be left open in the top of the hive under the cap or cover. 4. If the hive be shallow, winter passages or holes through all the combs, to enable the bees to reach their stores by a "short cut" in very cold weather without passing over frosty combs. Honey will not benefit bees if it is where they cannot get it without freezing. 5. Some protection for the hives, sufficient to prevent the sun striking them in warm days—which excites the bees and draws them out of the hive, when many perish. A few boards set up in front, or a little corn fodder placed around them, answers a very good purpose—the idea being not to protect them from the cold but from the sun.

**Wintering Bees in Cellars.**

Although this plan may have some objections, yet they are not so serious as the others. It is to be preferred to the other two, provided we have a suitable cellar. The cellar should be dry, dark and well ventilated. The temperature should be kept as near 36 degrees as possible. The hives should be elevated some distance from the floor, so they will not receive any dampness from the bottom of the cellar. The hives should have proper ventilation, if the box hive, bore a hole or two in the top, and cover over with wire cloth.

Mr. Cary, in the American Bee Journal, says the advantages of wintering in the cellar are, that one half less honey is consumed than when wintered in an unprotected place; and if properly cared for, no swarms are lost, and but few bees die.

**How much Honey to Winter a Swarm of Bees.**

A correspondent of the American Bee Journal in the December numbers of that excellent publication says:

My bees are wintered in a room about ten feet square in the second story of a large building. The room is double-boarded with a space of four inches between, filled with tan. Ventilators are so arranged as to be controlled from the outside, without entering the room.

November 27, 1861, bees were weighed and housed for the winter. March 9, 1862, they were carried out and placed on their summer stands. March 12, weighed again. Average loss, per swarm, in 105 days, 10 1-10 lbs.; greatest loss, 15 lbs.; least loss, 6 lbs.; average daily loss, per swarm, 1 1-2 oz. April 12, weighed again. Average loss, per swarm, in 31 days, 4 lbs. 13 oz.; average daily consumption, per swarm, 2 1-2 oz.

December 2, 1863, weighed and carried in bees. March 5, carried them out. Weighed again March 11. Average loss, 10 lbs. 3 oz. in 99 days; greatest loss, 16 lbs.; least loss, 8 lbs.; average daily loss, about 1 1/2 oz. Weighed again April 9. Average loss in 29 days, 4 lbs.; average daily loss, about 2 1/2 oz. Previous to the last weighing they were fed freely with rye meal, and carried in perhaps one pound per swarm, which would make the loss 5 lbs. instead of 4 lbs.

About the 20th of February, 1867, I weighed three swarms, which had been housed from early December. They had become only about three pounds lighter, each. They were young swarms, and rather below medium.

**GETTING MEASURED FOR BOOTS OR SHOES**—We don't know who says this, neither have we tried the experiment to know whether to recommend it, but it looks reasonable that boots or shoes made after this plan of cutting would not cause the wearer any uncomfotableness.

"If you want a shoe to fit you comfortably, next time you are measured for a pair, stand upon a piece of paper, and get the shoemaker to trace with a pencil the outline of each foot, we say, because two feet are never alike in size and shape, though they belong to the same person. They are more than right and left—they are unlike. Don't suppose that you can be measured for a pair by the most careful measurement of one. Insist on having the outlines as well as the girth and length of each foot taken, and then, if the shoemaker is an honest man, he will send home a pair boots which with their turned-in-toes, will look unpromising enough when off, but when once on, will prove not only the most becoming, but the most comfortable you ever wore."

**GOOD ROLLS.**—The famous Parker House Rolls are made in the following described manner: Make a hole in two quarts of flour, and pour in one pint of curd milk, that has been boiled, with a cup of butter melted in it. Add a quarter of a cup of sugar, and half a cup of good yeast. Let it stand without mixing two or three hours. Salt to taste. Then kneed it, and set it to rise a few hours; then mould it, and rise again in the pans before baking. The rolls require about fifteen minutes to bake in a quick oven.

The ponies or horses peculiar to China are used only for riding, and by mandarins when upon official business. All agricultural work, plowing, irrigating and working of rice mills, is said to be done by the buffalo.

**BREAD PUDDING.**—One pint of grated bread crumbs, one quart of milk, yolk of six eggs, one grated lemon, and sugar to taste. Bake.

The tree planting committee of Guelph, report that they have spent \$221 in that praiseworthy undertaking.

An enormous business is done in the States, in gathering corn husks, which are used in the manufacture of mattresses. Hacked husks delivered in Boston, are worth over \$30 per ton.

The owner of a model farm in Pennsylvania, killed out the Canada Thistle by digging down with a hoe and cutting off the roots several inches below the surface. After being set back in this way for two of three times, the root loses all enterprise, and dies.

A fellow was detected at Ipswich, Mass., in weighing in a load of hay he was selling, four hundred pounds of iron, which of course he meant to smuggle out of the way before the hay was delivered.

## Correspondence.

To the Editor of the Farmer's Advocate.

### CANADA.

And this is Canada! the land,  
Where rumour rears the great and grand,  
The land of deep, dark, desert woods,  
Of broad bright lakes, and foaming floods;  
The land where once in ages wild,  
Roamed natures generous untaught child;  
The destined land in times to come,  
Of mankind and of freedom's home.

The borders of the ocean lakes,  
Erewhile bisprent with rugged brakes,  
And marches where were heard to float,  
The echo's of the bullfrog's note,  
Or pathless, stunless, thickets where  
The growling wolf and grizzly bear,  
Oft sought their secret hiding place,  
To shun the hardy huntsman's chase,  
Now graced with spires and villas grand  
Give promise of a prosperous land,  
Whose infant cities hold to view  
The feats that science dares to do.

Or where the Ottawa's Chaudiere  
Foams headlong down her dread career,  
Every there has art presumed to swing  
A pathway o'er the appalling thing,

To trace on earth and air and water,  
The mighty power of mind o'er matter,  
And soon as man's contentions cease,  
And earth becomes the home of peace,  
Proud minds shall fling her rays abroad  
As emblems of her Father God.

Then on thy wavy waters blue  
Where leaps the dizzy bark canoe,  
With snowy sails set to the breeze.  
Shall commerce ride thy inland seas,  
To bear thy surplus treasures hence,  
To lands less blest by Providence.  
Yes Canada! thou art the clime  
Of promise for a coming time,  
A land where man may find a cure,  
For half the ills mankind endure.

For thou as other lands grow worse,  
Art still the land of blest resource,  
And lavish nature seems in thee,  
To sport in vast immensity.  
Thy streams are rivers, and thy groves,  
Are forests, where the moose deer roves;  
Thy rivers are like lakes, thy lakes  
Are seas—where the great billow breaks,  
And foams white as the ocean wave—  
Thy tempests do not howl, but rave  
Like maddened fury—till the wood  
Bends neath its rage—trees that have stood  
A thousand winters, are lurled forth,  
And strewed in fragments o'er the earth,  
Thy fork'd and sheety lightning's blaze  
Like the last conflagrations rays,  
And thy terrific thunders roar,  
As if the mighty angel swore,  
That earth and time should be no more.

Thy very soil seems limitless!  
Thy boundary lines are but a guess.  
Kingdoms and states of other lands,  
Are patches gaged by human hands;  
But line nor chain o'er measured thee  
Thou art as nature bade thee be.

For the Farmer's Advocate.

### LITTLE GIANT THRESHER.

I have much pleasure in testifying to the general efficiency of the small Giant Threshing Machine Separator. I believe I attended the first Threshing Machines that crossed the lines into Canada, in 1834. I have worked and seen worked, mostly all of the Separators which are made and used in the Province, and am therefore competent to give an opinion as to the merits of the different Machines.

For my own use I would not exchange my Little Giant, "The New Dominion," for any I have seen. I can thresh with it (under favorable circumstances) from 250 to 300 bushels of wheat per day. An ordinary day's work would be about 200 bushels. Of oats I could hardly say the quantity. It would nearly keep two men busy carrying them away.

It can be worked easily with six horses and can do a nice day's work with four. The grain is left fully better and cleaner than with an ordinary Separator. Oats are cleaned by this Machine fit for market.

There are no sieves, canvass nor elevators to get out of order.

Indeed a more simple, compact and durable machine cannot be made. They are just the thing for a farmer's own use.

am yours truly,  
ROBERT COULTER.

For the Farmer's Advocate

### WHO WOULD NOT BE A FARMER?

O! who would not be a farmer,  
A follower of the plow;  
A reaper of those bounteous gifts,  
Which nature's God bestows.

No dread of sheriff's calls has he,  
Of lawyers bills no fear;  
No bowing down to creditors,  
But independent his career.

SOUTH MONAGHAN.

To the Editor of the Farmer's Advocate.

### HOW TO PRUNE GRAPE VINES.

1st. *Winter Pruning* is to be done in the Fall if the varieties are tender before laying them down; but if hardy, any time during the winter before the sap flows in the Spring. Shorten all leaders back to a strong bud,—take off all spurs, and all the dead wood, and all old bark, as insects deposit their eggs underneath.

2nd. *Pruning* is to be done in the Spring. When the young shoots (which are called leaders) have made from ten to twelve joints, shorten every alternate one back to one leaf beyond the last bunch of fruit. Be sure to leave all the leaves and tendrils on, as they constitute the lungs of the vine. The remaining shoots or leaders may be trained in provided there is room for that purpose—if not take them out, close to the old cane. The proper time for this pruning is from the 1st week in June to the 1st week in July, according to the season.

3rd. *Pruning* will be to shorten all laterals or side shoots back to one joint from the leader, leaving one leaf. This small part of the lateral is called the 1st spur. This pruning should be done from the middle of July to the 1st of August.

4th. *Pruning* is to shorten all 2nd. laterals back to one joint from the 1st spur, leaving a leaf on it as well—then you will have three leaves—that is, the leader leaf, 1st spur leaf, and 2nd. spur leaf, which must not be touched. This pruning should be done from the latter end of August to the beginning of September. There are extra prunings required in Vineries and occasionally in other places where vines are very thrifty, which must be done in a similar manner to the third and fourth pruning.

### HOW TO PRUNE RED AND WHITE CURRANTS.

To make them extra fruitful, thrifty and longer lived one pruning every year is necessary, which should be done in the winter season. Shorten every young shoot on the bush back to two or three buds from the old wood, and let the cut be close to the last bud. Take out all dead wood; balance your tree, and if not all on one stock thin some of the weak suckers out.

**HOW TO PRUNE BLACK CURRANTS.**—Shorten every young shoot one or two buds back, as black currants always fruit on the young wood. By so doing it always encourages the growth of young wood, and makes the fruit and trees better and healthier. Gooseberries are pruned in like manner.

CHAS. BAKER,  
Landscape Gardener and Nursery Man.

## SEED GRAIN FOR SALE.

1 lb. Quebec Wheat, sent post paid....	25c.
1 lb. China Tea.....	20c.
1 lb. Michigan Midge Proof.....	20c.
1 lb. Rio Grande.....	15c.
1 lb. Black Sea.....	15c.
1 lb. Fife.....	15c.
1 lb. Platte's Midge Proof.....	15c.
1 lb. Crown Peas.....	15c.
We will send these Peas per Rail or Express, at \$4 for two bush., inclusive of bag. Large orders at lower rates.	
1 lb. Black-eyed Marrow-fat.....	15c.
1 lb. Prussian Blue.....	15c.
1 lb. Golden Vine.....	15c.
1 lb. Westwell Oats.....	15c.
1 lb. Emporium do.....	15c.
1 lb. English Barley.....	15c.
1 lb. Bald Barley.....	15c.

The above grains will be put up in cotton bags to mail safely. This will afford an opportunity to persons in any part of the Dominion, to test what kind of grain will be most suitable for their locality. Common seed, as procured in any market in Canada, can be supplied in quantities at a small advance on cost. A large list will appear in March number. Letters sent to be pre-paid, and should contain stamp if reply is required. Address Wm. Weld, London.

## CITY HOTEL,

CORNER Dundas and Talbot streets, (Market Square) London Ont. J. & T. MOSSOP, Proprietors. Best Stabling in the Dominion, and attentive Hostlers and the best accommodation.

Woodbridge Agricultural Works,  
**ABELL'S**  
CELEBRATED

## IMPROVED GRAIN CRUSHER

NO APOLOGY is necessary for this class of machinery, nor is the value and importance of crushing, bruising or splitting all kinds of grain, before it is given to horses, cattle, or pigs, a disputed question. These mills are prepared with a view to economy. They are strong, simple, useful, and thoroughly good, both in principle and workmanship, and are capable of crushing oats, barley, peas, or small grain of any kind. They have two rollers, finely grooved by machinery; one roller travelling faster than the other, causing a grinding motion. They are set to grind coarse or fine by means of an adjusting screw. The feed roller is exactly adapted to supply the crushing rollers, and is easily arranged to give the rollers full work without the fear of being choked. Their action is perfect and the arrangement most convenient. With the aid of improved machinery, for Letters Patent, I have been enabled to considerably reduce the price of this machine: in so doing, however, their high character for material and workmanship is maintained. Capacity, from 40 to 60 bushels per hour. I manufacture three sizes of the Grain Crusher, prices are \$30 \$35 \$40. For other information send for my illustrated catalogue.

JOHN ABELL, Woodbridge, Ont.  
Or apply to W. Weld, agent, London.

EARLY ROSE, EARLY GOODRICH & HARRISON  
**Seed Potatoes, for Sale.**

EARLY Rose, per lb., \$1. Early Goodrich, per bush. \$5, per bush. \$2, per peck 75c. Harrison, per bush. \$6, per bush. \$2 per peck 75c. All orders accompanied by cash will be booked in the order they are received, and will ship as desired as soon as the season will admit of.

J. H. & W. PECK  
Albury P.O.  
3 in u-p. Co. Prince, Edward, Ont.

## FOR SALE.

ONE Durham bull calf, aged eight months, color roan. Pedigree furnished, price \$50.  
apply to D. BEATTIE, Westminster, London, P.O.

## JOHN ELLIOTT,

PHOENIX Foundry, London, manufacturer of Reaping Machines, Threshing Machines, Lap Furrow Ploughs, Cultivators, Guage Ploughs, &c. 1-c.

## SEED POTATOES

Early Goodrich, Gleason, Cusco, and Calico.

## PRICE:

Fifty cents per half peck.  
Seventy-five cents per peck.  
Two dollars and fifty cents per bushel.

Or for \$1 I will send to any address,

One lb. Harrison, One lb. Cusco, One lb. Calico, One lb. Gleason and four lbs. Early Goodrich.

delivered at the express office or Railroad Station in London, without charge.

Address, JOHN MCKENZIE,  
Lambeth, near London Ont.

TO TRAPPERS, HUNTERS  
SPORTSMEN &C,

THE subscriber offers to furnish to Trappers, Hunters, and Sportsmen, a valuable set of printed Receipts for scenting, baiting, trapping and catching the Fox, Wolf, Beaver, Otter, Fisher, Martin and Mink, for the sum of one dollar. Sent by mail paid and registered. These receipts are the combined experience of the best Trappers in the world. The modes for setting the traps are plainly explained. The scent for the Fox, Wolf, Otter and Mink, will draw them a long distance. receipts sent promptly to all who apply.

Address, P. PENNOCK,  
Elgin P.O. Leeds County, Ont.

## SAWS GUMMED.

ALL kinds of Saws Filed, set, re-cut or gummed. Rose's Patent Queen Saws, always on hand. Patent Cross-cut Saw Handles for sale, wholesale and retail.  
A. WESTMAN,  
Dundas street, second door east of Talbot street, next door to R. S. Murray's.

## EXTENSIVE SALE OF THOROUGH BRED

## Cattle and Sheep.

TO be sold by Public Auction on Lot No. 16, 10th con. Markham, on Wednesday, February 3rd, 1889, the following valuable stock, belonging to George Miller, Esquire.

TEN SHORT-HORN BULLS.—Two Bulls, two years old, color red. Eight yearling Bulls, red and roan, sired by Bell, Duke of Oxford, (330) Canada Herd Book.

SHORT-HORN COWS AND HEIFERS.—Ten cows and Heifers, either in calf or calf by their sides.

Herd Book Pedigrees will be furnished to all the above animals on day of sale. Any person wishing a good young Bull, will do well to attend, as they are a superior lot.

SHEEP.—Twelve Cotswold Ewes, in lamb. Eight Leicester Ewes, in lamb. Sixteen Shropshire Ewes, in lamb. The above Sheep are imported, or from imported stock.

The above stock is to be sold without reserve, as Mr. Miller is compelled to relinquish farming on account of blindness. Further particulars may be had on application.

Markham Village is twenty miles from Toronto, and ten miles from Scarboro' Station, Grand Trunk Railroad. A stage runs daily from Toronto to Markham. There will be teams at the village, on the evening previous to the sale, to convey parties from a distance.

TERMS.—Eight months' credit will be given, by furnishing approved joint notes.  
Sale to commence at ten o'clock in the forenoon.

J. M. COUSINS, LONDON, ONT.

MANUFACTURER OF

## Self-Acting Cattle Pumps,

COMMON PUMPS, FANNING Mills and Straw Cutters. 1-c.

TEALE AND WILKENS  
MARBLE CUTTERS

DUNDAS STREET LONDON, ONT.

## FOR SALE.

HEREFORD Bull, Victor, Red with white face, Calved 10th Aug. 1865, bred by F. W. Stone Esq., Sired by Guelph (2023.) Dam, Verbena, imported by Carlisle, (923), G. D. Flower by Radner, G. G. Dam, Old Fancy, bred by Mr. Galliers, also two Galloway bulls aged 20 months.

R. L. DENISON,  
Dover Court, Toronto.

## DUNCAN'S PATENT SINGLE BARBED

## Horse Hay Fork,

WITH

## HAMMOND'S IMPROVEMENT

THESE Forks have now been tested with other Hay Forks in this vicinity, and have been found preferable to them. They are highly useful and a great labor-saving implement. They are strongly made and nothing about them is liable to get out of order. The price of fork alone, \$5, with three blocks 63 feet of rope ready for use, \$10.50.

Address, JAS. HAMMOND,  
Hammond P.O.

## W. BAWDEN,

AUCTIONEER, Land, House and general Agent.  
Office Talbot St., London, Ont.

## Jas. FERGUSON &amp; Co.,

PORK Packers, King Street, London, Ont. Highest Cash Price paid for Pork alive or dressed.

Manufacturers of Mess and Prime Pork,

BACON, SHOULDERS, LARD, &C.

Hams and Shoulders Sugar-Cured,  
And cured in all other forms.

## D. DARVILL,

DEALER IN

## FARM IMPLEMENTS,

MACHINE OIL, &c.

SAWING and all kinds of Machines sold and made to order. Talbot Street, opposite the Market, London, Ontario.

## THE CELEBRATED VOLTAIC CURE

WITHOUT MEDICINE,

FOR Neuralgia, Rheumatism and all Nervous Diseases. Dr. Hall's Voltaic Armor Bands and Shoes. A scientific and rational method of curing all diseases originating in a disturbed condition of the electrical or Vitalizing forces of the body; such as Cold Feet, Nervous Headache, Rheumatism, Neuralgia, Dyspepsia, Paralysis, St. Vitus Dance, Fits, Cramps, Weak Joints, Sciatica, Contracted Sinews, Sprains, Hip Complaints, Spinal Affections, and all Nervous disorders. These Electrical appliances can be depended on as a remedial agent of positive reliability in all such complaints, and will save thousands from complicating their afflictions by resorting to injurious remedies and improper applications. The Voltaic Armor Soles and Bands are made on the principal of the Voltaic Pile, and being perfectly flexible, can be worn under the feet or on any part of the body without the least inconvenience. They restore the equilibrium of Electric action in the system, and impart life and vigor to every organ of the body. For restoring Exhausted Vital Energy, and in all diseases having their origin in the loss of vital power, through excesses, sedentary habits, and the use of powerful and pernicious drugs, the Armor may be used with the fullest assurance of success. E. Plummer & Co., Agents for London; Geo. H. Denison, sole agent for Canada, on Clarence Street near Dundas, London, Ont.  
Send for a circular, or call when you come to town

## TO STUDENTS.—A BARGAIN.

THE undersigned has for sale a Scholarship in DAY'S COMMERCIAL COLLEGE, Toronto. It will be sold at a discount as the owner is not in a position to use it himself. Also for sale, Scrip of the British American Commercial College.

ALEX CHRISTIE,  
34 King Street East.

LADIES AND GENTLEMEN EMPLOYED—Picture business. Very profitable. No risk. Seventeen specimen pictures and catalogues sent for 25 cents; twice as many, 30 cents.

MANSON LAING,  
No. 94, Columbia-st., N.Y.

**FRED. ROWLAND,  
GROCER PROVISION DEALER  
AND  
SEEDSMAN,**

**CORNER OF DUNDAS & RICHMOND STS., LONDON, ONTARIO.**

Clover Seed, Timothy Seed,  
Field Seeds, Garden Seeds,  
Seed Grain, Super-Phosphate,  
Land Plaster, Bone Dust.

THE FOURTH VOLUME OF THE  
**FARMERS' ADVOCATE**  
FOR 1869.

*This journal having met with such great encouragement from the practical men of the country, will be published at the usual cheap rate, and is to be vastly improved. An additional staff of able assistance is now engaged for the coming year, and we aim to make this journal the most valuable publication in Canada. To those wishing to procure or know about the best kinds of Stock, seeds or Implements, or to purchase or dispose of land, it is now unsurpassed, as it gives accounts of the Agricultural Emporium, where the trials are made and seed imported.*

*Terms post-paid, \$1 per annum in advance. In clubs of four or more, 75cts. Single copies 10cts, 12c per month if not paid in advance. To Agricultural Societies in Clubs of 50 60cts per annum. Advertisements for single animal, not more than five lines, 50cts! Agricultural advertisements on inside page, 10cts per line Agate space. Outside page, 20cts; specials 30cts; editorials 50cts. Agricultural correspondents find a free space in our paper and are requested to write. Every farmer should take the paper that advocates his interest.*

**TO THE TRADE.**

**W. W. KITCHEN'S  
PURE GRAPE WINE!**

PORT and Sherry—so well known for many years past, for which Diplomas were always given at previous Exhibitions—was awarded TWO SILVER MEDALS at the last Grand Exhibition.

**TERMS CASH, AT FOLLOWING PRICES:**

Port Wine, from Dark Grapes.....\$2.00 per gal.  
Sherry, from Delaware Grapes..... 3.00 "  
10 Gallons of either kind 15 percent. off.  
20 " " " 20 "  
40 " " " or over 25 " "

Call and examine W. W. Kitchen's Wine Cellars. From 15 to 20 thousand gallons constantly on hand. Over 6,000 gallons produced yearly. It is sold by most of the principal Grocers, Chemists, Physicians and Hotel Keepers in the Dominion. Also, in the season, a great quantity of

**PURE GRAPE VINES,**

Delaware, Concord, &c., at \$10 per hundred, \$30 per 1,000.

The above Goods will be sent as ordered on receipt of cash in registered letter, or by Express to C.O.D. Terms strictly Cash.

Address, **W. W. KITCHEN,  
Vine Grower,  
Grimsby, Ont.**

**TORONTO NURSERIES**

(Established 1840.)

**G. Leslie & Son**

PROPRIETORS.

**EXTENT 150 ACRES**

THE Stock embraces Trees, Plants, and Flowers of every description, suitable to the climate. Priced descriptive Catalogues sent to applicants enclosing a two cent stamp.

Address,  
**GEORGE LESLIE & SON,  
Toronto Nurseries, Leslie.**

SENT FREE! SENT FREE!

**M. O'KEEFE, SON & Co.'s  
CATALOGUE OF SEEDS,**

AND GUIDE TO THE

**FLOWER AND VEGETABLE  
GARDEN,**

For 1869.

M. O'KEEFE, SON, & Co., Seed Importers and Growers, Ellwanger and Barry Block, Rochester, New York.

**THE RURAL GENTLEMAN**

A monthly journal of Practical

*Horticulture, Agriculture and Rural Affairs*

EDITED by a Practical Horticulturist, with a Corps of able assistants and occasional Contributors.

**Terms: 1.00 a Year in Advance.**

Specimens by Mail 15 cents.

**CASH ADVERTISING RATES:**

Transient Advertisements 15 cents per line each insertion. Business announcements, 25 cents per line. Eight words constitute a line, solid measurement.

Quarter Page, 3 months \$15; 6m. \$25; 12m. \$40. Half Page, 3m. \$25; 6m. \$45; 12m. \$80. Whole Page, 3m. \$40; 6m. \$70; 12m. \$125.

Inside covers, and first and last inside advertising pages, \$150. Outside cover \$200.

**CANVASSERS WANTED EVERYWHERE,**

And inducements offered to make it pay those who will work. Address

**J. B. ROBINSON & Co.  
No. 2 N. Eufaw St. Baltimore, Md.**

**The Little Giant Straw Cutter,**

UNIVERSALLY admitted to be the best hand Cutting Box made. Always takes first prize. Manufactured by  
**J. M. COUSINS,  
Bathurst St. London, Ont**

**NOTICE.**

SEEING the requirements of the country of a reliable time table of all the railroads in Canada to facilitate persons wishing to travel by different lines, and at different times, we have now commenced the publication of the "Farmers' Advocate, Monthly Time Table," showing the monthly changes of all the railroads and of all the stations in Ontario. It is a large, handsome sheet. The price we supply them at, is 50cts. per annum, or 10cts. singly, addressed to any P.O. Send for one when you want to travel. Business men and hotels should subscribe for the annual sheets.

Address **W. WELD, London, Ont.**

**G. J. BAKER**

HAS invented a Machine that makes washing-day a pleasant pastime, instead of—THUMP, THUMP, SCOLD SCOLD, all the day as of old. It is pronounced the HOUSEKEEPER'S FRIEND AND UNIVERSAL FAVORITE, by all who have seen and used it. It is universally acknowledged that a good

**Washing Machine**

WITH A WRINGER COMBINED,

Will save two-thirds of the Labor, and make the clothes last more than twice as long as those done in the old style. The reason why G. J. Baker's Patent Washing Machine is Superior to all others, is, because it washes quicker and cleaner, and makes the clothing look whiter with less muss about the house than any other Machine in existence; thereby saving more than half the labor, half the fuel, and half the soap generally used—as a child twelve or fourteen years old can do more in two hours than a woman could do in half a day in the old way. See it and try it before you buy any other kind, as it is a machine that is easily worked, and less liable to get out of order than any other Machine now in use.

Oakville, Ont.

**STEEL AMALGAM BELLS**

ARE the cheapest, most durable and best toned. One thousand of our make are now in use in different parts of this Dominion, and are giving entire satisfaction. There is a lower-priced bell manufactured in the States, but our bells are found to be the cheapest, when compared in quality, durability and tone. We warrant them for one year.

**PRICE OF BELLS.**

No. 1 Bell 45 lbs. 25 inch diameter, \$10. No. 2, 55 lbs. 16 inches diameter, \$12. No. 3, 95 lbs. 19 inches diameter \$22. No. 4, 235 lbs. 26 inches diameter, \$60. No. 5, 300 lbs. 30 inches diameter, \$65. No. 6, 550 lbs. 36 inches diameter, \$120. Orders punctually attended to. Address

**JONES & Co.  
Markham, Ont.**

Sample bells may be seen at the Agricultural Emporium, London, Ont.

**PETER R. LAMB & CO.**

MANUFACTURERS OF

**Blacking, Water-Proof Leather Preserver, Harness Oil Blacking, Neat's Foot Oil, Glue, Superphosphate of Lime, for Manure, Ground Bone, for Manure, Ivory Black, Animal Charcoal.**

**LAMB'S SUPERPHOSPHATE OF LIME, \$40 PER TON.**

Put up in Barrels Containing about 200 lbs. each, and Warranted to equal any in the world.

WE desire to call special attention to our SUPER-PHOSPHATE OF LIME, a highly concentrated manure, manufactured from Bones and Animal matter, decomposed by the addition of Sulphuric Acid and Ammonical Liquor. It contains Bi-Phosphate and Neutral Phosphate of Lime in abundance, Sulphate and Carbonate of Ammonia, Carbonaceous substances and Nitrogenous Organic Matter, &c., gradually yielding Ammonia to the soil. Manufacturing it of the best materials and in the most approved manner, in contains in combination, all the ingredients necessary to the nutrition of plants and to the fertilization of Soils. We offer it with the utmost confidence as being fully equal, if not superior, to the best Peruvian Guano.

We warrant every barrel of our Super-Phosphate of Lime to maintain the standard of analysis, and to be free from the admixture of Gypsum, or any cheap substance whereby the weight may be increased to the injury of the Farmer or Gardener, who, paying for a concentrated manure, expects to receive the benefits of such, but often finds to his cost that he has bought a worthless article, manufactured by Speculators under the name of Super-Phosphate, but which contains little or none of the Phosphates being merely a mixture of Gypsum with other cheap and weak manure, which does not nourish the soil, but, from their stimulating nature, produces exhaustion of the land.

**Lamb's Super-Phosphate of Lime**

Matures crops from ten to twenty days earlier, and increases the yield one hundred per cent. It gives Wheat, Rye, Barley, Oats, &c., a firm stalk, and produces a large head and plump kernel. To Tobacco growers it is invaluable, giving a large, well-developed leaf, and protecting it from the worm. Pushing Onions into vigorous growth increases the yield and prevents the attack of the maggot, so injurious to this plant.

It must be remembered that our Super-Phosphate is a concentrated and active manure: it should, therefore, be incorporated with the soil, or scattered around growing plants, but on no account to come directly in contact with the seed or young plant.

FINE BONE DUST  
HALF INCH BONE DUST

\$27 PER TON  
\$22 PER TON

No charge for Barrels and delivered free at the Railway Station in Toronto.

**TERMS CASH, TO ACCOMPANY ALL ORDERS.**

W. WELD, Agent, London.

(3m p)

PETER R. LAMB, & Co., Manufacturers, Toronto.

**AGRICULTURAL EMPORIUM PRICES FOR IMPLEMENTS.**

Little Giant Threshing Machine.....	\$105
Horse Power, Band Wheel and Belt, Sixty feet.....	80
Small Horse Power for four or six Horses.....	65
Empire, First prize Grain Drill with ten Spouts.....	70
do. do. do. do. do. nine Spouts.....	65
do. do. do. do. do. ten Spouts with Grass Seed Attachment.....	75
do. do. do. do. do. ten Spouts do do and Land Measurer.....	80
Paris Patern Second Prize Grain Drill, ten Spouts.....	80
do. do. do. do. do. do. eight Spouts.....	70
Grass Seed Attachment for it.....	5
The Abel Feed Mill.....	\$30 \$35 and 40
Gardener's Patent Root Cutter.....	28
Fleurey's Root Cutter.....	15
The Utica Corn Sheller.....	10
The Little Giant Corn Sheller, prices reduced.....	4

The above implements may be shipped on board the cars, at the factories, for any station in Canada. Send in your orders early if you do not wish to be disappointed. Orders for any of the above articles may be addressed to W. Weld, London, or to C. Daw urn Toronto, as we have now formed a connection with the above well known firm of that city, and intend opening establishments in other places.

**List of Prizes to be Awarded for Getting up clubs for the Farmers' Advocate,**

**LIST OF SUBSCRIBERS TO BE RETURNED BY THE 25th OF THIS MONTH.**

1st Prize. The Empire Seed Drill with Land Measurer and Seed Grain Attachment. This prize will not be awarded unless \$80 are sent in. This prize is presented by Messrs. Maxwell and Whitelaw of Paris.  
2nd. Prize. Five lbs. of Early Rose Potatoes, Given by Mr. McKenzie of Westminster, \$5  
Prizes to all that get up a club of over four, at 75cts each, one packet of any of the following varieties of seeds or plants. Quebec Wheat, Crown Peas, Norway Oats, Australian Potatoes, White Bald English Barley, New Jersey Corn, Alsike Clover, or the choice of nearly Two Hundred varieties of Seeds and Plants, that will be published in next month's number. For the best kinds be sure and see the March number. All seeds thus given, will be sent to any part of the Dominion by post, free. Notice on previous part of this paper, the prizes that have already been awarded and sent this year  
Persons having any really good seed grain, are requested to send samples, and state price and quantity.

LANDS FOR SALE - E. 1/4 of lot 24, 14th. con. Aldboro' 50 acres, unimproved. S. 1/2 of lot 26, 1st. con. Mosa, 100 acres, unimproved. Lot 37, con. B, Westminster, good brick house &c., 30 acres, good cultivation. S. 1/4 of lot 45, 1st con. Westminster, good house &c. 100 acres, good cultivation. Steam Saw Mill near Otterville, engine &c., good lumber stand. CITY PROPERTY. - Frame Cottage near Westminster Bridge, eight rooms, Garden, Lawn, Croquet Ground, &c., to be sold cheap. Frame House on Horton street, six bedrooms, pantry, cellar, &c., with garden and fruit trees. Horton street, corner lot, two frontages with Curriers shop facing the River. A press of matter compels us to take out our extensive Land List of 20,000 acres, this month. Parties in want of land should subscribe for the paper, and see the January number, or else remit ten cents for single copy, postage free.