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"THE BEST AGRICULTURAL JOURNAL IN CANADA."



—AND—

HOME MAGAZINE,

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FOR 1884.

VOLUME XIX.

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EDITOR AND PROPRIETOR.

OFFICE--360 Richmond St., East Side.

LONDON, ONTARIO, CANADA.



### Editorial.

#### Manitoba.

Great dissatisfaction exists among some of the inhabitants of Manitoba and the Northwest. This is not to be wondered at after the inflation which existed subsided, speculators and others are feeling the reaction. The rash and imprudent are ever ready to lead onward any cause, no matter what the result, so long as they are able to put their hands on more cash. We have previously spoken of the inefficiency of some of the officials in Manitoba in dealing out justice to settlers. Years ago, when we made our first trip to that part of the country, our remarks were then treated with disdain, and pronounced to be untruthful by some who knew to the contrary. It is very difficult to govern so vast a domain as ours; the interests of different localities being so diversified, that they frequently clash. No doubt the heavy custom duties are grievous to the residents of our Northwest, and the farmers are quite right in ventilating their grievances and laying their complaints before the authorities in a proper manner. But when they obtain rampant agitators to harrange them with disloyal speeches and threats of secession, as well as demanding the lands from the railway companies, from the sale of which these companies expect to recoup themselves for the outlay in constructing the roads. We think that they are exceeding the bounds of moderation. Fair railroad rates and just treatment the farmers have a right to expect. But who made these railways which have helped so much to develop the country? Probably not these agitators, who pretend to be working for the farmer's interest, but whose object is *self*.

#### Contagious Stock Diseases.

Many years ago, when the foot and mouth disease was introduced in Canada, we telegraphed the information to the proper authorities, and the existence of the disease was denied by the Government authorities, through the political papers, and our reputation and veracity assailed. When we saw hogs dying from cholera, we also gave notice in the proper quarter, but the facts were suppressed by the authorities. When cattle were dying from Anthrax, and hundreds were being swept away by the disease, the authorities had to expend large sums to check it. When we drew attention to the deficient state of the quarantine at Point Levis, Quebec, the Government took steps for its improvement. When we called attention to an animal suffering from disease in the quarantine at Point Edward, no information was furnished us as to what became of the animal. Again, when we gave an account of the death of a large flock of sheep in Goderich, no information was given either of the cause or remedy. And when in August last we gave the information that thirty-five lambs had died from a disease which existed at the Model Farm, Guelph, a paid Government official gave notice in a political paper that the information was *untrue*. Farmers, the statements we made were facts, and we believe we have been only doing our duty to you in expending money in travelling all over the country in quest of information

which, we consider, ought to save you millions of dollars. Who can estimate the extent of injury to a country when contagious disease once gets a foot hold? For nearly twenty years we have stood alone fighting your cause, without either political party acknowledging the service, although many of the members of the same were cognizant of the truths we have stated. In fact, some had lost stock from the diseases, and yet allowed falsehoods to go unchallenged. But we feel encouraged in our endeavors by the kindly letters received from our numerous subscribers.

The important letter signed "OXFORD FARMER," which appears in another part of this issue, informs us of what we were not previously aware of, and which, if correct—and we fear it is—we have SHEEP ROT now spreading in our Dominion. This is much to be regretted, as we have known many wealthy farmers to be reduced to poverty by this disease spreading among their flocks, and should teach us to be very careful about introducing the disease to farms not yet infected.

#### On the Wing.

##### FAT STOCK EXHIBITIONS.

The past year has been remarkable for the rapid increase of Fat Stock exhibitions, several new ones have sprung into life in Ontario, and the probabilities are that they will increase in number in the future, is most probable. As many breeders are of opinion that the shambles are the best places to decide which is the most useful breed of meat producing animals, and that these fat stock exhibitions are of more importance in deciding the question than the spring or autumn fairs. A strong feeling of rivalry exists between the owners of the different breeds, and of the different families in each breed. The breeders of several classes have their combinations for the special purpose of advancing the interest of such particular breeds, and leave no stone unturned to accomplish their purpose. The past decade has been the Shorthorn era; these fine docile animals stand at the head of all the bovine races, and are destined to hold their high position, at every show of farm stock they predominate.

The fat stock exhibitions are now principally under the control of those interested in the welfare of the Shorthorn class, and the stock departments and prize lists at our principal fairs are also in a great measure controlled by them. The Government Herd Book has been manipulated by the same parties. When men gain too much power history shows that revolts arise and they are supplanted by others. The Shorthorn cattle are so valuable to the country that we think that no mismanagement can ever depreciate the real merits of this class, but such is the influence of the Shorthorn combination, that the breeders of other classes of cattle begin to open their eyes. Facts tell more than words. The Devons, the Ayrshires, the Galloways and the Herefords were formerly to be seen at our fairs in large numbers, but now at the fat stock shows in Canada no other animals but the Durhams or their grades are to be seen. The before mentioned classes when we first came to this country were about as numerous as the

Shorthorns, and were used for beef making purposes. The beef from some of the other classes may not weigh as heavy as that of the Durhams, although it is claimed for some that they produce meat of a better quality. The breeders of other classes complain that their interests are and have been greatly injured by the Government expenditures in fostering the Durham class, as they the breeders claim that the Shorthorns are adapted only to the richer lands of the Dominion, and a profit could be derived from half of the land in Canada by keeping other breeds, and that loss is sure to follow the introduction of either Durham bulls or cows into some parts of the country, and that animals of the lighter and more active classes will thrive where the Shorthorns would starve.

In the neighborhood of Guelph and other places where fat stock exhibits are held, and where private interests are only used, and one class of cattle predominate, the directors have a right to act as they choose, but as soon as Government money is used, as in Toronto exhibit, then each class should receive encouragement. The breeders of other classes than the Durhams consider they are being taxed and the money devoted to the injury of themselves, and some of the more thoughtful express themselves that they consider the Government Agricultural expenditures are not as conducive to the general welfare as private enterprise, being often used to suppress rather than encourage the latter, as every party paper will defend the acts of a Government, and decry any enterprise, no matter how beneficial it may be, if not under the control of their particular party; and the majority of the recipients of Government monies will also use their influence and employ every means to support their party.

##### THE GUELPH FAT STOCK MARKET

was held in that city on the 12th and 13th Dec., many hundreds of really fine beef animals changed hands. This is the largest and best fat stock market in Canada. The farmers in this locality have made beef raising a speciality. More turnips and roots are grown in this neighborhood than in any other part of the continent.

The farmers in the vicinity of Guelph have also a fat stock show, which has been established for some years. The exhibit was held as usual in the spacious drill shed, near the market. A remarkably fine display of cattle was made, and some of the prizes were strongly contested. Many of the farmers around Guelph feel aggrieved at the Torontonians getting the aid of the Government to establish what these farmers consider as a rival exhibition, and say that as Guelph is the centre of the beef producing country, and they have by their own exertions established and successfully held fat stock shows, that they should have been encouraged instead of being opposed by expenditures from the Government exchequer.

##### THE OXFORD COUNTY FAT STOCK CLUB.

The Oxford County Fat Stock Club held their meeting at Woodstock during the holding of the one at Guelph. At this show a lot of fine animals were exhibited, which otherwise would have been shown at Guelph.

The centre of attraction of the fat stock

exhibitions was this year at the

TORONTO FAT STOCK SHOW, held under the auspices of the Agricultural and Arts Association, on the 14th and 15th of December. We have never seen in Canada such a fine lot of extra fat beefing animals assembled together. The accommodation for receiving and exhibiting the animals was undoubtedly very inferior. The Association expected to have been able to secure one of the skating rinks or the drill shed, but unfortunately were unable to do so. The judges, except in one instance, gave general satisfaction, and this case caused considerable discussion among the spectators, who frequently know as much about the animals as the judges appointed, but no set of men can exactly agree. The most astonishing feature of the exhibit was the fact that, despite the much lauded experience of the English, Scotch, Canadian and American farmers, and the care of the Irish, the Germans, whose names have hardly been mentioned in the Shorthorn records, brought to the show 36 head of fine fat cattle, principally bred and fed by themselves. They made a complete raid upon the prize list, leaving but a few second and third prizes to be taken by our old breeders and feeders. We might just as well admit the fact, and call this the Groff Exhibition of Fat Stock, for the honors awarded to others were so few in number, compared to those carried off by Messrs. Groff, to whom no favoritism was shown, they obtaining the prizes by pure merit. This is all the more creditable, from the fact that the Groff Bros. are not only very young in years, but are also very young at the business. It will be remembered that at the Chicago Fat Stock Show of 1882, it was generally admitted that the grand sweepstakes prize should have been awarded to these gentlemen. It was noticeable that at this, the Government exhibition, no beefing class was shown but Shorthorns. The exhibit of sheep was small, and that of pigs still more so. There was a fair display of poultry. The

SHORTHORN ASSOCIATION'S FIRST ANNUAL SALE

was held a short distance from the exhibition at Toronto, on the 14th and 15th December. The attendance of those who sent stock for sale was large, but purchasers were absent. The sale was honorably conducted in regard to the bidding, but the prices realized were not satisfactory to vendors. There seems to be an unusual dulness in the sale of Durhams this fall. Doubtless this can be attributed to the failure of the wheat, corn, clover, and other crops last season, causing farmers to act with greater caution in making purchases. We have heard that the Government is to be asked to vote a large sum of money for the purpose of sending to Europe to purchase more Shorthorns and other stock. We contend that the expense of such a trip is totally unnecessary, but if it is considered desirable to expend money for the purchase of stock, the money could be spent to a greater advantage by purchasing good animals from our own breeders, who now have

better animals than the Government are likely to import. Canadians own just as good animals as can be purchased outside of the Dominion, beside which there is much less probability of introducing or spreading contagious diseases in the country.

#### BEEES.

We are very fond of bees, and love to sit beside a hive and see the industrious creatures bearing home their treasures. When the labor on this journal became so heavy that it necessitated us leaving our farm, so fond were we of bees that we tried to keep them in the city, but they soon found an easier way of procuring honey than by their usual hard work. They invaded, in such numbers, a candy factory close to our residence, that the work people killed them by the thousand, besides getting into the pots and pans, they did worse, they waged war with the girls engaged in packing

Provincial Fair at Guelph, we noticed that Mr. G. B. Jones, of Brantford, obtained the following prizes:

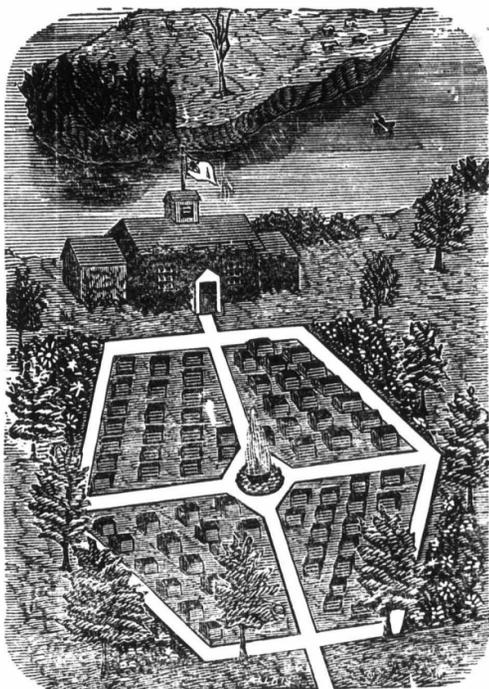
Silver medal for the best bee-keepers supplies.  
Bronze medal for best honey extractor.  
Bronze medal for best wax extractor.  
1st prize for best bee hive.  
1st prize for the largest and best display honey in the comb.  
1st prize for extracted honey.  
1st prize for honey in the comb (quality and appearance.)  
1st prize for largest and best display of extracted honey.

We concluded to pay Mr. Jones a visit; he resides about one and-a-half miles from Brantford. On the 21st of December we made the trip, and found hives about the grounds in front of a little low house or work shop, an illustration of which is herewith given. Although not done by our own artist, yet it will give you some little idea of the place. The white spaces denote the walks, the house is only 12x20 feet, having two small wings. Inside we find all necessary appliances for manipulating the bees and honey. Here we saw honey in the barrel, in the cans, and in the comb. The different grades of honey are kept by themselves; the earliest, and that which was awarded the first prize, is made from basswood. We thought this the best when tasting it. We next tasted that made from clover, and then that from the thistle. We were glad to know that there is some little value in thistles, but for all that we do not intend commending their culture

We found that the thistle honey almost equaled that made from basswood, and superior to clover honey. This fact may reconcile some of our readers to utilize the thistle and benefit by their growth, as the bees extract enormous quantities of honey from this weed, and despite all the laws which can be passed for its extermination, the thistle will hold possession on a great deal of our poor and rocky lands. Mr. Jones is a very enterprising young man, and will we hope in future numbers of this journal contribute useful and practical hints. This winter he is experimenting on the

two methods of keeping bees—by removing them into cellars or allowing them to remain out of doors all winter. After viewing all the latest appliances for preparing the wax, etc., etc., we were shown into the cellars and the proper method of arranging the hives was explained to us. Space prevents us from giving all this very interesting information, but a visit to Mr. Jones' apiary would amply repay any one about to enter into the business, or to those interested in bee-keeping; should you do so, don't forget that Mr. Jones' time is valuable or stationary and postage cost money. Mr. Jones is young, enterprising, and intelligent. Last year he had only 25 hives, from which he took about three tons of honey and doubled his stock of bees.

The price of the ADVOCATE is nothing to be compared with its value.  
Delta, Ont. S. S.



VIEW OF BLACKBURNE APIARY, BRANTFORD, ONT.

the candies, and stung them so badly that at last the proprietor of the factory complained to us and we immediately got rid of all our bees, since which time we have had no opportunity to keep them, and during that time rapid progress has been made in bee-keeping. Better hives (thanks to Mr. Langstroth) are now used, and the insects are better cared for, consequently a greater quantity of honey is gathered, and bees are now better appreciated. One of our sons last summer, when his bees swarmed was busy with his hay crop and could not obtain a proper hive, so he put the bees into an old barrel, and in the fall took eighty pounds of honey out of the old barrel. Many of you, perhaps, have done no better. But Mr. J. B. Hill, of Woodstock, by using a Langstroth hive, obtained two hundred and eighty pounds of strained honey, has his bees left, and sufficient to feed them during the winter. At the last

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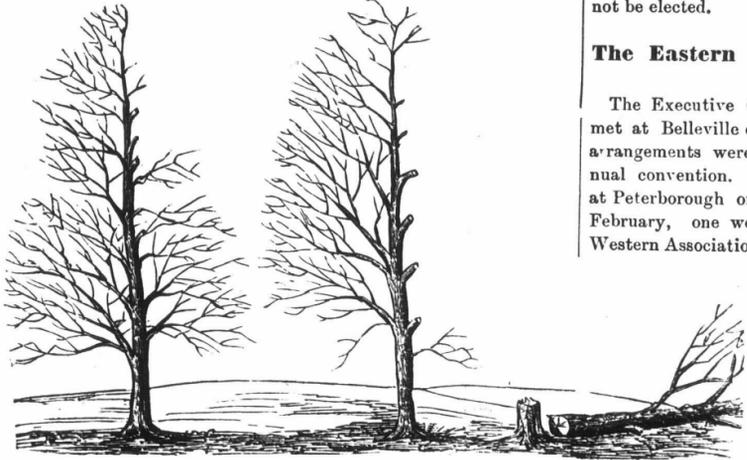
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**Tree Planting.**

The Government of Ontario has enacted laws for the encouragement of tree planting, and has expended large sums of money at Guelph and Toronto, but it is very questionable whether the money laid out in the ornamentation of our cities, towns and villages, is equal to the damage done to our trees by the telegraph companies. Recently, when passing along a road not far from Ingersoll, County of Oxford, we noticed the great destruction of young trees in the roadway, opposite a farm. Three nice trees about twelve inches in diameter, had been cut down. They were an ash, elm and maple. There were no other trees growing for a long distance on either side of the place, and these trees had been left for use and ornament. But they were ruthlessly swept away by the telegraph companies' employees. Another fine tree in front of the farm house had been cut down, despite all the protestations of the farmer. In another place the company had damaged a fine plantation. Farmers are apt to be intimidated by these companies, and are afraid to assert and demand their rights. Heavy damages were awarded to a farmer in the County of Middlesex, who prosecuted the Montreal Telegraph Company for cutting a tree opposite his property, and when damage is done by the telegraph or telephone companies, they should be compelled to pay, and that dearly, if they cut a tree, which grows upon or near the public roads, without the permission of the planter or protector. No one can value an ornamental tree so highly as the owner. For instance, upon our farm there stood a fine ornamental walnut tree; we

had saved and protected it. The children used to swing on its branches, and we used to sit beneath its shade. Rather than have had it cut down we would have preferred giving a deed for ten acres of land. What would a gentleman sell his pet spruce or other ornamental trees for? The timber value is nothing in comparison to their real value. Our Government should not permit the telegraph and telephone companies to damage the farmers' trees in the manner they have been doing, or why expend money to encourage tree planting. Our artist has made the accompanying illustration to bring the subject more forcibly before the minds of those interested. In it will be seen that one tree has been cut down, others with either top or lower limbs mutilated. We have seen many treated in this manner, some have the branches cut off on one side, which has a tendency to make the tree lean in the opposite direction, and completely ruins the future appearance of the tree, and trees that have their top limbs removed in this way never look so handsome as when left to form their heads without being



for spring wheat than usual; if you intend to sow any secure it early. If you have any to sell, of good quality, you could not increase its value or fill your pockets faster, than by letting the farmers at a distance know it. If any of our subscribers have any that is clean and fit for seed, whether you live in the Maritime Provinces or in British Columbia, or in any part of this continent, you will find an advertisement in this journal would be the best investment you could make. Many farmers want to purchase their seed from a distance, and would rather purchase from the grower than the dealer. If you have any good peas, free from bugs, it will pay you to let it be known. There is a demand for them in many localities. The enormous prices that horses have been selling at during the past few years, have aroused every one that could conveniently do so, to raise a few colts. Railroad constructions and the Manitoba rush, aroused a great demand. Lots of these young horses will be in the market soon. We may expect a great drop in the price of common horses. If you have a surplus beyond your require-

**The Month.**

Our fall wheat is now in its winter quarters, in which it entered in but ordinary condition. Farmers would have preferred a little more top on it, but we are not able to estimate correctly on our winter wheat until it is threshed. Last season it had an excellent chance to top. Many fields could not have looked better, but at harvest time we were sadly disappointed. We may all be overjoyed at the next harvest, but no certain result can be estimated in regard to it. On one thing you may pretty safely depend, that is it will pay to sow clover early in the spring, before the frost is out of the ground. If you choose, it will pay, if sown early, for either a feed or as a fertilizer. You all know that clover seed was a very poor crop, we might say a failure, in Canada last year. We see by the American papers that it is to be had at reasonable rates in their larger markets. We cannot expect to see it lower. Perhaps, in the spring, it may advance greatly in price. We would recommend you to purchase your seed as soon as you can. There will be a much greater demand

ments for present use, lighten your stock by effecting immediate sales, or, if possible, trade off horses for young cattle that will make beef, or butter, or for sheep. If you should sell yourself short, we believe you will make money by purchasing again in the spring. If you can get a fair price, at once begin. Everyone wants to sell. Dairy products, beef and mutton have paid, and will pay.

Attend the annual meetings of the election of officers for your agricultural societies, and notice if there is a clique working in your vicinity to put in sworn bondsmen, and to reject the independent and progressive. Do not let your vote be cast for some one who has never taken any interest in agricultural matters, except for selfish motives. The European farmers have had to contend against contagious diseases among their stock. Ask your candidate whether the sheep Act is in force in your vicinity, and what contagious diseases exists, or have existed, in Canada? Canadians would gain much more by having open discussions on this subject than on any other; also useful hints might be thrown out. Any officer that attempts to stifle useful discussions should not be elected.

**The Eastern Dairymen's Association.**

The Executive Committee of this Society met at Belleville on the 27th December, and arrangements were made for holding the annual convention. It was decided to hold it at Peterborough on the third Wednesday in February, one week later than that of the Western Association. The programme adopted includes the following speakers: Hon. Harris Lewis, President of the New York State Association, on "The Manufacture of Dairy Butter;" Prof. L. B. Arnold, Rochester, N. Y., on "The Manufacture of Fancy Butter and Cheese;" Prof. Roberts, of Cornell University, on "Butter, Cheese and Beef." The finances were shown to be in good condition, \$500 being on hand. About 92,000 boxes of cheese were made in Belleville last year.

**A List of the Seeds now Admitted Free of Duty into the United States.**

Under the amendment to the American tariff passed last year, the duty was taken off the following list of seeds, which the Secretary of the Treasury holds to be free of duty under the new Act:—

**SEEDS ON THE FREE LIST.**

Barley, for seed,	Potatoes, for seed,
Beans,	Parsley,
Beets, including man-	Parsnip,
gels and sugar beets,	Tobacco seed,
Cabbage,	Peas, for seed,
Carrot,	Pumpkin,
Clover,	Rye, for seed,
Cane (sorghum?)	Salsify,
Grass,	Turnip,
Oats, for seed,	Swedes,
Corn, for seed,	Wheat,
Onion,	

## Special Contributors.

### Stick to Your Business.

BY JOHN M. STAHL.

Farming is wide enough and deep enough to demand the entire attention and ability of any man, I care not how nobly gifted he may be. Just so far as the farmer engages in outside occupations and side issues, that far must he neglect his farm. The attention and talents bestowed on something else are taken from that business which had the right first to demand them, and which because of its importance deserved them. I do not say that the farmer should never leave his farm; but I do say that it should always be first and foremost in his endeavor. It is worthy of all he has to give, and will pay him best when he gives it all he has.

This evil upon the part of the farmers nearly always has its beginning in winter, and therefore I write of it now. The weather, I have noticed, has much to do with us who till the soil. It affects our spirits more than those of other men. Winter weather is often gloomy; the farmer is often gloomy in winter. Then his work, though not arduous, is unpleasant in winter and tends to discontent. Add to this the fact that he has considerable time to sit behind the stove and grumble and brood over past and present losses and we have a sufficient explanation for the determination so many farm at this time to engage in some other business or some other branch of farming. The determination is always to do one or the other of these two things—to quit farming *in toto* or else to take up some other branch of it.

Either is almost sure to result in loss. The trouble is that when a man resolves to leave the farm he never determines to learn a trade, or to engage in any occupation requiring as great physical exertion as the one he leaves. He can not, probably, take the time to learn a trade, and then the very reason he is leaving the farm is to earn his living by lighter and more genteel work. As a result, in ninety-nine cases out of a hundred when he leaves the farm it is to go to town to engage in some mercantile business. For this he is not fitted either by education or practice. Farmers do their business in a very loose way, rarely keeping books of account and frequently trusting their neighbors. This will not answer in the handling of merchandise in the city. Lacking experience and special knowledge of the business and carrying the loose methods of the farm into it, the farmer soon has no capital in his hands and all he has to show for that which is gone is a lot of bad debts. Of those who have left their farms to go to the city to engage in the city's pursuits, I have seen nine fail to one that succeeded. And the one that did succeed did so by mere force of pluck and superior abilities after many grievous losses. With the same pluck and abilities upon his farm he would have been thrice as successful.

The short and simple truth of the matter is that every occupation requires for its successful pursuing, a special training and special knowledge. Farming is no exception to this. Put the city man upon the farm and he would probably be no more successful than the farmer who took his place in the city. I do not

oppose the interchange of population between city and country. It is a most blessed good thing for humanity and society; but it is decidedly rough on a good part of those who make the change. Let the young go from one to another, not the old. Our best farmers are those who were "raised" upon a farm, had a taste of city life when young, and returned to the farm to spend their days. Our city cousins delight, perhaps, to call us greenhorns. But a greenhorn can no more farm than he can practice law or administer the no less bitter pill of medicine. Country life requires just as much knowledge and of just as honorable a character as city life. When the farmer leaves his farm he throws away all this special knowledge. It is just as if the man who had spent years in the study of law, medicine, theology, or in the acquisition of some trade, should engage in farming or in some other pursuit in which the special knowledge he has labored years to gain would be of no practical use. For the farmer to throw away the knowledge he has of the science and the art of farming, (and it is a science and an art,) to engage in some pursuit about which he knows nothing, would appear when presented as an abstract proposition as a mad undertaking; and the practical results, seen in the every day life about us, prove beyond a doubt that it is so.

Farmers, we have no way of judging of the future but by the past! The lamp of experience is the best light we have to guide our feet. All along the way of those who have left the farm to engage in some other calling are the wrecks of fortune and character. The warning is plain. Take heed. What better occupation is there than farming? None other is so independent, so sure, so honorable or so truly pleasant. Learn wisdom of the past. Stick to your business.

But many farmers are continually changing from one branch of farming or one group of crops to another. When potatoes for seed are selling in the spring at a dollar a bushel these farmers plant large patches. The result is a large supply and low prices. These farmers get disgusted; say it does not pay to raise potatoes; the next spring they plant few or none at all and of course potatoes are a good price. Then they are ready to raise big patches of potatoes again.

Swine may die with disease and the vacillating farmer goes to raising sheep or cattle. Wool or beef is a low price he comes back to hogs. Wheat makes a poor yield and the next spring he plants all his farm in corn. That year corn is poor while wheat is a good crop and the farmer wishes he had sown wheat while he resolves to put a large area in that grain that fall. Very likely the next year corn is a better crop or a better price than wheat, and then he is ready to change again.

Now the farmer can always raise some crop or some animals better than others. The soil of his farm will always be better suited to the production of some crops than others. The size of the farm, the amount of his ready capital, the help of his own family, the surface of the land, the distance to market and the character of those products that the market demands, as well as the character of the soil, will or should influence him in the selection of that particular branch of farming which he should

follow. It may be better for him to engage in stock raising than in grain raising; to raise sheep rather than hogs, or cattle rather than sheep; or to raise more corn than wheat, or more oats than corn. These products he can raise more advantageously than any other, and therefore to drop them and take up others must always be unprofitable.

In the raising of certain products he will gain special knowledge which must be sacrificed if he changes. For instance: if he has been a stock raiser he will know all about the excellent points of the different breeds and of individuals, of the diseases of animals, of the way they should be fed, watered and sheltered, and at last marketed; but he will likely not know so well how the ground should be prepared for corn, how that grain should be planted, or how the plant should be cultivated. Here he must lose again by change.

Lastly, certain implements and machines must be used in the production of different crops and these must be sacrificed if a change is made. Thus, if he has been a wheat raiser he will have a drill and self-binder. If he proposes to change to corn growing he will have no need for these and must sell them at a low price. Or if he proposes to quit raising swine and engage in sheep husbandry he must sacrifice his swine and buy sheep at a high price. For these farmers always change, when what they have is low and what they want to get is high.

In conclusion, all is to be lost and nothing gained by these ill-advised changes.

### Public Highways.

BY M. M'QUADE.

To those living in many parts of Ontario the term highway is an improper term for a public road, if the water level be taken as the base of altitude; since, in some places, the surface of the water in the ditches is nearly level with the surface of the roads. In pure sand this state of things would not be so, but since wet sand is solidier than when it is dry, in clay land and clayey loam it is impossible to make a good solid road while the foundation is full of water. A good solid roadbed cannot be got in either of these soils unless the water level is at least about thirty inches below the surface of the road, at high water mark. We may haul and pile gravel on clay roads until the subsoil has been tramped full of it and still not have good roads unless we first get good drainage. Unless we prevent the clay from being worked into puddles, our gravel will go down and be lost. It should not require a very long argument to convince any one of the years of discretion that clay is harder when dry than when it is wet, but some think that, if the water is not as high as the road, it is all right; that, since water is supposed to keep level, an elevation of six or eight inches above water mark will give them a dry road, but in this they are mistaken, as every one must have noticed that even on a hill where water stands on the roadside a soft place will be found in the road opposite, although the water should be several inches lower than the road; and why, simply because the soil is porous and like a fine sponge, the water rises through it considerably above its level in the ditch, just as in winter when we wish to get a drink of water that is covered

with thick ice of a foot or more in thickness and have no other means, we cut a hole in the ice and pack it full of snow, the water will rise to the surface of the snow though it be higher than the ice, by what is called the attraction of prosity. In the same way water will rise from a ditch into the roadbed to a considerable distance above its level in the ditch, which will be higher or lower according to the looseness or compactness of the soil, unless in perfectly pure clay, which does not exist as soil or subsoil in our Province, and through which water will not pass, the more compact the soil the higher water will rise. In the case of gravel or sand which is too open, it will not rise above its level. Therefore, in all clay loams which is the general character of what we call clay, so long as water is allowed to come within two feet of the surface of the road we cannot have a dry road, unless the sun and wind should carry it off in evaporation as fast as it comes to the surface; but let the weather get damp, the air charged with vapor so that evaporation will cease, and the surface will at once get wet, cut in ruts and become permanently spoiled. To illustrate how water rises through the soil, the following simple experiment will be quite instructive. Select two pieces of perfectly straight window glass, say two or three inches square, wash them clean so that no oil or grease spots may be on them, then dip in clean water and let it drip all off; next place the pieces flat over each other, grasp firmly between the finger and thumb near the middle of one side, and between the pieces at the opposite side place a piece of shaving, or two or three folds of paper about a line or less in thickness to keep the pieces of glass apart; now, you have a set of pores larger at the side where the pieces of glass are separated and smaller where they are held closer together. If you will now set the glasses perpendicularly in clean water so that the part held and that where the shaving is may be nearly horizontal and not touch the water, the water will rise between the glass in a parabolic arch, high at the side held close together where the space is small and low where the space is larger, by exactly the same law as water rises from a ditch to the surface of the road. If a little coloring matter be infused in the water the experiment will be more beautiful.

If two pairs of pieces thus arranged and placed edge to edge so that the open spaces be at the outside, it will afford a very good similitude to the porosity of our roads and how water rises through them since the tramping and pressure has made them solid in the centre while they are opener towards the sides. Some may be disposed to think that our ground is not so porous and that water may not rise in the way here illustrated, but such is the fact. Our most solid roads become porous if allowed to get wet and dry. All clay soil swells by wetting and shrinks by drying, as this shrinkage does not shorten the road or make it narrower, it opens little pores in it, small, it is true, but large enough to take up and hold water. Every one who has any experience in setting fence posts knows that, after planting the post, there will be scarcely earth enough to pack around it, even should they be set in a tolerably solid road, yet we do not

get the clay around the post quite solid.

After a good outlet and good drainage the next important point is to keep the road rounded slightly on the top, so that rain may run off to the sides, and where clay has been banked on each side of the gravel and prevents the water from running off, or when the wheels have cut ruts to hold water, little narrow channels should be cut from the rut to the ditch to let the water run to the ditch, since water and friction are the two powerful agents to reduce gravel to powder and spoil a road. So well do stone cutters know this that with a small flow of water and a piece of hoop iron, they will saw across the largest block of stone. Where gravel roads are already in tolerably good repair, but undrained, rather than cover the gravel with clay, the clay from the ditch thrown towards the fence, leveled and seeded down, would make a convenient sidewalk in wet weather. In many sections road beds are made too wide, and in consequence soon become flat and hard to keep in repair. Where over eighteen feet wide the sooner they are narrowed the better. In the selection of gravel, that which has clay amongst it makes a better and more durable road than either screened gravel or gravel mixed with sand, as the clay soon makes a bond and prevents the stones from wearing each other, which they would do if screened or mixed with sand.

#### Chatty Letter from the States.

[FROM OUR OWN CORRESPONDENT.]

Receipts of cattle at Chicago for the year 1883 show an increase of some 300,000 head over the previous year, making a grand total of about 1,870,000 head of cattle. Counting the 310 working days, the daily average receipts were about 6,000 head. This is something entirely unprecedented, and stands on record as the largest receipts of cattle ever known. There is one feature about these figures which is of peculiar interest, namely, the fact that the receipts of range cattle during the year show a decrease of more than 100,000 head, as compared with 1882. This shows that while there was a large increase in the total receipts it was not from the ranches of the west, but from the various feeding sections of the country, showing that while there was a marked increase in numbers there was also an increase in weight. Of hogs, the receipts were about the same as in 1882, but the average weight of the stock was about 10 lbs. per head heavier. Receipts of sheep were about 150,000, heavier than in 1882. There was nothing more striking in the lessons of the year now closed than the great progress achieved in the matter of early maturity. In former years, aged, over-mature stock was the rule, whereas of late that kind has been the exception. There were many 1,800 to 2,000-lb. beeves sent on for Christmas, which were three and four years and older, but the great bulk of the good, useful cattle came to market under three years. There were more 1,150 to 1,200-lb. yearlings than 1,800 to 2,000-lb. four-year-olds. Of course, it is not wise to go to either extreme, and it is as foolish and unprofitable to market cattle that are very immature as to send to the shambles animals that have long passed their best time.

Recently a car lot of 1,553-lb. Galloway steers sold at Chicago for \$8.25, the top price

paid for Christmas beef. They were two-year olds, and presented a good appearance. Some selected two-year-old Shorthorns sold at the same price. The celebrated Hereford bull Grove 3rd, sire of Rudolph, which was bought in England by O. M. Culbertson, of Chicago, for about \$4,000, was at Chicago recently. This famous bull is nine years old. The price paid seems like a foolish one, in view of all the facts. Of course, if he should get a couple of bull calves like Rudolph, he would abundantly pay for himself, but such high prices for such old bulls are more apt to be for advertising purposes than anything else. As I said last month, Hereford cattle are too high. There is no sense in the foolish prices that are being paid in many cases. At the present time, yearling bull calves by Hereford bulls, out of common or Shorthorn cows are selling to western ranchmen at \$75 per head. Are they worth it? Better Shorthorns are selling at \$40 to \$50 per head. The Herefords are very scarce as compared with the Shorthorns, and as importing them is expensive business, they sell at high figures; but I repeat the question, are Hereford cattle worth the prices they are bringing? As time goes on the ranchmen of the west will demand a much better quality of bulls than they are getting. Many quarter-bloods have been palmed off as being out of thoroughbred sires. As soon as the demand is fairly supplied, buyers will be more exacting, and many of them will have more experience. It is said that the best cross that can be made to put on Texas and western cattle is a bull from a thoroughbred Hereford sire and Shorthorn dam.

Cattle are selling fully as high as they did one year ago, but there is much less activity in range stocks than then. It is said that nobody is willing to pay what ranchmen ask for cattle and grazing lands, while they are not willing as yet to make any material reductions. The deficit of 100,000 Texas cattle this year as compared with last is largely owing to the fact the cattle were marketed too closely last year, but also to the fact that many ranchmen came to the conclusion that they had better hold till next spring, and come in on early markets, than to accept the prices which were obtainable this fall. They have confidence in good prices next spring. On the other hand, in Texas there is little or no disposition to make contracts for cattle to put on the spring drive for northern markets and northern ranges. The railroads have cut into that business heavily, but at the same time it is evident that people are afraid to buy liberally for next year at current asking rates.

There has been a remarkable increase in the sheep business lately. Americans are getting to be extensive mutton eaters, only they have not been getting very much mutton fit to be called such. The average American shepherd appears to think that wool is the only end of sheep.

A sprinkling of air-slaked lime is the best preventive of rot in potatoes. It absorbs the excess of moisture, and when the diseased part dries up decay ceases. Of course the sound tubers should be separated as quickly as possible from those in which disease has made its appearance.

## Stock.

## Mr. Benjamin Tomkins.

Mr. Benjamin Tomkins, of King's-Pion, Herefordshire, England, is generally credited with being the originator of the Hereford breed of cattle. The portrait which we give herewith is one that we have had engraved from that which appears in the Hereford Herd Book. We are without particulars concerning the life of Mr. Tomkins. From Vol. I. of the English Hereford Book we copy the following:—

Mr. Tomkins' herd originated, according to Prof. Lowe, in two cows purchased by him at Kington Fair, about the year 1766; according to others, they were purchased from a wheelwright in the village, and had been taken notice of by Mr. Tomkins on account of their singular aptitude to fatten. Miss Tomkins informs me that one was a grey one, and the other a dark red one, with a spotted face; the former he called Pigeon, and the latter, Mottle. From whatever source obtained, there is no doubt that these animals, with occasional crosses from the best-selected herds in the neighborhood, were the foundation of the stock which has been so celebrated for many years at the King's-Pion. During the latter portion of Mr. Tomkins' life he used none but bulls bred by himself, and did not cross with any other stocks, which system many of the breeders into whose hands his stock has fallen have since carried on. So justly confident does Mr. Tomkins appear to have been in the superiority of his stock, that he once drove twenty of his cows to Hereford, on the day of the agricultural show, and offered 100 guineas to any one who would show an equal number superior to them; and the offer, however, was not accepted.

The bull which is often referred to by the name of Silver Bull, he always considered as the first great improver of his stock. There is a prevailing opinion respecting the bull's name, that it was given to him because he was of a silver or grey color; but the fact is, that he was a red bull, with a white face, and a little white on his back; and his dam was a cow called Silver. It was said frequently by Mr. Price that he had obtained from Mr. Tomkins the best animals he possessed; there was, however, one at least to be excepted—an old cow, a remarkably good breeder, which Mr. Tomkins always refused to sell, although Mr. Price offered him £250 for her.

Mr. T.'s herd, numbering fifty-two head of all ages, was sold to settle his estate, Oct. 18, 1819, the average price realized being about \$445. The highest price made was £588 for a bull, while six cows brought over £200 each, the highest bringing £273.—[Breeder's Gazette.

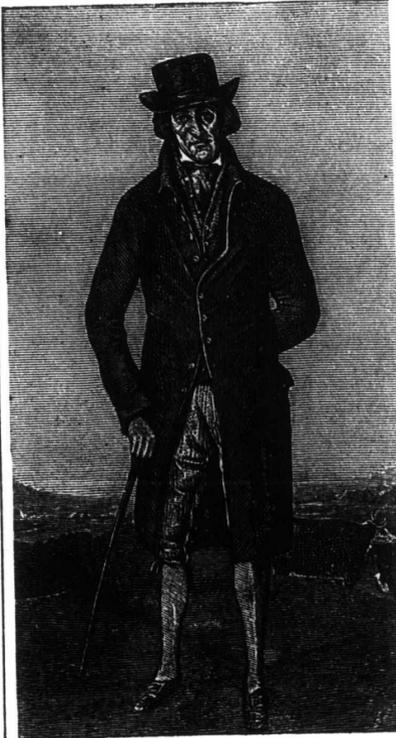
## Fancy Beasts and Fancy Prices.

BY JOHN M. STAHL.

There are fancy animals and fancy prices are paid for them. Five hundred dollars for a hog or sheep, five thousand dollars for a cow or bull, is a large price and not unusual. When the common herd are priced at figures so much smaller than these, the inquiring mind naturally ask why these prices are asked and given. The answer is given that these are fancy animals, and fancy prices are paid for them. Why

are they called fancy? It can be no term of reproach or debasement, for it is used by the warmest friends of these animals. Yet "fancy" indicates something unreal, unsubstantial, as well as a little better than the average. A fancy animal is one that is a little more beautiful and neat, a little more glossy than the ordinary, yet whose boasted virtues are of an unreal, unsubstantial kind. Is this a fair and correct inference? Let us see.

When a hog sells for two hundred dollars it is not contended that its carcass is worth that amount. When a sheep sells for the same price it is not supposed that either its mutton or wool, or both combined, are worth the sum paid. When a cow sells for two thousand dollars it is certainly not because she would bring that amount at the butcher's block, or that her milk will be a fair equivalent for the purchase price. This shows that so far as ordinary worth



MR. BENJAMIN TOMKINS.

is concerned these animals are very fancy, and the prices they command altogether fanciful.

It is therefore apparent that the man who buys these fancy animals can not get a return of his money if he depends upon the ordinary markets alone. The beef, mutton, pork, wool or milk he may have to sell will not place in his pocket that which he has paid out. As a corollary, the ordinary stock raiser, he who feeds and breeds for the popular market, can not afford to pay these prices. A cow may make four hundred pounds of butter a year; but even at that enormous production she is not a profitable investment to the butter-maker, when her price is ten, or five thousand dollars. If then, the man who sells dead, inanimate products can not afford to pay these fancy prices, who can?

To answer we must go back a little. We have seen that the price does not depend upon

the value of the produce, flesh or other, of the animal. Does the price represent value? Is the cost the worth of it? Or are these prices altogether fanciful? It is contended for the males that they will transmit their good points, which I am ready to admit they possess, to their posterity, and that the excellence of a long line of posterity must be taken into account. But our next move is to question if this claim is well founded. To transmit these good qualities in the greatest perfection, the sire must be vigorous, mature, fully and symmetrically developed, with strong sexual desires, and healthy, vigorous sexual organs, of general good health. These positions are well taken and justified by physiological laws. The animal must be vigorous, for if it is weak it must weakly transmit. The animal must be mature, for if not mature its qualities are imperfect, not fixed, and their transmission will be imperfect and doubtful. The animal must be fully and symmetrically developed, for if not its offspring can not be so. The animal must have strong sexual desires, and healthy vigorous sexual organs, for if the latter are not so the transmission of any qualities and in any degree is impossible, and if the first is not so the transmission must lack in distinctiveness and completeness. Lastly, the animal must be in general good health, for if unhealthy the sexual organs will lack what they must have.

Now do these fancy males meet these requirements? From their natal day they are forced and pampered. All the fat that the organs can be coaxed or coerced to store away is deposited in the body. The more fat the better. Obesity like this is so unnatural, so abnormal, that it must be considered a disease. And so it is. All the vital functions are enfeebled; all the vital operations clogged with this mass of adipose tissue; all the bodily organs weighted down and impotent. The animal must be vigorous; these absurdly fat ones never are. Fat in such quantities is directly opposed to vigor. The animal must be fully and symmetrically developed; an animal two-thirds fat, and the balance bone and muscle is not. The animal must have strong sexual desires; that these animals have not goes with the saying. The sexual organs must be healthy and vigorous; how can they be when all the organs are diseased and impotent. The animal must be in general healthy, and it is not. It meets none of these requirements. It is not valued because of its power to transmit in high perfection its good qualities to its offspring, for it lacks this power.

For the females it is contended that they will produce offspring that will sell at the same fancy prices. But this is begging the whole question.

Nor do these fancy animals bring fancy prices because the expense of production is great. Leaving out the cost of the ancestors and their raising costs no more than the raising of a scrub animal. One of the points most strongly urged in their favor is the less cost of production. We must look elsewhere for the reason of these long prices.

It is not the animal itself which brings the high prices, but its pedigree. Circumstances prove this to be the case. The absence of other reasons goes far towards proving it. If

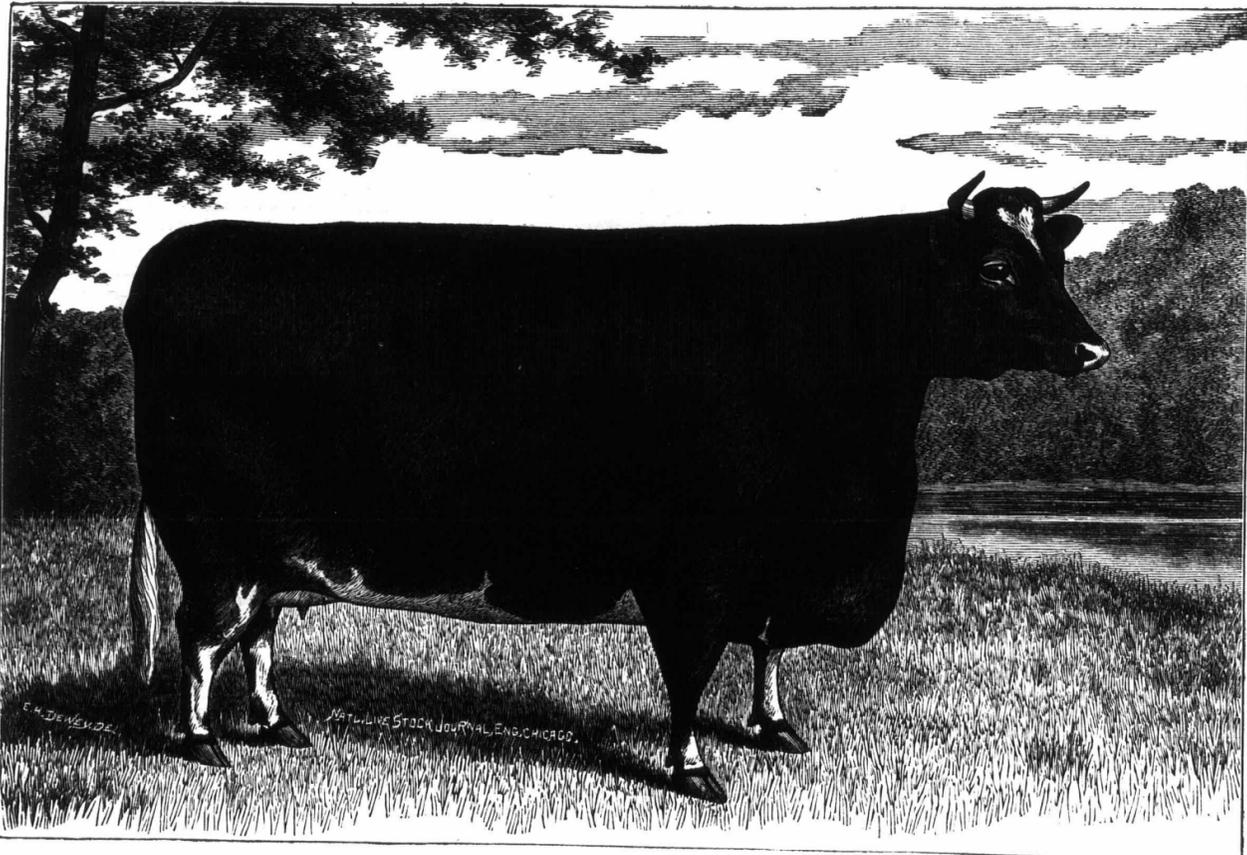
we need other proof the sale catalogues furnish it. Here the pedigrees are stated at great length and fulness, and with minute precision. Upon this the buyer depends. He buys the animal that has a good pedigree. It is not what it is, but what its progenitors before it have been that he pays for. He does not look at the animal in the ring but at its pedigree in his hand, and bids accordingly. He does not buy the animal, he purchases the reputation of its ancestors.

Then he only can afford to buy from those who can sell the pedigree again. The man who buys to sell the animal, or its produce, can not pay fancy prices. But he must have good animals. Can he get them by paying for them alone?

I answer in the affirmative. There are high

th m pers nally I have no quarrel. They have one much for us. They have never been honored enough, and it is not likely that they will ever receive a right meed of praise. But the fictitious values given these animals, or rather their pedigrees, I do oppose. I do not say that the breeders, the sellers, are wholly to blame for this; the buyers are equally at fault. But the evil is not thereby lessened. Abolish the fancy prices and it will do a great work for the general stock raiser, while not being detrimental to the interests of the breeders, for it is the fancy prices of the ancestors that compel them to charge fancy prices for the offspring. Abolish the buying and selling of pedigrees and it will do more to improve the farm stock of this country than anything else

whom we have given an illustration, have gained the greatest honors awarded to Canadian stock. These animals are of greater importance to the breeders of Shorthorns than any other animals exhibited in Canada or the United States, as they tend to bring credit in a foreign country to our stock. We should feel interested in them, as they are doing the necessary work for our breeders. We look forward in hope that these animals may yet bring greater honors to our country, as they are to be kept for future exhibition. These two beautiful animals may be seen at the Bow Park Farm as soon as they have completed their term in quarantine. The sight of them to those really interested in Shorthorns will amply repay for the visit to the farm.



GRADE SHORT-HORN COW, CANADA'S PRIDE.

PROPERTY OF THE CANADA WEST FARM STOCK ASSOCIATION, BRANTFORD, ONT.

grades that for the purposes of the stock raiser are equally as good. These can be bought for what they are worth. There are full bred animals that lack some excellence of pedigree; there is some defect in their genealogical tree, and they can be purchased for their true value. That fancy animals are bought, not for themselves, but for their pedigrees, is shown by the care with which these pedigrees are preserved in books. But these animals I have just been speaking of carry their worth in themselves; it is not preserved in records. These the stock-raiser can purchase at reasonable prices, and these alone he can afford to buy.

Do not understand me as unnecessarily agonizing the breeders of animals. With

can do, for it will put the best animals within the reach of all.

If I have wronged any one let him speak. I have taken an unpopular stand. I have written honestly. I desire only to get at the right of the matter. I want light, whether it shows me standing upon wrong ground or otherwise.

#### Canada's Pride.

We furnish you an illustration of this very beautiful cow, as, in our opinion, she was the best model of a fat cow exhibited at any of the exhibitions we attended last year. She is not as large as some, and her flesh is very evenly laid on. Although rolling fat she walks with greater agility than any beast we have ever seen. This animal and Kirklevington, of

#### Live and Dressed Weight of Cattle.

Messrs. Swan, of Edinburgh, Scotland, the well known cattle dealers, write regarding the proportion of beef netted to the live weight of cattle: "We should say that well finished two-year-old cattle will yield sixty to sixty-two lbs. of beef per one hundred lbs. live weight. The primer the quality and the younger the animal the more beef is given. For a finished three-year-old bullock we should say from fifty-eight to sixty-one lbs. of beef per hundred lbs. live weight. We calculate that Canadian fat cattle generally will yield fifty-five to fifty-eight lbs. according to quality. In weighing them alive, in order to get at the dead weight, they should be fasted twelve hours, or, if weighed full, or after being fed and watered, a deduction of five per cent. on this account should be taken from the gross live weight."

### Preserve Your Implements and Buildings.

During winter is the best time to prepare for summer, and to make the farm profitable we must stop all leakages. Of all wastes on the farm, we know of none greater—particularly in the West and North-west—than the destruction of implements, buildings and fences, from the lack of protection. We believe farmers are losing millions of dollars yearly. Good houses are erected, good fences made, and expensive implements are purchased, which look well for a year or two. But our hot and cold weather opens small cracks, the water enters, and rot soon commences. Half of the large reapers never find a shelter after once being put into the harvest field, but are left exposed to the weather. The average duration of these implements does not exceed five years. We have seen a reaper doing good work that had been in use over twenty years, and a wagon that had done the work upon

and are thoroughly pulverized and incorporated with one another, according to the quality or color of paint wanted. When properly prepared, they are packed in tin packages or in kegs, as required, and are sent to all parts of this Dominion. We have procured paint both in the keg and cans, ready mixed, from this factory, and have never used any other that has given us such satisfaction. We painted a large house, sides and roof, and feel entirely satisfied with our investment. We might state, in this establishment, Mr. Johnson makes all his own tins, using the latest and most improved machinery for this purpose. A thoroughly competent chemist on the occasion of our visit was busily engaged with his chemicals, crucibles, vials, and other apparatus. In this department every color is first manufactured on a small scale, and instructions given for making larger quantities. Not the least interesting part of the establishment was the dry color department, from the fact

### The Dairy.

#### Thoughts on Dairying.

BY JOHN GOULD.

The recent article in the *ADVOCATE* by Mr. Bessey, contains more than the usual number of suggestive facts in relation to our dairying. It is a fact that winter dairying has, to become general, to make dairying wholly profitable. Our productions are too one sided. We produce at a time of the year when it is impossible to keep our dairy products for any length of time, except in cold storage, and then when it is placed upon the market, it has then to be disposed of immediately or it is a total loss. It is quite possible that if winter dairying were to become more common, that the present ex-



INTERIOR VIEW OF PAINT FACTORY.

THE PROPERTY OF MR. WILLIAM JOHNSON, MONTREAL.

a farm about thirty years; still, the wood-work was in a better state of preservation than many not in use two years. In the former case the owners were careful men, who gave their implements a coat of paint when needed. We do not know of any expenditure that will pay better than money spent in paint. In the spring, when the weather is dry, but the land too wet to work, is a good time to paint over your machinery and buildings. When in Montreal recently, we, in company with our artist, called at Mr. William Johnson's paint factory, which we presume is the largest of the kind in Canada. As a scene of this kind might interest you, our artist took a sketch of the interior of the works, which is now presented. In the cellars, store-rooms and yards are to be seen large piles of barrels, boxes, tin and iron cases, which contain the raw oils, lead, zinc, minerals and earths. These substances are emptied into large crushing mills,

that this is the only manufactory of this kind in Canada, and in this department we were shown large boilers, in which a colored liquid was boiling, and in answer to our enquiry we were informed that a batch of "agricultural red" was going through one stage of production. This class of goods is a specialty with Mr. Johnson. He publishes a neat pamphlet, giving you full instructions how to paint, from which you will gain much useful information from it. Write to him and he will send you one free.

Cows will drink foul water of moderate temperature in preference to very cold water which is pure. Their instinct rebels against taking anything into the stomach which will chill them. Dairymen should remember this.

No farmer with a large stock of cattle to take care of, should fail to provide a supply of water that can be used in the barn in very cold or very stormy weather.

teme winter prices would not be realized, but it is more supposable that higher average prices would be obtained. With dairying, about the only equalizing that can take place, is to make the production more uniform. With all our other industries, the supply and demand can be controlled by "shut downs," storage, running on half time, etc., but with the dairyman it is different. He must run with a full head of steam, or he courts failure. The moment a cow ceases to produce, she becomes a bill of expense, and if production is shortened by milking her once per day, no system of feeding will coax her back to the regular mess when prices advance. The low prices in the summer are simply producing too much of a good thing. Not that less butter is eaten in August than in January, but more is made in August, and its long keeping is impossible, hence it is sold at buyer's own prices. I would not argue for ex-

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clusive winter dairying, but would admit all that Mr. Bessey would imply as to making the products uniform by winter dairying.

In reality there are only two methods to obtain cream, shallow and deep cold setting. Cream in practice rises only when the temperature of the milk is falling, and the two systems give two results. Milk shallow set, and with temperature long in falling, gives us a solid, firm cream, containing but little milk or cheesy matter, but when the temperature is rapidly lowered, the ascending cream takes up large quantities of scums with it, making the bulk lighter in volume of cream. I apprehend that failure in butter making more often results with such thin cream than with the other more dense article. There will be an excess of butter-milk, and hence more labor is required to properly expel it, and when the butter is worked over, there is an uncalculated amount of this nitrogenous matter, that quickly gets off flavor, and results in poor butter. If this thin cream could have ripened to the exact stage of a trace of acidity, aided by stirring, and then churned in a revolving churn at 54°, and when in the granular stage, thoroughly washed with brine to dissolve out the milk, and set the color, this butter would be a long and fine keeping article. I do not think any more or better butter can be made by the deep setting plan, than by the old plan methods, with a good milk room, but there is a gain in labor, and a dispatch that cannot be ignored, so if a distinct and perfectly adopted method should be used in its after manufacture, I see no reason why the quickest, and easiest way, is not the best in future butter making.

It is to be hoped that no dairyman in Canada scalds his milk to secure a supposed greater product of cream, or that he is securing a better product of butter. My experience is, and aided by the results of a most noted creamery man near, that scalding milk is an absolute damage. There is a distinct loss of flavor, a tallowy texture to the butter, and a sharp taste, that indicates that some of the fine oils and elements that enter into the composition of butter have been injured. If cold setting of milk extracts all the cream, why should we heat it to secure and support the same result, when we know heat causes fusion and cooks what we had rather have had left uncooked. The only reason for scalding milk is to extend the time in which the temperature will fall, which could have been better attained by setting the milk at its natural heat, in a room at 62°, and in which this warmth could be retained. When the milk room cannot be kept warm the best plan I have ever noticed is to set the milk twenty-four hours, then bring it near the stove and warm it back to its natural heat, using a thermometer, so to be sure, and then set it away and skim after another twenty-four hours. Milk can be better brought up to a natural heat than to scald it at the start up to 150°, and then see the pan covered with a mass of wrinkly, leathery cream, filled with cooked curd, which will result in speckled and flecked butter.

Some one asks why cream can not be all taken out of milk? It could, but from the fact that cream globules vary in size, from the very large ones—from butter globules—to those

so small that they cannot be detected. As it is specific gravity that causes cream to separate from the milk, it will seem that the larger the globule, the greater will be its power to separate from the milk, and the smaller the globule the greater difficulty it will have to rise, in fact, they become so small that the denser fluid with which they are surrounded counteracts their gravity, and they are held in duration. The more powerful action of the centrifuge acts upon a larger number of them, and slightly increases the bulk of cream; but even this power fails to separate all of them. This in part accounts for the fact that some cows while giving a rich, heavy milk, fail in a cream result. The globules are too small to be separated from the scums. Then on the other hand a large yield of cream may be disappointing, for by some process the cream in rising took up too great a quantity of cheesy matter, and the result was again disappointing. In all cases the churn test is the only reliable one, and even then two persons may, one by skill and understanding, or the other lacking in them, obtain wholly different results, from apparently similar cream and appliances.

#### Consulting Dairymen.

Mr. H. M. Jenkins, secretary of the Royal Agricultural Society of England, says:—"In Denmark, practically speaking, no good butter was made twenty years ago. Now, Danish butter has practically no rival in the English market in the winter, and Normandy butter is almost as uncontrolled in the summer." This wonderful progress in Denmark has several causes, but chief is the thorough training under competent instructors of the dairywomen of that country. Indeed, so far has this matter of dairy education gone that they have a class or profession, who, having certain headquarters, go about the country teaching those who wish to learn, or helping and instructing those in difficulties. Their relation to the dairy farmers of Denmark is very much like that of a physician to the community in which he resides. For instance, a dairyman whose butter has sold at the highest prices, all at once finds something wrong, the butter fails to command the former high price, and he can't tell why. Now, instead of doing as so many of our butter-makers would do, give the commission man a general "blowing up," and in a fit of anger send the butter to some one else, the Danish dairymen send for what they very appropriately call the "Consulting Dairymen," who, by a careful examination of the premises, the dairy utensils, the food of the cows, the methods of manufacture, etc., makes a dairy diagnosis, points out the difficulty and prescribes a remedy, as a physician would do for the sick of the family, and the butter-maker pays him as he would his physician.

Manifestly this plan has its advantages. In the first place, the butter-maker acknowledges that some one else may know more than he does, and that for the average Canadian would be a very healthful sentiment. Second, it does away with the foolish, shortsighted plan so commonly adopted by saying, "Oh, well, it will come out all right by and by." Then it is generally the most economical, as the loss to the dairyman in the shrinkage of his price

would soon amount to more than the fee of the "consulting dairyman," or as some would call him, the "Butter Doctor," would come to. Besides, the dairyman, his wife, or hired help in charge of the dairy would learn, in the true scientific way, what the difficulty was, and its remedy, so that it would be avoided or easily corrected in the future. But more than all, the butter of that dairy, and of any other one which adopted the same method of calling in the consulting dairyman, would secure and maintain a valuable reputation for a high and uniform standard of excellence. Its butter would soon be known to the dealers and consumers of fine butter as of superior excellence; uniform in quality, and this uniformity is often the most valuable feature of a dairyman's reputation. It is this uniformity of excellence which has so greatly helped the creamery butter in its competition with the changeable qualities of even the better private dairy products.

The thorough training, the high and paid-for skill, all of which are involved in this system of consulting dairymen, have in the short space of twenty years put the butter-makers of Denmark at the head of their class in Europe.

#### Butter, Cheese and Eggs.

At the recent annual meeting of the National Butter, Cheese and Egg Association, at Cincinnati, 700 persons were present, and there were representatives from all sections of the country.

Mr. J. W. Johnson read an able paper on "The Situation." It was at times humorous in style, and generally very bitter on the bogus dairy products of the day. The essayist said: From conventions and the public press, from firesides and the festal board, from Boards of Health and from Congress, let there go out a voice that shall convince the makers and vendors of butterine that their "day is done."

Further on he met the question uppermost by thus apostrophizing the "foe of dairymen": "Whence and what art thou, execrable shape?" Its name may be read in letters clear—under the bottom of the tub, or under the hoop, or under a label on the lid—"Butterine." Counterfeit! Fraud! Smuggler! Show what kind of stuff you're made of." The speaker explained the existence of this foe of the dairyman was the dairyman's neglect and inefficiency, because he did not comprehend the situation. The estimated amount of real butter would not allow half a pound a week to each person in this country, and taking into consideration the fact that a large amount is exported, the origin of the adulteration of butter becomes apparent. Of this the speaker said: Its growth has been gradual. But a few months ago it made its appearance for the first time on 'Change in the American metropolis. In modest Chicago vast sums are invested in the trade, and even many creameries, 'tis said, are using foreign elements to produce butter.

He claimed that the trade is on the increase, and that one factory manufactures as much as 25,000 pounds per day. It has damaged dairy exporting, for it has substituted genuine butter in some measure, and driven foreign customer elsewhere.

This paper called out a deal of discussion.

greater part of the money obtained in the town.

We understand that the quantity purchased by the different buyers amounted to nearly 75 tons, which, putting the average price paid at 15c. per lb., amounts to about \$22,000, no small item for the farmers to have scattered among them. This fair, which has now been established 27 years, has kept on increasing in importance year by year until it has assumed the present proportion. Other towns in the vicinity have endeavored to establish fairs, and some are succeeding very well, and if the dressed poultry trade continues to increase as it has done in the past, it will soon become one of the leading products of Central Canada.

#### Product of the Hen.

The hen has in her ovaries, in round numbers, more than 600 egg germs, which develop gradually and are successfully laid. Of these 600 the hen will lay 20 in her first year; 135 in her second, and 114 in the third. In each one of the following four years the number of eggs will be diminished by 20, and in her ninth year she will lay at most 10 eggs. In order to obtain then sufficient product to cover the expense of alimentation, they should not be allowed to live over four years.

Don't feed your poultry on the ground. It is not only a wasteful plan, but produces disease from the amount of filth which will be swallowed with the food. Use a clean board or trough to place the food upon.

Lime and kerosene are two articles which should be plentifully used about all poultry quarters. These are both excellent disinfectants, and are death on vermin. It is a good thing to see that all the perches, bottoms of nest, etc., are well sprinkled with common kerosene.

A Maine poultry fancier secures green food for his chickens during the winter by planting common canary seed in tubs or boxes in the cellar. He simply scatters it on top of the earth and says it comes up in three days, furnishing food which is highly appreciated.

At the great show of poultry, recently held in Birmingham, England, the enormous price of five hundred dollars was paid for a black red game cockrel, winner of the challenge cup. To outsiders this may seem a ridiculous price, but Mr. T. P. Lyon, the great breeder of games, about four years ago paid a similar figure for a bird, and says it was the best bargain he ever made.

An English poultry fancier has little trouble with the gapes among his chickens. He says: On the first appearance of gapes, make a quart of oatmeal porridge, stir into it a tallow candle and administer it warm to the chicks; repeat it in about two hours. Sometimes I used two or three tablespoonfuls of drippings when I had no tallow candle in the house, and with equal success. The extreme simplicity of this remedy renders it at least worth a trial. I have never lost a chick from gapes after administering this remedy.

### The Farm.

#### Carriage-House and Stable.

The engraving of the elevation shows doors of the rectangular, carriage-house portion of the building; also door to hay-loft. The carriage-house doors are folding, and open outward, as they can be made closer when hung on hinges than when hung on rollers; and as it is desirable that all doors and windows should be as close as practicable, that they may not affect the ventilation, the ingress of which is provided for by a subterranean air duct, seen at A, in the ground plan.

The posts are sixteen feet in length; the ceiling of the stable is nine feet in the clear, with storage in the loft for twelve tons of hay.

The oat bin is a cylinder of one hundred bushels capacity, around which circular stairs are built. Its location could not be more convenient, as six horses can be fed grain with walking but fourteen feet, on account of the six

with air through the floor, under the stairs, and the animals all breathing into a common centre directly under the egress, the air is constantly changed without a perceptible current, and it is nearly at the temperature of the earth below the frost and solar influence; no doors nor windows need be opened.

By reference to the plan, it will be seen that the stall partitions are radial. The stalls are five feet in width in front, and eleven feet at the rear end. The stalls V, and VI, are arranged with strong gates hung to the wall of the building, in a line with the stall partitions, which, when closed, as seen in stall VI, form spacious, convenient box stalls. There is no partition between the carriage-house, VII, and the stable portion of the building, except that formed by the stall partitions and the gates closed, as seen in stall VI.

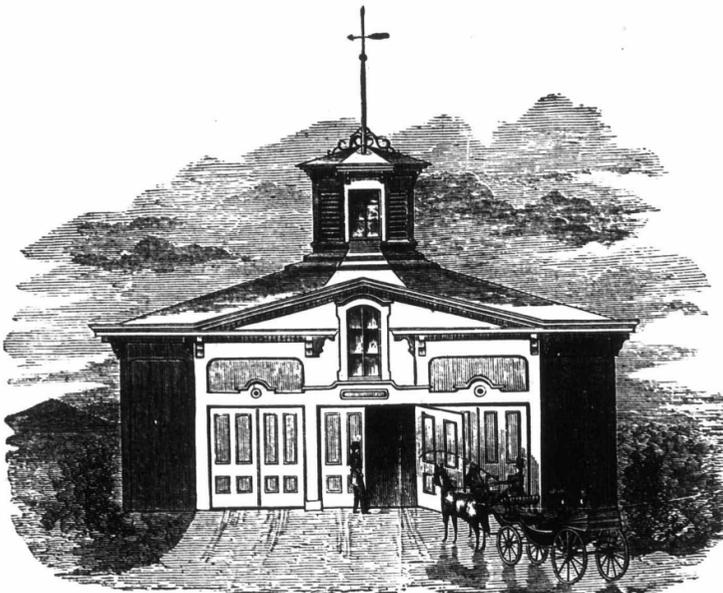
The ventilation is so effectual that the air of the stable does not affect the carriage house; and it being arranged with three drive doors, three pairs of horses to carriages may all be driven into the carriage house at once, and the doors closed behind them, and the horses taken to their respective stalls. There are two harness closets, H, H.

The rectangular figures in each stable floor, are cast-iron drip grates, each covering a sink, or pit, into which the urine falls. These are all connected by pipes, which all connect with a main inner conduit, laid in the ground by way of the stable door. This conduit discharges into the manure house. The quadrant-shaped figures at the head of the stalls, are hinged, iron mangers, which may be turned into the feeding passages for convenience in feeding, and the mangers may be unhinged and removed from the building when cleansed.

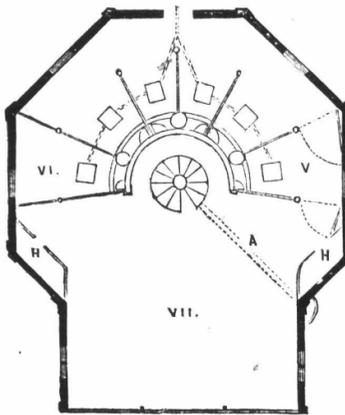
The circular figure in the line of the stall partitions, is the base of a sheet-iron hay tube, which is supported at the height of the manger, and extends to the upper surface of the loft floor, where it is supplied with hay. These tubes have an opening to each stall, so that one tube supplies two horses, the tube being covered at the top, and close, except the feeding openings; and the lattice bottom to them protects the hay from air and dust, and is the most perfect and durable hay-feeding arrangement yet discovered.

The object of the lattice bottom to the hay tubes, is to preserve the hay seed which sheds. It falls into a drawer for the purpose, and the seed thus saved is of excellent quality, and the quantity thus collected well remunerates for the cost of the arrangement. The cupola is octagonal, and has four openings, with stationary blinds, and four with glazed sash, which thoroughly light the hay-loft and feeding passage.

The building is perfectly lighted and ventilated, and exhibits a pretty elevation from any point of view.



CARRIAGE HOUSE AND STABLE.



GROUND PLAN.

stalls being with the head end around a semi-circle of sixteen feet diameter. This circular area is open to the cupola, and being supplied

**Garden and Orchard.**

**Hot-Beds.**

These differ from cold-frames mainly in being mostly composed of partly fermented stable manure, which gives off great heat, and when properly worked and compactly formed continues to do so for a long time, and this with the assistance of the sun, the heat of which is concentrated by the glass of the sashes, enables us to force or hasten the growth of many vegetables much in advance of the natural season, and aids us in growing such vegetables which, on account of the shortness of the season, could not be successfully grown if the sowing of the seed was delayed until the earth became sufficiently warmed to allow them to germinate.

In making a hot-bed select a south-western exposure, protected from the north wind by a board fence or side of a building; then excavate the earth about eighteen inches, and at least two feet larger each way than the size of the frames, as the centre is hotter than the outside, which is exposed to the cold air penetrating and to allow the manure to settle evenly. Commence by putting a layer of cold horse manure six or eight inches in thickness. Begin at one end of the intended bed, and be careful that this layer, as well as the succeeding ones, is spread evenly. Then add a second layer of hot manure of about the same thickness as the first. The mass should then be trampled down firmly; another layer of hot manure may then be laid on, the frames placed in position and pressed down firmly; add another layer of manure, free from litter, about twelve inches in thickness, inside of the frames, as a finish, and put on the sashes to prevent the manure being chilled. Select as fine a day as possible, and let the work be done expeditiously.

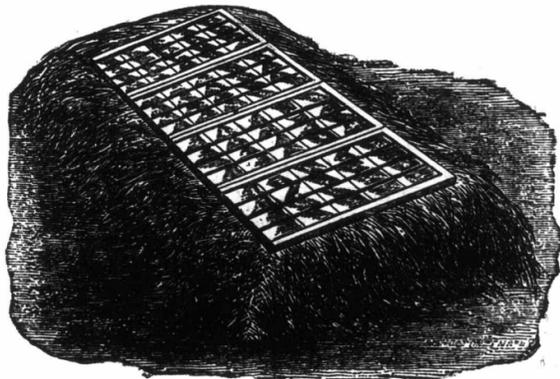
The frames may be made of common boards nailed together, with posts in each corner for a support, and should be at least five to six feet in width and as long as desired, the front board twelve inches high and the rear from eighteen inches to two feet. Cross-ties should be fastened into the front and rear boards just where the sashes will join. The sashes can be bought from any sash factory, and should be constructed of well-seasoned wood, otherwise the heat of the beds will warp the wood and displace or break the glass. Narrow lights of glass 4x6 are preferable, and care should be exercised in glazing that the laps are tight so that water will not get under, and form lenses which would be apt to scorch the plants. The beds being finished, as stated before, the sashes should be placed on at once and covered with straw mats or old carpet, and in case the weather is pleasant the mats may be taken off for an hour or two next day. Two days from the making, under ordinary circumstances, the earth may be put on. This should not be done until the manure is well heated inside the frames. Six or eight inches of leaf mold or good garden soil free from stones, will answer. Two or three days after putting in the earth the seed may be sown. Select a fine day and remove all the sashes and mats. If the soil is

not rich add a few handfuls of bone flour or super-phosphate, and turn over lightly with a digging fork. Be very careful to rake the surface level, for if left at all standing the seeds will wash to the front part of the beds with watering. The seed can be sown broadcast or in drills, cover lightly with sifted earth. Label the different varieties sown. Replace the sashes and toward night put on the mats, except in very cold weather. The mats should be removed during the day. The secret of growing strong plants is, when they are well up, to give an abundance of air at the right time. For instance, if the sashes are opened soon after removing the mats, the plants are apt to "damp off." When the plants are young no air should be admitted for at least one hour after the mats have been removed; and each day give more air to prevent the plants from growing spindling. It is important to have good manure and to have it well worked over before using. To insure success in making a hot-bed, manure as it comes from the stables is generally too coarse, and makes too rank a heat. It should be thrown in a heap, and when heated, which may be known by the va-

farmer, letting alone the particular care required to successfully grow grapes, and the usual varieties of small fruits. This state of affairs must change, as it is changing, for we find intelligent farmers waking up to the fact that fruit-farming pays, that a little care and attention to the garden pay, and to have nice surroundings in the way of plantations of evergreens, borders or specimens of shrubs and other ornamentation, pay as well as being credited with having taste and judgment. The world always respects a man who lives in a fine house, with nice grounds, or in any situation that gives evidence of taste and a love for the beautiful. Now that the country is getting so settled up, railways running on new routes and the increased travel on our high roads, farms are not so isolated or secluded as in times past, and it is now in order to set things in order and pay more attention to our surroundings. All flowering shrubs, no matter of what age, can be entirely renewed into vigorous growth and good shape by being thoroughly cut back.

**THE LILAC.**

we will begin with, the most common flowering shrub to be met with on the farm. Its familiar purple and white plumes of flowers are to be seen at every place in the country, and it is a very beautiful plant, although so common. Being so easily transplanted, and of such a hardy nature as never to be winter killed or troubled with any disease, it has spread all over the country. Its one fault is to sucker rather too freely, and it is difficult to have it grown as a neat, compact bush unless care is used to remove the suckers. This is not much labor in itself, but is usually neglected. Remove, therefore, all the suckers and superfluous shoots. To do this it is necessary to take the soil from around the roots and jerk off all those with roots on, setting them aside for



HOT-BED.

por arising from it, the whole must be turned and forked over. After the manure has served its purpose as a hot-bed it can, of course, be used in the garden. To enumerate all the uses to which the hot-bed can be put would take up more space than we have at our disposal, so will just mention a few: Tomatoes, egg-plants, peppers, cabbages, cauliflowers, cucumbers, etc., these should be transplanted into boxes when about two inches high, or pricked out in the bed. The hot-bed will be found very useful for propagating early cuttings or growing flower seeds for transplanting when the weather is warm enough. In the engraving the frame is banked round with straw, but excepting in very cold places this is unnecessary.

**Flowering Shrubs and How to Renew them.**

BY HORTUS.

Ornamental trees and shrubs, as a rule, receive but scanty care on a farm; in fact, it is often a matter of surprise how they ever get planted at all, and as you observe some of the scraggy specimens of lilacs and almost naked spruce, you wonder who planted them. We know that it is the exception for orchards to receive much attention from the hands of the

planting elsewhere, throwing useless shoots and deadwood on the rubbish pile. Having thus cleaned away suckers and rubbish from around the base, cut back any very long shoots about one-half, observing to round the shrub nicely off. To do this properly leave the growth in the centre of the bush the longest, gradually cutting back shorter as you go around the plant and come to the outer branches. As Lilac wood is very hard to cut, it will be necessary to use a saw, which should be sharp and fine toothed. In cutting back do not be afraid to do it well, or to cut plenty off, as the bush possesses great vitality and vigor, and will completely restore itself in form and beauty, after being reduced to stumps. Sometimes the Lilac becomes infested with tree lice, the same *aphides* which trouble apple trees, particularly the Chinese or Persian variety, which is easily known by the looser growing flower plumes and a finer foliage and branches. To get rid of the lice trim the bush well, and during the first week in June syringe with coal oil and water. If the stock is very thickly covered it will be better to destroy it altogether than try to cure it.

**THE GUELDER ROSE, OR THE STRAWBERRY,**

is another favorite; its snow-white balls gleaming from out the dark background of green foliage is always a feature of the farm

garden. When the plant gets unshapely treat it the same with knife and saw as directed for the Lilac. The Snowball does not sucker, but is very easily propagated by bending down the branches in July and fastening them to the ground, covering the young growth close to the joints of the branches with four or five inches of soil, leaving the tops exposed. In all layering, which simply consists in burying the branches in loose soil in summer, a good plan is to place bricks or flat stones on top of the soil, which has the double effect of keeping the layers in position, besides keeping the soil compact and cool. The Snowball being a viburnum it has the same habits of growth as the other viburnums, and hints as to its treatment are alike applicable to

#### THE HIGH-BUSH CRANBERRY

(*Viburnum Opulus*) and (*Viburnum Lantanoïdes*), or Hoary-leaved Viburnum. These last two named are not so commonly planted, but are very desirable in collections and exceedingly ornamental. The High-bush Cranberry is a native shrub, with showy flat clusters of white flowers, followed by bright scarlet clusters of berries, which hang late in autumn. The berries can be used as a substitute in preserving, for the cranberry. The other viburnum is valuable for coming into bloom the first thing in spring, when flowers are mostly desirable.

#### THE SYRINGA,

as it is commonly called, is the next shrub we notice. Syringa is the technical name of the Lilac. The Syringa, or Mock Orange, is represented in gardens in several varieties, the large flowering and the garland variety and others, is indispensable in collections, free-growing, perfectly hardy and easily propagated; its showy spikes of white flowers highly fragrant, makes it always valuable. This shrub, from its erect-growing habit, stands trimming frequently to make it a respectable occupant of an orderly-conducted garden. The best time to cut it well back is in the fall or spring. The shoots trimmed off it may be made into cuttings, which grow freely and soon make nice plants. It can also be propagated freely from seeds or by divisions of old plants. The Syringas are useful for planting in borders to act as wind breaks, or screens for unsightly places. It may be used effectively as an ornamental hedge plant, by planting with impunity, or any kind of ill-treatment

An old favorite is the yellow-flowering

#### CURRANT

(*Ribes Auria*), with its delicately-scented flowers in early spring. This, too, is a very common, but none the less beautiful, shrub, and from its free, rampant-growing qualities, it is generally found in a disreputable condition. It is very easy kept in control, and may be trimmed into order by cutting the leading branches freely and short. It is easily propagated by cuttings of the wood planted in the spring, or by dividing up old plants. We again repeat, not to be afraid to cut the shrubs we have mentioned and those we will draw attention to, well back. One good cutting will keep them in shape for several years, requiring but a little trimming in the meantime.

I can want something but can't want the  
ADVOCATE. H. McK., Durham, N. S.

#### Farmers as Fruit Growers.

No branch of farming offers better inducements to intelligent cultivators than does the growing of fruit. It is not always successful. If it were the business would speedily be overdone and fruit would every year be as it occasionally is now, a drug in the market. There are probably many more failures than decided successes in fruit growing. The business is so attractive and success appears to be so easy that multitudes engage in it without skill or experience, only to learn their mistake through disastrous failures. When a beginner fails in fruit growing the loss is quite apt to be ruinous. The ordinary farmer does not expect large profits, keeps his expenses down and if failure comes usually loses little more than his own labor. But an enthusiastic fruit grower inevitably spreads himself as far as he can, and if matters go wrong his losses are all the heavier.

That which is most needed in this country is not professional fruit growers making a specialty of this business to the exclusion of everything else, but greater attention to fruit growing by the mass of practical farmers. Such a course will require additional skill and experience, but the farmer will be all the better as a farmer and as a citizen for securing these important qualifications. He is more certain of success under proper training than the specialist, and if there are larger profits from fruit than from grain and stock, the farmer is fairly entitled to them. We assert that the farmer is the more certain of success because if he devote a few acres of his land to fruits he has better facilities for manuring his orchards than he who grows fruit alone. He has better chance for securing cheap labor, as his widely diversified crops enable him to give employment during the entire year, while he who grows fruit alone can only employ by the day and at higher rates.

We wish that all farmers would set apart one, two or more acres for the growing of fruit. Undoubtedly, if one-half or one-quarter of the farming classes did this, prices for fruit would not be so high as now, but the demand for fruits would increase so largely that prices could not long remain below a paying standard; in fact, so few will attempt to grow even for home use that those farmers who do plant small fruits will be sure of a large reward in selling to their neighbors and in supplying smaller villages where summer fruits are rarely now offered for sale. They may be very sure that the demand will, for some years to come grow much more rapidly than will the probable supply. Do not begin on a large scale. Try at first half an acre in small fruits. This will give a superabundance for home use, and if the surplus can be profitably disposed of, the plantation can be extended as experience proves advisable.—[American Cultivator.

Do not fail to make a careful examination of your apple, peach, pear and plum trees, if you have not already done so, to ascertain to what extent borers are troubling them and to put a stop to their mischief. Their presence will be indicated by sawdust-like matter close to the body of the tree at the surface of the ground. Thrust a small wire into the opening, if any appears, and if necessary cut the borer out and then cover the wounds with grafting wax.

#### Window Gardening.

##### Sickly Plants.

It is said that sickly house plants may often be restored to health by watering freely with hot water at a temperature of about 145° Fahrenheit, having previously stirred the soil of the pots so far as may be done without injury to the roots. Water is then given until it runs freely from the pots. After this thorough washing the pots should be kept warm and the plants will soon make new roots, followed by a vigorous growth.

##### Manures and Fertilizers.

Experience has demonstrated that good, well-rotted cow manure is, in all cases, the best for house-plants. Water can be placed on the manure, and the liquid thus obtained can be used to good advantage in watering the plants. But if fertilizers are used, be very careful to apply but a little at a time as here directed, and then use them very weak. For beds or soil, always mix the fertilizer well with sand before using. In watering plants with a liquid fertilizer, be sparing and do not use it too frequently. The best way to apply Peruvian Guano to plants in pots is, to add one heaped tablespoonful of pulverized Guano to a gallon of water. Use about one-sixth of a pint (equal to 4 tablespoonfuls) of this solution to quick-growing, succulent plants, in about 5-inch pots. For larger pots apply more, and for smaller ones less, and not oftener than once in ten to fourteen days. The water should stand in contact with the Guano six or eight hours, occasionally stirring it, before using. It should be applied at evenings, upon the soil in the pot, and not upon the foliage, which should not be spattered with the solution.

##### Insects.

If the plants are kept clean and well syringed you will be but little troubled with insects of any kind. Should they get the better of you, place the plants in a box or barrel large enough to hold them, and moisten some cheap tobacco stems with water. Place the moist tobacco in a tin pan; put this in the centre of the box; see that your plants do not come too close to the pan, or else they may be burned. Now add some red hot coals to the tobacco in the pan and cover up the box. Allow it to stand until all the smoke has disappeared, then give the plants a good syringing, so as to knock or wash off all the dead and half dead insects that remain. This is the mode for the Green Fly or Plant Louse. For a few plants arrange a large paper bag over them, and, having placed a pipe of tobacco under this bag, blow gently into the stem. Repeat one or more times, then treat the same as in box-smoking.

For smoking a conservatory, place the pan of moist tobacco on the floor of the conservatory, with a few bricks under the pan to prevent it setting fire to the floor; put the red hot coals upon the tobacco, when a smoke will rise which will fill the place. After the smoke has disappeared, syringe the plants.

The Mealy Bug is a white, mealy flat-shaped insect. A good way to get rid of them is to paint them with Alcohol with a soft brush. They are found upon ivies, dracenas, etc.

**Sprinkling and Syringing.**

Plants which are syringed with clear water do much better than those which are not. It should be done according to the temperature of the room. In very warm rooms sprinkling may be done daily; but where the room is not very warm, every other day will do.

The way to sprinkle is easily learned. If the window is so fitted as to catch the water that may drip from the plants, you need not move them, but if not, place them in a bath-tub, a sink, or any vessel conveniently at hand, and give them a good sprinkling all over the leaves and flowers. Do not think you will hurt them with the force of the water; the stronger the better will it wash off all the dirt. But before sprinkling, see if they need watering. If they are very dry, water them before syringing. If you use a tablespoonful of Water of Ammonia (Hartshorn) to a gallon of water to syringe with, it will be found still more beneficial.

**Heliotrope.**

The Peruvian heliotrope is known to all as one of the most pleasing and fragrant of greenhouse plants. It is not generally grown in farmers' windows, however, although it grows readily with ordinary culture, and flowers profusely. One of the leading characteristics of the heliotrope is its habit of blossoming the year round. The plant is readily grown from cuttings at any time of the year, and if they be given good soil and careful attention they will give blossoms in a couple of months. The plants may be set out of doors as soon as settled weather comes. Give them plenty of room and good soil. They will bloom all summer. Early in fall pot them in good-sized pots, set in a warm window, keep the leaves clean and give good drainage. Under this treatment the plants will bloom all winter. Few plants are more deliciously fragrant than the heliotrope, and few deserve to be more general favorites. The room in which they are grown should be kept warm, however; about 55° is a good temperature.

**Dahlia Culture.**

Few plants make a finer show than dahlias, well grown, and few flowers are more perfect and symmetrical. The tubers should be taken up in the fall and cleaned of all earth and dried. They may then be stored loose in a barrel or box in a dry, sweet cellar. In February they should be placed in smaller boxes in clean sand and watered frequently. If the cellar is moderately warm they will soon sprout, and by April or May will have made good shoots. As soon as freezing weather is done set the boxes out of doors on the sunny side of the house, and when the weather becomes settled transplant the roots to the beds or borders. Treated in this manner plants will give blossoms the last of June, while they usually are a month or more later than that. Dahlias should have a deep, rich soil. If the soil is light or clayey a good-sized hole should be dug and filled with rich earth. Water the plants thoroughly and tie them up to drab-colored stakes. The white varieties are generally productive of more perfectly symmetrical flowers than the yellow and red varieties.

**How to Grow Mignonette for Winter Flowering.**

Mignonette is a native of Egypt, and is usually grown as an annual, as it blooms and goes to seed in a few months, and is not hardy enough to live in a cold climate; but with a little care a regular succession of plants can be obtained, and this deliciously fragrant flower may be cultivated as a pot plant, and made to bloom all winter.

The seeds should be sown in small pots, in which the plants will flower, as the Mignonette is a tap rooted plant, and will not transplant so easily as plants that are fibrous rooted. Yet by taking up the plants at night-fall, after they have put forth five or six leaves, and by wetting the roots well before disturbing them, and then transplanting them with a little sand about the root, I have been successful in transplanting them. Still, I prefer to sow in pots and pull up the plants that are not needed, as only one or two plants should grow in a small pot.

The best soil in which to grow Mignonette consists of three parts loam, one part thoroughly decayed manure, one part leaf-mold or peaty soil, and one part sand, but it will grow in any common garden loam. Scatter five or six seeds over the soil in each pot, and press them lightly down with the finger. Water them, and put the pots in the shade, or, better still, in a plant frame, with a little bottom heat, and shade them till the sprouts appear. Then let them have plenty of sun so as to grow stocky, and not become wire drawn. As soon as the leaves are well sprouted, thin out the plants, leaving only two in a small pot; but if the pot is large you can plant more seeds in it, and leave six or eight plants to grow. But my fancy is for small pots of flowers for the window garden. Large pots are better fitted for the conservatory or greenhouse.

Stir the surface of the soil with a large hair-pin, every few days, so that it will not become caked and prevent the air from reaching the roots. Mignonette does not require much water, as the plants are liable to damp off if the soil is too wet, but it must not be kept dust dry.

If the sun is very hot at noon-day, the small plants may be scorched, and it is well to shade them with paper to keep the leaves a bright green. When they are four or five inches high, tie them to slender sticks three or four inches taller than the plants, to keep them from growing straggling. If the shoots are pinched out when the plants are three or four inches tall, they will make more flowering shoots and form handsomer plants.

When the buds appear a little weak, manure water once a week will make them bloom in large clusters.

*Miles's Hybrid Mignonette* and *Parsons's White* are very fine varieties for the window garden. Mignonette can be sown in wooden boxes and kept on the window sills in the dining-room or kitchen for winter blooming.—*American Garden.*

SIR.—I like the *ADVOCATE* very much. There are a great many useful implements illustrated and explained, that any handy farmer can make with very little cost.  
Sussex, N. B. B. M. E.

**Veterinary.**

SIR,—I have a three year old mare that has a habit of kicking in the stable. Can she be stopped, and how? I have another the same age that has a hard lump on the outside of her front leg like a splint. It is hard to the bone, and about the size of a walnut. Can it be removed? By answering these two questions you will greatly oblige a subscriber.

Yours truly, S. S.

Delta P. O., Ont.

[1. Place a strap around the foot, below the fetlock, with a small chain about one foot long attached to it. Some recommend to hang a bag of sand behind the horse, so that when he kicks it that it will swing back and strike him; others recommend to place a pole on the manger, have it to pass back at the sides of the horse, say about two feet and a half high, have the end suspended to the ceiling by a rope, so that when he kicks it will fly back and strike him, this will scare him and often break him of kicking. 2. Apply a blister made of pulverized cantharides one part, and lard six parts, once every two weeks, grease the third day after each application.]

SIR,—You will oblige me by giving your advice in your next *ADVOCATE*, in the Veterinary Department, in regard to a bull that has two lumps growing, one on each side, just over the flank, about eight inches from the bottom of the flank. They commenced small, but have gradually grown, the smaller as large as a goose's egg, and the other a good deal larger. He has another under his jaw as large as a turkey's egg. I have opened the lumps, and there has been a considerable discharge of a thick, ropery cream-colored, matter from each side, and the lump under the jaw was a hard gristley substance, no discharge but blood. The lump on the jaw does not appear fast to the bone as some enlargements do on the jaw. There have been other smaller spots that had the appearance of a bloody wart,—one on his foot and two others low down on his flank. They are dying away. The bull feeds very well, but looks rough. He has been in a pasture by himself all the summer. The pasture is low and swampy; but he was fed all the Western corn he would eat since it was fit to feed. The bull is in good fair condition. Please answer in your next, and you will much oblige me.

Newboro P. O.

J. N. P.

[Have the lump removed with the knife, or it would be well to dress the lump with tincture of iodine twice a day. Cut the hair off the lump before using the tincture of iodine.]

SIR,—I have a very nice heifer calf (thoroughbred), and her horns are inclined to turn back, just the tops turn right back. Can you or any of the readers of the *ADVOCATE* inform me how to prevent them turning back.

Switzerville, Ont.

R. N. S.

[Either file or scrape with glass, about twice a week, on the side to which the horns are inclined to turn, and they will grow in the opposite direction.]

## Correspondence.

NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post-Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. 3. Do not expect anonymous communications to be noticed. 4. Mark letters "Printers' Manuscript," leave one end open and postage will be only 1c. per ½ ounce.

We do not hold ourselves responsible for the views of correspondents.

## Forest, Timber, Roads and Snow Drifts.

According to the *Scientific American* the largest match factory in the world is at Jonkoping, Sweden, and is supplied with timber from a forest divided into fifty sections, one section of which is cut and replanted with young trees every year, thus insuring a continuous supply.

How long will it be till our people awake to the fact that a timber famine is imminent in many parts of Canada, even of Ontario.

Thousands of fine trees, three to eight inches through at the butt, are being cut down, and sold for less than \$3 per cord, that might in a few years make timber, if steps were taken to preserve them. It is little use for the Government to give premiums for tree planting by roadsides, while people are allowed to cut down the natural growth, shelter belts on the roads, as they do here whenever they care to do so.

Close to where I write there is a natural shelter of pine and cedar, on both sides of a main road, nearly a quarter of a mile long, liable to be cut down at any moment by a road company whenever it may decide that sunlight and wind are cheaper than gravel, and the fields can be had for winter roads in lieu thereof. Had this ten miles of road the same shelter for its whole length, one hundred thousand dollars would not be too high a price at which to estimate its benefit to the community.

Is it not time that the Government took steps to prevent the clearing of all poor hills lying at too steep an angle to be cultivated up and down, and thus prevent the ruin of good lands at their foot, by being covered by the wash from the hills, as well as the drying up of the country? The time is now approaching, when the shelter belt question, as to drifting roads, will no doubt become prominent in the newspapers. There are many advocates of wire fences just now; more than I think there will be ten years hence. A good stump fence is a better protection from drifts than a fence of rails. One man last year wanted the roads made a rod narrower, the rod of land to be given to the farmer as a premium for building wire fences beside the roads. It is this very land hunger that is the cause of much of the trouble with snow drifts; because in many places the farmers have got the rod spoken of already, leaving the road only three rods wide instead of four. I venture to affirm that were the roads six rods wide instead of three, we should hear very little of snow drifts.

One year we vote fences a nuisance, because the snow drifts near them smother our fall wheat, the next year they are a blessing, the wheat sheltered by them being the best in the field. So we mulch our wheat this year and save it, and mulch it next year and smother it. X.

## Sheep Rot—Tape Worm.

SIR,—About the beginning of August last I heard through reliable sources that the lambs were dying at the Model Farm, Guelph, and that nothing could be done to check the disease, which was given out as the "tape worm." Having had some experience with sheep myself, and having reports both from practical and professional men in the United States and England, on diseases of sheep, I felt fully convinced that the Model Farm had become the seat of that disease which has proved so fatal among sheep, especially lambs in England, United States and Australia, and which is commonly known as the English "sheep rot." I wrote to Professor Brown asking the symptoms of the disease of his sheep, and told him my experience, and advised him to put the sheep on high dry pasture, where cattle had eaten off close, and to put plenty of salt in the feed boxes and give pure well water, and the disease would be checked at once. I asked him to write and give the particulars of the disease, when I would give him the remainder of the treatment, which is said by practical men to be the only remedy for the disease "sheep rot." Mr. Brown answered my letter promptly, and said that he had succeeded in exterminating the disease tape worm nearly three months before the letter was written, Aug 27th, but failed to give me any of the symptoms, or any information about his treatment of the disease. Since then I have read a statement made by Mr. Brown in another journal, giving the particular symptoms of the "sheep rot." After reading this statement of Mr. Brown's, I felt sure that I had not been mistaken about the nature of the disease, so I determined to visit the Agricultural College, and if possible make a post mortem examination of a sheep. I visited the farm on the 11th of December, and the sheep showed every symptom of the "sheep rot." I also examined the fields on different parts of the farm, and to judge from what I have experienced, and from the various reports, that the grass fields of the Model Farm are full of the eggs of the disease, waiting to be eaten by any sheep that should chance to be put in them to pasture next season, and thus continue the disease. While at the farm I wished to buy a sheep and kill and examine it for my own information and satisfaction; but Mr. Brown said he was very sorry that they could not spare a sheep, and had no time to wait on me. I learned while there, through reliable sources, that about sixty lambs had died, and that the remedy recommended by me had been the actual check against the raging of the disease. Professor Brown remarked to me that it was astonishing how soon a check of the disease was made by so simple a remedy (putting the sheep in the short pasture), showing that he had treated the sheep according to my directions to him in August. Now, it is my opinion, and the opinion of practical men, that the sheep on the Model Farm have all been affected with the old English "sheeprot," and the disease, through the droppings of the sheep, is spread all over the farm, and that any sheep sold or taken off that farm since June last will be likely to spread the disease among any other flock that they should chance to be taken into, and thus spread the disease all over Canada.

I have had the tape worm in my flock at different times. The sheep get the eggs of tape worm off the grass. We have never considered the tape worm anything dangerous, and could always exterminate it by feeding chimney soot in salt or chop.

For fear of taking up too much of your valuable space I will close, hoping to be able to give you a full account of the disease, with all its symptoms, and full treatment for it, in a later issue of your paper.

Thanking you for this space in your valuable paper,  
I remain, yours &c.,  
OXFORD FARMER.

SIR,—How can I get four Russian Mulberries without getting new subscribers? F. W. C. Rosseau, Ont.

[By sending in the name of one new subscriber to this journal, together with one dollar, and the plants will be sent you in the spring. This also answers T. P. J., of New Glasgow, N. S., and others.]

SIR,—Would it be safe to cord a ram at this season of the year? I want to make early mutton of him. R. W. Germantown, Albert Co., N. B.

[If the animal is kept in a warm place after the operation to enable the wound to heal without inflammation setting in from cold, it would be safe.]

SIR,—I would like you to answer a question through the columns of your valuable journal: Why were the Ayrshires barred out from the show of fat cattle in Toronto, when they are the equal of any breed for beef raising, taking the amount of feed they consume into consideration, and the superior of any for milk and butter? E. W. W. Hamilton, Ont.

[We are unable to give the required information. Perhaps the Secretary of the Agriculture and Arts Association will explain.]

SIR,—It is with great pleasure I continue the best paying investment that I know of, namely, one dollar for the *ADVOCATE*. I would not be without it for five times the cost. I send two samples of wheat grown near here. What are they, and what are they good for? Will they do for stock when crushed with oats and barley? Please answer in next number of *ADVOCATE* and oblige E. M. K. Pembina, U. S.

[Of the samples of grain submitted one is a Hybrid wheat, the other is white rye. We should think they would make excellent feed for stock when crushed and fed with the other mentioned grains.]

SIR,—Farmers, see to this information and act wisely: If you have posts to set for fencing in the spring, set them all with the top ends down, and they will not draw out with frost, if they are set a reasonable depth; and for a crooked rail fence lay it on blocks, and it will never settle down in the spring from frost-heaving. Recipe for the cure of the bite of the rattlesnake, if taken immediately after being bitten: Bathe the wound with a strong tincture of Lobelia, and take five to six drops from one to three times, at intervals of three to five minutes, and all danger will be over in one-half hour or an hour at farthest; and the same will effect a permanent cure for hydrophobia, or the bite of a mad dog, cat, or any other vicious animal. And the common toad plantain will also cure the bites of spiders by applying the juice of the fresh plant on binding on the smooth side of the leaf, greased with a little fresh hog's lard. Apply two or three times in twelve hours and all is well. Vittoria P. O., Ont. S. F. B.

SIR,—The ADVOCATE is certainly the paper for the farmers of the Dominion. You do not forget the Province of Nova Scotia and the Valley of Annapolis and Kings, where the Nonpareil apple grows, you referred to in last April number. The Nonpareil requires a moist (not wet) loamy or heavy soil; light dry soil does not do for them here. They seem to flourish best near the dyked and salt marshes. Would not advise an extended culture of them till tried, though I think every orchard grower should have one or more trees of them for home consumption when other varieties are gone. Please do all you can for us humble apple-growers down here.  
I. J. S.  
Berwick P. O., N. S.

SIR,—A correspondent of yours, G. C., of Rosemont, Ont., wishes to know who can beat 40 lbs. for black oats. I raised last year white potato oats that balanced the scale at 47 lbs. to the bushel. This without any extra cultivation, and a year unparalleled for drought in this part of Manitoba. The oats were sown on the 1st of May and cut on the 23rd August, or fifteen days before the destructive frost that bids fair to break down many a new settler.  
Douglas P. O., Man. R. B. U.

SIR,—Please would you let me know the price of the eggs of the Aylesbury and Rouen ducks for one dozen, to come down in the spring. Cherry Valley, P. E. I. J. T.  
[We are unable to state the price. Consult our advertising columns, in which will be found the names of several prominent breeders.]

SIR,—Please answer the following questions through the ADVOCATE, and oblige an old reader of your paper. 1. Can quinces be profitably cultivated in eastern Ontario? 2. Are cattle and sheep (being ruminants) benefited by feeding oftener than twice a day? 3. Is a feed daily of carrots injurious to horses, as some recommend feeding but once or twice a week. 4. If rape is sown early in spring can it be cut several times during the season for soiling purposes.  
J. C. McL.  
Dalkeith P. O.

[1. There are very few quinces grown that a general opinion is difficult to obtain, some contend that they have grown profitable crops, others maintain that they are not a success; but the specimens exhibited at our fairs is sufficient evidence that they can be grown, but whether profitably or not, we are unable to say, but would like to hear the experience of some of our readers. 2. The fact of an animal being ruminant has nothing to do with its daily rations. Take ruminants in their natural state and they are continually feeding. The best results in feeding are obtained by always having food before the animals. 3. A daily feed of about a peck of carrots a day will not prove injurious. Many farmers feed them to horses instead of oats. Besides their medicinal qualities they are highly nutritive. 4. If rape is sown as soon as the frost is out of the ground two cuttings can be had and afterwards pastured.]

SIR,—Would you kindly advise me what branches of study would be the most useful to one who is going to learn the carpenter trade. I am trying to self-educate myself, and would like more particularly to study those branches that would be the most useful to me in learning my trade.  
READER.  
Pt. Rowan, Ont.

[Study the common English branches; you would be greatly benefitted by a knowledge of geometry, say the first book of Euclid, especially the 47th proposition in that book, which demonstrates that the square of the hypotenuse of a right angled triangle is equal to the square of the other two sides. This will be useful in cutting rafters and braces. In arithmetic be sure and learn how to extract the square root, and perform duodecimal multiplication.]

SIR,—Would you kindly inform us through the columns of your valuable paper, where we could procure a good incubator.  
S. & L.  
Dominion City, Man.

[Manufacturers should use our advertising columns.]

SIR,—If you will take the trouble to advise me as to the best book on your list for an amateur pioneer farmer in the North-west, I will be glad to remit for it on hearing from you. I would like it have information about stock and poultry raising; particularly the latter.  
Regina, Man. J. J. C.

[Allan's book of the Farm will suit your purpose. See our list of books. This will also answer G. G. A., of Grenfell.]

SIR,—Which is the best season of the year to remove old grape vines.  
W. A.  
Howard P. O.

[Directly the leaves have fallen in the autumn; but they can be removed early in the spring, before the sap begins to flow.]

SIR,—A friend of mine is about to try an experiment of raising a thorn hedge, and wants information if they can be got at the London Nursery. If so, the price per 1000, time best for planting, and all the information in regard to raising the plants, etc., will be thankfully received.  
J. M. S. H.  
London, Ont.

[The black thorn is what we presume our correspondent means. If so, it has not proved a success in this country. We should think that any respectable nursery could supply the plants, and from whom you would get the necessary information as to raising the plants. The best time for planting is in the spring.]

SIR,—Please tell me the way to raise grape vines and strawberries from the seed, and whether to plant the seed in the spring or fall.  
Collinville P. O. W. C.

[It is not advisable to propagate either grapes or strawberries from seed, as no matter how fine the fruit from which the seed is obtained, the plants from such seed will be much inferior. Far better to grow from grape cuttings and strawberry runners, which can be had almost for the taking away, or be obtained very cheaply from nurserymen. However, if our correspondent is desirous of growing from seed he must first soak well the seed of the grapes in tepid water, and sow in boxes, which should be placed in some warm place to start, and then transplant the young vines into the open air, when all danger of frost has disappeared; or, they can be sown out of doors in spring. Strawberry seed can be sown in the same manner, excepting the soaking of the seed.]

SIR,—Which is the better to use, green bones or dry ones? How much are ground bones worth, and how many pounds is a good coat per acre? Are there enough fertilizing properties in sulphuric acid to pay for to use it on bones, or is it best to get a mill? We can get only a limited supply of ashes. How much per bushel are good unleached ashes worth? How much would you advise me to put on one acre of bones which has been eaten with acid?  
Oshawa P. O. W. F.

[It is immaterial whether green or dried bones are used. Ground bones are worth about \$30 to \$35 a ton. At least two hundred pounds per acre should be used in either form. The fertilizing properties are not in the acid itself; it is the chemical agent for reducing the bones to a more available shape for plant food. For manure, unleached ashes are worth from 15c. to 25c. per bushel, according to location and the crop to which it is intended to apply them, containing no nitrogen; the best results are obtained by their application to potatoes, clover and other potash plants.]

SIR,—I have some questions to ask in regard to the wheat failure last year. Do you think it was the severe cold that killed it.  
St. Catharines. P. N.

[It was doubtless caused by a combination of circumstances. First, the unusual drouth in the fall and the consequent lateness of the sowing, so that the plants did not receive sufficient root strength before the winter set in. Second, The snow was unusually deep, and when it went away in the spring there were long spells of alternate freezing and thawing, followed by an excessively wet spring and summer.]

SIR,—I have 28 calves; they are full of lice—black and white lice. If you can send me something that will destroy them I would be very much obliged to you.  
H. C.  
Johnson's Mills.

[The lice are caused through want of attention and cleanliness. We are frequently answering this question. The first thing is to keep the stables clean, and the animals in good condition. The natural oil exuding from the skin of well fed cattle is sure death to insect life. You can apply sulphur ointment mixed with a little coal oil; arsenic acid, about 10 grains to a quart of water; blue stone and lard mixed. The cures are numerous, but an ounce of prevention being better than a pound of cure, it will be less troublesome to feed your animals well and keep the buildings clean.]

SIR,—I don't like to flatter you too much, but like your paper very well. Every farmer ought to take it. I think most of them do in my neighborhood. I think your opposition to the Model Farm and Agricultural College at Guelph, is scarcely the thing, that is, if you think such an institution not necessary in the interests of the farmers of this Province. But if your opposition arises from the bad management of the institution, or of its being made use of for political party purposes, then, I would say, do all you can to reform abuses, but don't do anything to destroy its usefulness. The present professors are men well qualified, I think, for the position they fill. I hope the Agricultural College will continue and prosper in all its branches, and that it will be so managed that it will accomplish the purpose for which it was designed, viz., the improvement of agriculture, breeding and feeding of cattle, &c., in this Province.  
J. W.  
North Dumfries, Ont.

SIR,—I have a fine mare, about nine years old; she is bad with the heaves; would it be advisable to put her to a horse in the spring or not?  
ATHOL.  
Tide Head P. O., N. B.

[The fact of the mare having the heaves will not affect the progeny, as the disease is not hereditary.]

SIR,—The mulberries you sent me were all doing well up till fall, growing from ten to fifteen inches. I, of course, don't know how they will stand the winter.  
W. D. P.

SIR,—Please inform me in your next issue of the ADVOCATE whether bran and meal should be fed to milch cows dry, or moistened with water?  
T. N. M. N.  
Charlottetown, P. E. I.

[If used with succulent food they may be fed in a dry state; but otherwise it is desirable to dampen.]

SIR,—As I secured some locust pods this fall, would you be kind enough to tell me how to proceed with them, as I desire to grow a hedge fence. 1st. When should they be planted, and how? 2nd. How long will it take to make a fence?  
C. W. N.  
Hamilton, Ont.

[1st. For a most rapid development the seeds should have been planted when in a soft state. Soaking the seed this spring will hasten germination. 2nd. About three or four years.]

SIR.—Would you please answer through the ADVOCATE the following questions, viz.: 1st. Which is the most suitable for an orchard, a northern or southern slope? 2nd. How far should apple trees be set apart; will ten feet be far enough each way? The agent from whom I have purchased recommends close planting. 3rd. Will frosted corn make good ensilage? 4th. What is the proper way to press ensilage in a silo? BLUE NOSE, Halfway Brook, N. S.

[1st. It greatly depends upon the nature of the soil, and the varieties of apples. The later kinds, such as Northern Spy, &c. on equal lands would do better on a northern slope, and on the contrary the earlier varieties mature better on a southern slope. For a light soil a northern slope is preferable, and the opposite for heavy clay. 2nd. From 25 to 30 feet apart, ten feet is altogether insufficient. 3rd. It will make ensilage, but will not make good ensilage. 4th. There are so many ways, the most recent methods of pressing are the screw and the lever. If the application of these is not convenient, use any heavy material, such as stones, &c.]

SIR.—Will you be kind enough to answer the following questions in next number: Can cattle be brought over from the States now for breeding purposes? If so, where would they have to be quarantined? SUBSCRIBER.

Byng P. O.

[Cattle for breeding purposes can be brought from the U. S. subject to a quarantine of ninety days. The entry ports are Point Levis, Quebec, and Point Edward, Ontario.]

SIR.—Please let me know where I can get a few of the potatoes called St. Patrick, and the Beauty of Hebron? Also let me know how I could build a place for turnips in a straw mow, so that I could build straw on the top of them? In one of your papers you recommend Tragacanth for putting on harness, but did not say how it was to be used. S. F. H.

New Annan, P. E. I.

[1. Any seedman will furnish you with those varieties. See our advertising columns. 2. Do not attempt to keep your turnips in a straw mow. 3. Gum Tragacanth is dissolved in any oil heated with lampblack for harness.]

SIR.—I have a field of black mucky land, it is well drained with open ditches  $3\frac{1}{2}$  feet deep. I have grown some good crops of potatoes on the field, but grain don't do well; oats come up well, and grow rapidly until they begin to come in the shot blade, they then fall down and don't head good. The straw is soft and purzy; the muck is from 1 to 4 feet deep. Would lime be good for this field? It would cost me 20 cents per bushel. Will it pay to give such a price? Would a top dressing with sandy loam do any good? Turnips grow a large top on this field, but very small roots. This field is also very frosty. What can I do to help this field, or what kind of a crop will pay the best to grow in it?

[Your soil is rich in organic matter, but your black muck is not available to certain plants, not having the proper proportion of nitrogen, potash, and phosphoric acid, the three elements of plant food. In black muck you have an excess of nitrogen, and without a corresponding ratio of potash and phosphoric acid, and hence to supply this, and to make all the elements available, a dressing of about 60 bushels of lime to the acre would bring these elements into play. Why your straw falls down is from the fact that there is not sufficient inorganic or ash element in your soil, hence the condition of your straw. Lime is certainly what your straw requires, but 20 cents per bushel is rather high for agricultural purposes; but at this price, in a succession of crops (one lining would do for four or five years,) would pay. But if you can obtain ashes either leached or unleached, put them on, they contain a large amount of lime, and also potash. You may get leached ashes for a mere trifle. Try them. If you lime your soil, any crop may be grown, but especially roots and grasses.]

[Several interesting communications are unavoidably crowded out of this issue, and will appear in our next.]

## Farmers' Clubs.

### Tim Bunker on the Farmers' Club.

MR. EDITOR:—I have not much to say lately about our farmers' club, that our minister, Mr. Spooner, and a few of us started a few years ago. Well, you see, at first the thing didn't take very well. It looked kind of bookish, and men accustomed to the plow handle didn't exactly like to come to the school-house, where we generally hold our meetings in the winter, to learn farming. Some of them called it Mr. Spooner's school, and some Tim Bunker's pew. In the summer time we meet around at the farmers' houses, generally once a month, some Saturday afternoon, so as to look at the crops and stock, as well as to discuss questions. Well, by a little coaxing and management, we have got most of the young farmers in the neighborhood of the village interested, so that we frequently have twenty at the meeting, and that makes about as large a company as a plain farmer cares to talk to. My immediate circle of friends are among the most punctual members. Mr. Spooner and Deacon Smith are always on hand to keep things straight; Seth Twiggs comes up to see what he can through his clouds of smoke; Uncle Jotham Sparrowgrass limps around with his invaluable scraps of experience, and Tucker, Jones and Jake Frink, drop in to see what new exercise is going on in Tim Bunker's pew.

The club is getting to be a good deal of an institution, if not a great one. The last topic talked up was "How to Make Farming Profitable." We had a stranger into the meeting, Mr. Pinkham; and he took the ground that it was not profitable, and for his part he did not believe it could be made to pay. He said "he had got a little property together, but he did not make it by cultivating the soil, though he had worked at it thirty years steady. He had a farm given to him to start with, and if he had done nothing else but farm it, he believed he should have run in debt every year. He had worked in the winter and on rainy days at shoe making, and all that he was worth, over and above what he inherited, was owing to his trade."

Uncle Jotham guessed Mr. Pinkham was about right, if men managed their farms in the old way. He had known a hundred farmers or more, on Long Island, and there wa'n't a half dozen of them that got ahead any, until they begun to catch bony fish. This made manure mighty cheap and plenty, and a man must be a fool that couldn't get big crops with manure a plenty. But to have nothing but barn-yard manure, and next to none of that, he didn't think a farmer could mor'n make the end of the year meet.

"I don't believe he can do that," said Jake Frink, "unless he has better luck than I have had. I've worked hard as an Injun on my land, for well nigh forty year, and I hain't got so much land as when I started. I hev ben allers comin short at the end of the year, and every now and then, have had to sell off a chunk of land to some lucky nabber. And it allers happened, that I sold jest the best lot I had, but didn't see it till arter it was gone. That horse-pond lot, that didn't use to raise anything but sour-grass, bulrushes, and hardhack, now

bear three tun to the acre of first-rate herds-grass. Some folks make farming pay, but I never could. Some how it don't run in the blood."

Mr. Spooner said farmers did not have capital enough to carry on their farming profitably. No man can be successful in business without capital. The merchant has his years of discipline as a clerk, and earns a small capital before he sets up for himself. But the farmer often runs in debt for his farm, and has hardly money enough to buy his stock and tools. This keeps him troubled all the time. He is afraid to hire help, to purchase such new machines as he needs, and to make those improvements in his land which are essential to profitable husbandry.

George Washington Tucker thought there was a good deal of truth in Mr. Spooner's doctrine. "I don't know zactly what the parson means by capital, but if he means money, he's jest right. I never had a red cent to begin with, and that's the reason I hain't got along no better. As they used to say in sifering, 0 from 0, and 0 remains. It's jest so in farming."

"Them's my sentiments," said Jones. Now the fact is, both Tucker and Jones are lazy, and never did a good day's work in one day, in their whole lives. The cipher lies in the persons of those two individuals, and not in their purses. I didn't say that in the club; if I had I guess I should have spoke in meeting.

I did have to say, however, that I thought the trouble about bad farming lay a little deeper than the want of capital or the want of labor. "The want of brains, I guess, lies at the bottom of all the unprofitable farming. What is the use of a man's having money, if he does not know how to apply it to his business? What is the use of a man's having labor, if he does not know how to direct it, so as to make it pay? Farmers do not read enough about their business, and reflect upon it. I know of a dozen farmers who have from one to five thousand dollars in the bank, and they have occasion for the use of twice that sum in order to make their farms productive. Capital in the bank only pay six or seven per cent. In the bank of earth, if wisely invested, it will pay ten per cent. I have got fifteen per cent. on what I have laid out on the horse-pond lot."

"Above all expenses?" asked Mr. Spooner. "Yes, above all expenses, and I expect to get it for years to come. I do not find it difficult to make land pay the interest on three hundred dollars an acre, and any man who will read and digest the FARMER'S ADVOCATE can do the same thing."

Well, I guess they'll all find it out by and by. Just look at Deacon Smith's new under-drained ten-acre field, where he harvested forty bushels of wheat to the acre this summer. Look at Seth Twiggs' garden, with the tile in, and sub-soiled. He raises a hundred dollars' worth of stuff where he used to raise less than twenty. Look at Jake Frink's new watering trough in his yard, and Uncle Jotham's drained muskrat swamp, and new barn cellar; and, to cap all, my reclaimed salt marsh, cutting three tun of hay to the acre. I made two thousand dollars by that operation, and I might have thunk and thunk my brains out, and I never should have thought of that if it had not been for the paper. Improvements are going on all over the town, and it is because they read the FARMER'S ADVOCATE. I can tell just what farmers read it by the looks of the farms and buildings. You see then, my recipe for getting rich by farming is, to take the paper, read and digest inwardly, and apply outwardly.

Yours to command,  
TIMOTHY BUNKER, Esq.

Pet Stock.

A Dickey Bird Society.

An excellent example has been set us by the children of the North of England. No less than 80,000 children have joined the Dickey Bird Society. The members of which are pledged to feed and protect birds all the year round. We would earnestly commend this to the notice of parents and school teachers in this country.

The Rabbit-house, Hutches, etc.

The rabbit-house should stand upon a dry foundation, and be well ventilated. Frequently a spare loft, or some such place, will be a very good place. The huts, or hutches, should be placed on stands about three feet high, around the sides of the rabbit-house. Each hutch intended for breeding should have two apartments, a bedroom and a dining-room. The floor of the hutches should be planed smooth, that the wet may run off, and a common hoe, with a short handle and a short broom, are convenient for cleaning the hutches. The breeding-hutches should be about two feet high, two feet six inches deep, and four feet long; about one-third of this length should be separated from the other by a panel and arched doorway, separating the dining from the bedroom. Above this there should be a sliding door, which can at any time be put down, so as to shut the doe into either of the compartments, as occasion may require. The edges of the doorway should be cased with tin, as should also the edges of the feeding-trough, and any part that the rabbit can get at with its teeth. The front of the hutch has two doors, one of which, belonging to the inner apartment, is made of boards, and the other, belonging to the feeding-room, is open, having wirework in front; both these doors are fastened by buttons in front, but open in a contrary direction. The bottom of the hutch should have a long narrow piece of wood in front, below the wires, at B, which should be movable, and this, upon being removed, will permit an iron rod or scraper to be introduced for cleansing the hutch from time to time of any loose matter collected in it. In placing the hutch on the stand, it should be set a little aslant backward, and there should be a few holes drilled at its back partition, for the purpose of letting all liquid pass off as soon as voided.

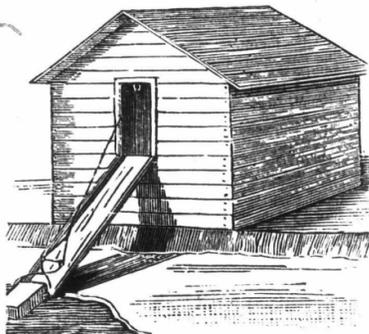
THE BUCK'S HUTCH.

It is the plan of some persons to make the buck's hutch different in every way from that of the doe, and to place him in a small, inconvenient place, with the back rounded off in the form of a dutch-oven, in which he has little or no room for exercise. This is *bad* in every respect. The buck should have a large roomy hutch, with a partition, and a back room into which he can retire when he pleases; for it is a great comfort to him to be able to hide himself, and to skip in and out of his little chambers. His hutch ought, also, to be higher than that of the doe, and it should have a little trough for his dry victuals, and a little iron-wire rack on one side for his green food, if you wish to make him very comfortable. It is a bad plan to put hutches on the top of each other, and the buck's hutch should always be put out of the sight of the doe.

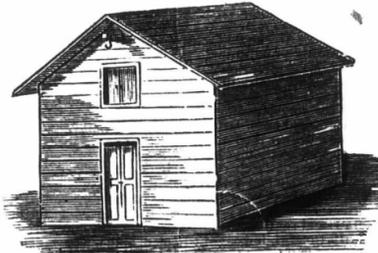
Hints and Helps.

Harvesting Ice.

We have had several enquiries respecting ice houses and their construction. We here present our reader with a cheap and convenient



house and apparatus for cutting and housing. We need hardly urge the importance and necessity of having a good supply of ice on hand in a farmer's family during the hot summer months, for keeping and preserving butter and meat, and for general use in a household, when ice at this season can be had for merely cutting and drawing.



The majority of farmers in this country are in a position to build a cheap ice house, and if every farmer cannot have one, a few farmers can combine who live near each other.

A cheap ice house may be built of strong boards, slabs, or even logs. The floor may be of any material—slabs or boards with about a foot of saw-dust on the bottom. In filling your house leave a space eight to twelve inches all around,



and when filled pack saw-dust tightly all around. Straw may be used, but this requires a larger space, from the fact, that it is not such a good absorbent. The top of your house after filling should be filled with about a foot of saw-dust or straw. For cutting the ice a common cross-cut saw with only one handle on Any blacksmith can make a pike pole for pulling the block out as represented in the cut.

I am much pleased with the *ADVOCATE*; every number is getting better.  
Inverness, Ont. W. H.

The Household.

Shut the Door.—Ventilation.

BY ANABEL C. ANDREWS.

Many people have a bad habit of leaving a door open behind them on entering a room; perhaps because they feel bashful and want a chance to get out quickly if their courage fails at the last minute. Unless one opens a door to tell a man his house is on fire, or something equally terrible, let me beg of you to close the door behind you, if your stay doesn't exceed ten seconds. In a house warmed by a furnace, this caution is of course unnecessary, since the halls are supposed to be as warm as the room; but in the average family sitting-room how many feet are aching with cold at this moment from some one's carelessness in leaving the door open. Perhaps they do it for ventilation; some people believe in that way.

Talking of ventilation with an old gentleman the other day, the writer said: "It is almost impossible in the country to find a house where one can enter the family sitting-room from the outside pure air, without being nauseated by the mingled odor of kerosene smoke, from wicks turned down to save oil, and different breaths which rush to greet one, from want of proper ventilation."

"Yes," he assented thoughtfully, "that's true. Now, to our house, when a room gets so that it feels close, we open a door into a room or hall, where there ain't no fire, and in this way we get fresh air."

I didn't say anything, but I "kept up an awful thinking!" Because the air was cold and rushed in around the feet, forcing the heated air to the top of the room, he fondly imagined he was ventilating his room!

Another way of ventilating, equally absurd, though not so injurious to health, is to insert a board at the bottom of the casement, which lifts the sash, making a space in the middle of the window. "But," you say, "that prevents a draft from blowing on any one, and lets in the fresh air." Just so—though it lets in precious little—but will you please tell me where the impure air goes to? A room, without any modern arrangements for ventilation, can not be perfectly ventilated except from a window lowered at the top; and this will not answer in very mild weather, but it should be raised a trifle at the bottom also.

Keep the feet warm and the head cool, and don't imagine because you let in a stratum of cold air from another room, that it is always fresh air, for many times it is exactly the reverse.

Still another way of ventilating; to have a caller rise to go, whom you attend to the door, where he stands for ten minutes or more talking. This can't be excelled for ventilating the lower hall.

ITALIAN CREAM.—Take one pint of cream and half a pint of milk, make it hot, sweetening it to taste, and flavoring it with lemon peel; beat up the yolks of eight eggs, beat up all together, and set it over a slow fire to thicken. Have ready an ounce of isinglass melted and strained, which add to the cream. Whip it well and pour it into the mould.

## Family Circle.

## The Seamstress' Story.

Idly she sat in her rocking-chair,  
A woman of forty, pale and plain,  
There were streaks of gray in her scant, light hair,  
On her brow deep furrows of care and pain.

Needle and thread from her hands had dropped,  
The hands that nervously clasped and clung,  
As with voice that faltered and often stopped  
She spoke of the days when she was young.

"Yes, it's twenty years since I saw him last—  
Twenty years since we said 'good-bye.'  
I've heard folks say time goes so fast—  
They couldn't have known such years as I.

"Twenty years! I remember yet  
Just how he spoke and looked and stood  
When he said, 'Now, Mary, you mustn't forget  
All you have promised'—as if I could!

"There'll be many to tempt you away from me,  
Never heed them, whatever they say;  
Wait for me, Mary, wait patiently,  
And think of me always, by night and by day.

"Never mind if the years are long,  
I shall write when I've time to spend,  
I shall be true, and you must be strong,  
And look to the end, Mary, look to the end!

"One thing more, Mary, give it due heed,  
Bear your joys and your sorrows alone;  
Then when I come I shall feel indeed  
You have been always and truly my own."

"So he left me—'twas hard to bear—  
My lonely life with never a friend,  
But he wrote, as he said, when he'd time to spare,  
And I treasured his words and looked to the end.

"I thought of him always, by night or by day,  
Just as he bade me; his will was my law;  
And I asked no help on my weary way,  
Though often my heart was sad and sore.

"Waiting thus for the years to pass  
I never counted them as they rolled;  
Perhaps if I'd cared to look in the glass  
I might have seen I was growing old.

"And so, when fifteen years had gone,  
He sent for my picture from over the sea;  
Ah! when I sent it, I might have known,  
If I had been wise, what the end would be.

"By the very next mail a letter came—  
Not his—he couldn't be so unkind,  
But his sister wrote and he signed his name,  
To tell me that 'John had changed his mind.'"

"You see," she said, "you are old and plain,  
Too old for John's wife, to tell the truth—  
I laid down the letter and cried with pain,  
For hadn't I given him all my youth?"

"Well there was nothing to do or to say;  
John had a right to change his mind;  
I just went on in the same old way,  
Only—I left my hopes behind.

"There were some that tried to comfort me then  
Saying, 'Best be rid of a fickle heart,'  
And 'John was no better than other men,'  
But that never seemed to ease the smart."

So she ended her simple tale,  
'Twas an old, old story, told oft before,  
For one heart will trust and one will fall  
Until time and change shall be no more!

E. T. CORBETT.

## "Cousin Betsy."

"So you really mean to ask her. . . . Oh! And the house will be full, mother. Where can she put up? Any little corner will suit me, can't you hear her sweet, insinuating voice saying? Oh, was there ever such a bother in the midst of the holidays!"

Mother looked shocked, tried to frown, told Charlie he was ungrateful for Cousin Betsy was so fond of him, so obliging and kind—how could he!

"Kind! Oh dear, she is indeed, smother's a fellow with it. I think I would rather take a kicking than go a long walk with the dear old thing."

"Oh! he! you naughty boy, and she is so entertaining, so useful, so . . . ." pleaded mother, striving hard for a few more epithets that would more distinctly describe her charms, but smiling at the wry faces she saw all round the breakfast table.

"Well, what can't be helped must be endured," philosophically muttered Jane. "If you must get over a bit of duty, why let it be done quickly, only I hope she won't try to teach me tatting or croquet. I really can't stand those big fat fingers pawing me, and the eternal 'one stitch in the loop, two down.' I hate work and all the old rubbish she indicts on one. Dear mother, you shall enjoy her all to yourself, and she shall have nice little games of chess with papa." But the long growl of "Humph," which proceeded from the paternal lips, and the terrible push and bang he gave his chair, made his chance in that line very small.

However, Cousin Betsy and her charms were forgotten for a while. Guests, rare and charming, were coming, and we young ones had plenty to occupy both hands and

heads in the fascinating preparation, arranging the drawing-room, filling vases with fresh flowers, setting to a nicely toilet tables, decking each with an appropriate bouquet, Charlie most maliciously choosing the prickliest roses for "fair Elizabeth;" bringing the croquet sets to their proper places, setting garden chairs in happy positions, and, lastly, trying our voices that we might come out in full force at the dinner party next evening and astonish the company with our brilliant performance. How absurd we were, laughing till we cried at Ned's mimicry of dear Betty, as he often called her.

At six o'clock she came—mother fetched her from the station in the pony-chaise.

I was dressing for dinner, and saw her from behind the blind. She was more natural than usual, as there was none to admire her attitude. Ned, who was rolling the gravel, rushed behind a tree and twisted himself grotesquely round, to escape detection. Charlie and Jane, who were at their game on the croquet lawn, flew through the open window and were lost to sight.

"Come down, Nelly, quick, the fly has come and Edith is there; she is stunning! There, she is getting out and we not there—oh dear! You old slow coach, can't you come?" I scrambled on my dress as fast as I could, dashed off at full speed at Ned's summons, and nearly tore my flounce off in turning an unlucky corner.

I was as anxious as he to see the first of this paragon of relations. Edith Waldron, second cousin or some such thing to my mother, a very small bit to me, but highly exalted by beauty, wit, and sweetness, unexcelled above all other cousins, some years our senior, to pay us a visit of infinite length, to be lionized and treated and worshipped. Her bedroom was chosen between mine, Jane's and Ned's. The large room between was appropriated to the charming Betsy. The best, the "state room," was given up to a delightful young couple, with whom mother picked a sea-side acquaintance and fanned into a romantic friendship. A brace of Oxoniens, one a friend of Ned's, by name Frank Deane, and the other a friend of his. These were our guests; besides we had our Eton brother, Charlie, and a younger chum of his—not a bad assortment. Edith was exquisite, full of kindness and affability to me and Jane, who were but nines compared with her, for there was something in her stately, queen-like grace which gave one a consciousness of great insignificance, not to say dullness. She let us wait on her, unpack, dress her, and asked to be called at six, that she might begin at once to explore the country. N. B. She came from one of the ugliest, flattest of counties, and hardly knew what you meant by a hill or a slope, went into raptures with the first wood and trickling brook.

I didn't quite promise to do so.

The Rev. Nathaniel Braithwaite was a Fellow of Balliol—a tall, gaunt man, high-shouldered, long-limbed; a large head, with coarse, thick hair, little faded eyes, which were not beautified by the huge spectacles he wore; a goodish nose, but an uncommonly ugly mouth, which was drawn into queer contortions in absence of mind, or great excitement in conversation. Altogether, the don was not fascinating in his looks; his mind, his talk rarely so. He had a deep, melodious voice, singularly in tune, and he spoke with a quiet authority, and with the purest enunciation; and he could sing—not flutter and drawl and sentimentalize on a few weak notes,—but sing, with tuneful, impassioned voice, and make his audience thrill and tremble under the power of the sweetest, purest sound. Ned declared he was under the doom of a wicked fairy, who uglified his exterior, but had no power to change his voice.

At dinner, Cousin Betsy was gushing, extending her large, fat hands in gesticulation peculiar to herself, opening and shutting her small, weak eyes with quite a melodramatic air. Her dress was youthful and simple in the extreme; rather too transparent about the neck and shoulders to suit our country tastes, and rather suggestive of monthly nurses and fat lodging women. She was charmed with us all in turn, patted and flattered us with greatunction, and made us envy Ned and Charlie, who escaped free of kisses.

She was fond of young people, and generally joined one of our cosy little sets, keeping her eye on the next sofa, and apparently listening and keeping up with every one in the room. No wonder mother called her "clever;" I think she was a genius in this line, and all the minutes we chatted on with idle fingers, she was twisting and twirling in tatting or croquet. It was rather painful when she would ask, in audible whispers, who Edith was, what age, what relation, and how long she was to stay; and still more so, when she saw the Reverend Nathaniel deep in the "Idylls" and reading rare bits to Edith, now and then glancing over her rather frightfully, and asked who that man was with hair all over his face? Of course I answered wide of the mark, and plunged into a sketch-book hard by, hoping that her remark might apply to a picture therein. But it was impossible for me to parry her remarks. I was as an innocent lamb in a fox's hand, or rather paw; she twisted me about as dexterously as the thread in her big, white hands; sifted me through and through, till in despair I went round to Ned's coterie, and interrupted an animated discourse on Swiss scenery, which he held with pretty Mrs. Neville.

She was the loveliest little spray of feminine beauty, all grace and elegance; bewitchingly got up in blue silk and lace, her eyes but a shade darker than her dress, and her mouth much like the rosebud she held in her hand. Altogether we had in our room two women as perfectly beautiful as even Tennyson can paint, but of two different types.

Ned was painfully weak minded on the point of beauty. It beguiled him, blinded his eyes, and darkened his sense of ought else. He always vowed he had never been in love in his life, and perhaps he had not; for my part I am not quite sure that I rightly understood the subject; but I think Ned grew rather silly and inconsistent, and altogether made rather what Charlie called "an ass of himself" when any pretty woman came in his way. He was very good company, I am sure of that, and had a very pleasant face and manner of his own. He stayed so long talking of Swiss hotels and scenery, and the regular tour-

ist walk, that I think he forgot there were others in the room but himself, and even when Edith played for Mr. Braithwaite to sing, he kept up a *sotto voce* conversation.

Mr. Neville was one of the clever men that all smaller fry eschew. He looked down from his stately height and well-cut, well-favored face, in charming unconsciousness of greatness. How he ever did the courtship with such a small butterfly wife as he had, I could never conceive. Perhaps she did it, and charmed his staidness by her pretty, fluttering wings. She had such a darling little way of rushing up to her tall husband, putting her dainty hands on his coat, and saying little mysterious words, all about nothing at all, I dare say. I couldn't help watching her sometimes, just as one watches a sweet little bird perching and twittering on a rose bush just gay in its own bright enjoyment.

That night we young ones settled with Edith to get up at six, and go up the hill at the back of the house and wet our feet with the morning dew. For my part, I hated getting up early, summer or winter, and only showed my devotion to Edith by it. Jane was always glad of a little excuse for martyrdom and Ned and Charlie had enough of knight errantry in them, even in these fast, matter-of-fact days, to follow in the wake. Edith went into quiet raptures with the light and shade of our hill country, with gentle gurgling brooks and pleasant glades; but I suspect we came into breakfast rather faded, and not at all hungry.

The Rev. Nathaniel was rather excited about ferns, and went far beyond my depth in "fronds and fructification." He and Edith found a great deal to talk about, and a long searching in botanical books, which were found rather old-fashioned and slightly musty.

We all came together for a holiday, in this visit; all work relaxed, and duty seemed to be put on the shelf for awhile, except with the ultra-conscientious ones, such as Jane and Cousin Betsy, whose amiability and gushing sweetness exceeded even our expectations.

"Your dear mother needs help; I will assist her with the best of my poor ability. Ah! those flowers want arranging—allow me—there! (with a little simper of a laugh, and a slight disturbance of her very fat shoulders.) I have not quite forgotten the knack of putting flowers in nicely, although I am buried in my rural retreat, and scarcely ever handle one from year's end to year's end. How exquisite those roses are, my dear. Let me cut them, you will scratch your pretty fingers?" (I had particularly red, thick ones, and her compliment was quite stinging to my wounded vanity.) Supposing we go down that charming path toward the wood—we might find some moss, and the effect would be lovely, with roses set in it. Oh look at your brother's dear me, how clever! how delightfully amusing he is, really quite refreshing!"

Ned was telling a very good story with his usual animated mimicry, taking off the persons spoken of to the life, in voice and manner, and pretty Mrs. Neville was in fits of laughter—if anything so vulgar could describe her rippling merriment.

"Perhaps," I said, hoping to get rid of her, "as you are so kind, you will finish the drawing-room flowers, while I run and speak to Jane."

"Don't overheat yourself, dear child; it is so bad for your complexion too, going bare-headed in this sun. Just throw your apron over you! Ah! young things like you are so thoughtless about your persons."

I hated being called a "young thing!" like a newborn pig or puppy, and didn't see any fun in spending my morning under her small, high-pitched advice. She busied herself for a good hour in the flowers and settling of chairs and sofas and books, making them all look much like a first-class lodging ready for inspection.

"Come here, Nellie, you're wanted for this game. Which side will you take? Edith versus Mrs. Neville?"

"How are we to play croquet with this awful sun? It is really absurd," remarked prudent Jennie.

"Why not," said Charlie, "as well as cricket?"

"Oh, you stupid boy, don't you see why—we saunter in croquet, and run in cricket; but come and find a sheltered place. Surely in these delicious grounds there must be a cooler spot than this," said Edith, picking up her mallet and walking off.

"Not one-half as good; we don't keep up half-a-dozen croquet lawns, lady; but I can tell you of a shady bit somewhere down the shrubbery walk."

We had two novices that day, Mr. Neville and Mr. Braithwaite, and great fun it afforded, the grand, earnest way of Mr. Neville going right at it, and growing up by force and strength where he failed in dexterity, and the *ganche*, ludicrous agility of the Oxford man, bending and shrugging his high shoulders, and screwing up his eyes and mouth at every wrong hit, and the frightful jerks and thumps he gave his ball, nearly letting his mallet fall on one's toes. It was the merriest game I ever played. He played on Edith's side, Ned and Charlie on Mrs. Neville's, who with her fairy touch and clever little knoicks made her very soon the winner. Mother indulged our rural fancy so much, as to order luncheon to be laid on the old arbor table, rickety and cobwebbed as it probably was, but we contented ourselves with letting it bear the dishes, and carrying our own plate and portion to the grass-hillock under the grand old walnut.

Mother joined us, and Ned fetched the garden chair, but Cousin Betsy preferred the squatting plan, and looked very sweet and youthful, balancing her cold chicken on her lap, and laughing her silly little laugh at every joke she heard or failed to catch the drift of. After eating was satisfactorily got over, she produced her never-failing tatting, and inquired of the lady next her, Edith, whether she did much fancy work, and knew that queen of mysterious work, point lace?

"Indeed, no. I am so stupid about that sort of thing I am afraid I am too old to begin—my sewing is pretty well limited to mending and plain sewing."

"Is it possible! Well, there is no accounting for taste, to be sure; but I think no occupation so delightful, so interesting, as finding out a new stitch or a new pattern. Do, my dear young lady, pray let me initiate you a little—so charming you know when one's spirits flag, or on a picnic—to sit in a quiet nook with one's tatting or croquet,

alone you know with one's own thoughts, 'the world forgetting, by the world forgot'—ha! ha! Mr Braithwaite—you are a poet. Yes, I am sure you are—something told me so the first moment I saw you.

Mr. Braithwaite coloured up violently, even through his whiskers and beard, and scrambled up to a different posture, with a faint stutter of remonstrance. "Young ladies—do entreat for a little something, a little poem—it would be so entrancing under this dear old tree. I am so fond, so passionately fond of poetry—Shakespeare, for instance—what can be more delightful? or Byron, though he is a little naughty, but, let me see—who is the dear modern man who has written that sweet thing about a girl—you know, Evangeline—yes. Now, Mr. Braithwaite, indulge my silly fancy just a little."

"I am not sure whether the expressive fervour of her thin voice, or the sentimental pose of her undulating form, rendered the 'Poet' shy and modest, or whether Charlie's grimaces and explosive burst of merriment made her observe that her request was not likely to be granted; but she put an end to it all, by rising with a sweeping dignity, worthy of a better occasion, and let her ball of twine and braids roll off the sloping bank, till it got beneath Charlie's foot, and he, not perceiving it, crushed it mercilessly under his heavy heel."

"Oh bother! what have I done!" said he, jumping up, and entangling himself desperately in the broken threads. "Have I stepped upon a snake? Confound the thing! I beg ten thousand pardons. Cousin Betsy, it is actually your work—oh! what shall I do?" and the poor fellow stood threaded up nearly as fast as the little bit of lace, which dangled in sorry plight round his boots. "Oh, some one have mercy and take these threads off I can't move. I'm so sorry, indeed I am—but how did it come so near me? I never saw it."

Ned and Mrs. Nevile had risen, and I saw them stuffing their handkerchiefs in their mouths to stifle all sound of their mirth. Cousin Betsy looked wrathful, really large and old, and quite grand in her anger, which became her size and weight more than the complacent innocence of youth which she tried so hard to get up. Edith, true, gracious lady as she was, picked up the ball, and delivered poor Charlie's legs from their slight web, and tried to wind it up again; but the little instrument was broken and the ball spoiled by hard crushing and dust. Everybody felt uncomfortable. I am sure, except the two who had walked off to escape an explosive fit of laughter.

Mr. Nevile remarked that it was extremely hot, and proposed a change to the study and newspapers.

Mr. Braithwaite remarked to Edith, "Was it my fault? Ought I, do you think, to have complied with her request? But such a bore to do that sort of thing just when everybody is staring at one; and she does say such things—a most peculiar person."

Edith laughed, saying, "I am afraid I should have done just the same—one must have a large stock of good-nature and self-assurance to spout an impromptu poem in that sudden way, but it is tiresome that her beautiful work be so spoiled—and I'm so sorry for poor dear Charlie, who was as unconscious of mischief as a baby."

"To tell the truth," I added, "I am sure in a very cross voice, 'I am not very sorry that it all happened. Something must stop her perpetual amiable weakness in favour of every enjoyment we deal in. She hovers about one like a big gnat, one doesn't know what her presence but by the little buzz, or simpering chatter. I only wish mother had not been so full of cousinly goodness just now. Bah! I shall get a dose of it soon, for there she is, going down the very path I must travel with orders to old Wil'."

Edith lingered on, strolling up the broad avenue, and Mr. Braithwaite followed. Half-an-hour afterwards, I heard his rich voice in "Christabel." He was reading out of a pocket volume to Edith.

Riding for some of us, carriage with mother for the rest, dispersed the uneasy feeling of offence towards Cousin Betsy, who was persuaded that carriage exercise would agree with her constitution that particular afternoon, provided she could walk home.

Mr. Braithwaite made no secret of his admiration for Edith; his demonstrations of love were most grotesque. He strode on, cracking branches and stepping over stones, nearly plunging into thickets to keep by her side. Mrs. Nevile and I were on ponies. The wood we chose was steep, and thick with ferns and flowers; every now and then the path was crossed by a little streamlet, through which the ponies splashed, much to the discomfort of our companions; and the fresh herbage tempted them to poke their noses down, and linger on the road in a very tiresome, greedy manner. Frank Deane was very kind in guiding mine a little better than I could manage, as I was no horsewoman. He was nearly as clever and book-learned as his tall friend, though of a different stamp—at least Ned said so. His appearance was so comely and agreeable, that I forgot to feel shy and stupid, which a few sentences with Mr. B. invariably made me; but it is not assuring to be looked into by a pair of magnifying spectacles, which the don always wore. I can't imagine how Edith bore the long gaze so often cast on her. Utly was a mild term to express the strange, uncanny expression. Mr. Deane argued with me on it, and insisted on real beauty, intellectual beauty, overcoming any defect of feature. He must have had a good deal of hero-worship in him, to extol the man with such genuine feeling.

I was hardly grown up, and felt very queer at a *tele-tele* with anybody older or more distant than Ned; but that scramble through the wood was wonderfully soon ended, and I had an unpleasant feeling of discontent and craving for something I couldn't possibly explain to any one, when I found myself trudging homewards, Cousin Betsy irritating my temper by her little inquisitive officious questions. She could never keep long with women of her own age, but had, as she expressed it, "a strange attraction to youth." Her last words before dinner, on going upstairs, were—

"At six o'clock to-morrow we will have a charming trip to Deepden Wood, and bring back a sweet bunch of wild rosebuds. We must weave them into a wreath for your lovely cousin—Queen of Beauty—as I'm sure all the gentlemen name her. Dear me! how they do admire her!"

Your brothers are devoted, and poor Mr. Deane decidedly smitten."

I tripped on the last stair at this bit of news; but of course everybody admired Edith—who could help it?

We had a foolish plan of lingering about on the landing upstairs, and making one room a rendezvous for all idle chat; sometimes it was Edith's, and this night it was mine. Half in and half out, we gathered round the door, with the ends of jokes left unfinished in the drawing-room; little plans for the next day; little confidences and nothings whispered or laughed over, as the case may be. I had a plan ready made, and longed to open for general consent—the old story of my childhood, "The Fox and the three little Pigs." I wanted to go to our "orchard" an hour earlier than our "fox" had proposed; at any cost, we must circumvent the obtrusive animal in female garments.

"What do you say to a quarter past five instead of six?" I whispered close in Edith's ear, giving her a premonitory pinch to answer inaudibly.

Ned and Charlie must of course hear any little secret, and instantly repeat it in deeper, distincter tones. Mr. Braithwaite bent his shaggy head to be received into the mystery; and Frank Deane wickedly made a faint clap with his hands, with a "Well done! No shoes on the stairs; no creakings of doors; but a free escape Delightful! I hope I shall wake in time."

A slight titter was echoed round, and Ned could not be happy without a few bends and attitudes, a few simpers and shrugs, and expressive upliftings of the large white hand, to which his hard, brown palm did very poor justice.

Mother's head was popped out to remind us that the clock was striking twelve. Everybody wished "good night." Edith, of course, kissed us; and Charlie, who was but a boy after all, put up his face with a plea of "only a cousin."

Ned was standing very close to Edith, and, before she could raise her head, put his own face down to hers blushing violently, however, as he said—

"And I am a cousin too."

Edith was too dignified to hesitate; but just as Charlie was patting Ned, and wondering what next he would do, Cousin Betsy appeared at her door, pursing her mouth into a gracious smile, and begged to have her candle lighted, as she stupidly had blown it out. It was instantly relighted, and we made a speedy retreat to our bedrooms, where, I believe, we all speculated on the probabilities of our midnight conference being overheard by ears always distressingly keen. By the way, Mr. Braithwaite had departed before the kissing man had begun.

Well, we had (figuratively) gathered our apples, and were busy peeling them, when the bland voice of the "Fox" ralled us on our want of punctuality. "Seven o'clock, young ladies—and not ready."

Very wrathful was the look she cast on me, especially, and very withering the scornful voice in which she inquired, "when and where we had been, at such an early hour, that even our footsteps had been unheard!"

"It is no go," said Ned sorrowfully. "We shall never be a match for her. If mother will ask the blessed old humbug, why we must be dutiful, and endure." But for all his resignation, he contrived to take a good deal of amusement, and to judge from Mrs. Nevile's bewitching little rippling merriment in Ned's company, I should think the spinster cousin afforded an unfailling source of fun.

But plots and counter-plots, little *contretemps* or boredom with the cousin, could not prevent the following ten days being nearly perfection in pleasure. We saw less and less of Edith, for the very best of reasons, that she was more appropriated by the Reverend Nathaniel. There was no doubt of the matter—she was fast succumbing to his fascination, whether it lay in voice, mind, or person. Every day she became more pensive, more lovely, less self-possessed and stately; blushes came and went, and little dreamy looks and absent ways betokened the thorough dominion of the little god.

Ned fumed and fretted, I can't tell why; he was unreasonable. I never thought he could be in love with her himself—the thing was too ridiculous. "Nellie, I verily believe that fellow is actually going to propose; there he is, down in the garden, making the most desperate love; what business has he, ugly dog as he is! Can't you speak, and say it is all nonsense?" "It isn't nonsense, it is just the truth, and Edith likes him—I know she does."

"Just like a girl, to jump to conclusions! She has a great deal better taste. Confound him! why should Deane have brought him here?"

"My dear boy, don't put yourself in a state, and betray your jealousy. She is a dear, beautiful creature, but years too old for you; so just console yourself with the fact, and not let it suddenly burn down into your poor little heart."

"You have no right to laugh at me! you're a little goose, and as likely as possible to have your own heart touched up. Just wait till your turn comes! Everybody is not Edith, mind, and he is—bah!—I hate to think of his great awkward limbs, like an old ogre turned loose! I shall just hate him, and I'll tell her so."

"No, you won't; you'll be very sweet and wish her joy, and tell her how well you appreciate her excellent taste. But I must confess I wish he was a little more commonplace and human in his outside; he is a sort of man I would rather meet in broad daylight than on a moonlit night."

"Well, well, I shan't believe it till she tells me," sighed Ned, with quite a pathetic thrill on the words.

It was my turn that week to do the housekeeping, and I was deep in my desert dishes, with sleeves tucked up, and large bib-apron covering my dress, when I heard a little rush outside in the passage, and unmistakable sounds of mirth. It was rather hard to have my housewifery betrayed by those mischievous brothers. Charlie was trying to snatch something from Ned, and Mrs. Nevile expostulative and laughing.

"Look, Nellie! isn't that well done?"

"Oh Ned, Ned, how could you! Burn it at once; mother will be vexed." But I couldn't help laughing, in spite of

my discretion, at the absurd caricature of Edith and Mr. Braithwaite, as "Beauty and the Beast." The likeness was admirable, too good not to be dangerous.

"I shall drop it into her work-basket. I'm not supposed to know why it should be offensive, you see."

"Mrs. Nevile," I implored, "pray stop him, I am certain mischief will come of it. Silly boy, you will only singe your own feathers. Come, give it to me, and you shall have some bon-bons, like a good little dear."

I opened my jar of crystallized fruit, and immediately a fearful raid was made, but the offending drawing not given up to me as I bargained for.

Just at that minute, when I was trying to shelter my precious goods from Ned's masterful grasp, and he with his other hand, flourishing the paper over my head, the sweet Betsy's large face was seen in the doorway, and in her most highly pitched, insinuating tones, asked, "What were we all doing, such a merry party; some witty speech of Ned's, she was sure."

What a wonderful scent she had for mischief in any shape of meddling! I was sure she saw and took in the forbidden object, as her little eyes made a sweep of the group, although she wisely said nothing but, "Ah, what a retreat! charming! and so usefully employed. Well, you young ladies will make the best of wives, quite ready-made housekeepers, don't you think so, Mr Deane?"

My actual work progressed wonderfully after this speech, for the spell of her presence was so great that the room was soon cleared of all visitors.

The idea of Edith, our beautiful, good cousin, wedding with the odd-looking scholar, clever and learned though he might be, became very repugnant to our minds. We had not the key to her heart, and could not, from our own youthful, feeble reasoning powers, understand in the smallest degree her predilection. I puzzled over it a good deal with Jane, but Ned took it up more warmly. Perhaps, now that the prize was being taken from his reach, and placed at an immeasurable distance from him, he set it in more glowing colors, and discovered merits and charms only glanced at before. That he should be so very silly as to imagine any possibility of Edith's caring an atom for him, except in the most cousinly fashion, was not to be thought of. I felt very wise and sober-minded myself, and tried my best to instil the like in him. But he was restive and irritable, and partly from envy and partly from a boyish love of mischief, he managed to do a thousand little tiresome things, which I knew one day he would regret. I had forgotten the absurd caricature, till one evening I observed Edith's brow somewhat clouded, and a crimson flush on her delicate cheek. Surely Ned could not be so bad as to tease her with it!

Yes, he had put it in her basket, and as she drew it forth, he laughingly asked "If it were not a good likeness?"

"Ned, Ned! take it away, you bad boy. What am I to say to you!" Then she put her hand on his arm and spoke so deeply, and yet affectionately to him, that I am sure he was already repenting.

"Do you know I am engaged to Mr. Braithwaite? I have been wishing to tell you and Nellie,—don't you wish me joy? I am so happy. Try and like him as much as I like you."

Poor Ned! Then it was true past all doubt, and his pretty little dream dispersed.

He shook himself free from her touch. He looked very handsome with his head thrown back, and his pleasant eyes dewy with tender feelings.

I felt so sorry for him, spite of his exceeding foolishness.

"No, I shall never like him; I can't bear you to marry him: I know you could never care for me; it isn't that—but—it seems a mistake, you are too dear and beautiful for him; I hate the thought of it, I do."

"Hush, hush!" pleaded Edith with almost an angry flush on her face. "You must not speak such words to me, it hurts me. Please, Ned, never allude to this again, and I beseech you to burn the wretched thing," taking up the paper and crumpling it in her hand, and going out of the room.

There was a nice end to it all, and Ned deserved to look foolish all the evening, and to have Cousin Betsy follow him about with her inquisitive eyes, and venture to insinuate something about "mistakes and heartaches." It was shameful of him—but for all that, and the heroic manner Mr. Deane had of laying on a double amount of paint on his friend's mental endowments, I could in no wise entertain pleasant cousinly feelings towards the reverend scholar.

When Edith's engagement was formally announced, and sundry letters written and received, we were warned to refrain from all jokes and intrusive interruptions.

Our party began to disperse, first one and then another; we at last dwindled down to a quartet with parents, Edith and myself; I daresay, I only felt the terrible reaction and *ennui* from a month's exciting holiday. Mr. Braithwaite was to come again in a fortnight and escort Edith to her home, and Cousin Betsy had gone to bestow her valuable company on some old friends, to whom, quite at the last, she discovered Mr. Braithwaite was related. On this score she got up quite an intimate conversation, and almost forgave him his "ungentlemanly refusal" to her request on her first arrival. The air seemed clearer when we saw the last of her at the station. I hoped it would be long before mother thought it necessary to repeat her invitation. Ned and Jane were to pay a short visit to an aunt, and Mr. Deane was gone for good. Alas! saying "good-bye" is not exhilarating, but he said something about "Christmas and living on hope." in a confused, tantalizing manner, which his pleasant manner and expressive grey eyes stirred into a shadowy dream not far from Elshim, and I wandered over the old walks and tried to understand Edith's sober, satisfied happiness.

One morning I found Edith in distress, crying over a letter, and to my infinite dismay, I saw the obnoxious drawing on her lap!

"Oh, Nellie, come here: I am in sad trouble; but what can it be—who has done it? I was so happy, and now he is so angry. Is it anything to do with Ned?"

"Ned!" said I; "surely not. What is it? Come along to mother and tell her all."

I was frightened, and felt safety lay only in her wise presence. Poor Edith, she was agitated. Mother was ready to hear us, and read the letter Edith put in her hand. I saw something was serious by her face.

"There is mischief here," she said. "Mr. Braithwaite is really angry; how could such an idea get into his head—'kissing, private meetings, unwarrantable liberties?'—my dear, you must have some clue to such a wretched misunderstanding. But what is it all about—any nonsense of Ned's?"

I did not read it, but I understood that Mr. B. had received a letter from his sister, telling him "that the lady to whom he was engaged was a shocking flirt, and had accepted him at the time she was carrying on a secret love-affair with a handsome cousin; that she had been seen to kiss him, and had repeatedly allowed him to address her in most over-like terms; and that she and this cousin had constantly made ridiculous jokes on himself; that on the very day of her engagement she had received a caricature of Mr. Braithwaite and herself, and had been seen laughing and whispering over it with the cousin who had drawn it." Mr. Braithwaite wrote an entire explanation, in default of which he begged to be released from his promise. This was a nice piece of business, and poor mother, who guessed only the outside of our foolish jokes and Ned's insane mischief, was thoroughly astonished and vexed. I felt I could put my finger on the right clue, and disentangle the disagreeable mess if I dared. After a little self-consultation I ventured on—

"Cousin Betsy is staying with some cousins of Mr. Braithwaite's; don't you think —?"

"I can't imagine anything so dreadful of her as that, my dear."

"I must imagine it, mother, for I utterly distrust her, and I don't see any other way to clear the mystery. Besides, everything that you have heard is founded on fact; that is just the puzzle of it. But it is pure malice and spiteful mischief only to have twisted such straws into this wicked lie. Please let me say it, mother—it is wicked of her, and whatever you may say, you will fail to convince us that she is sincere and kind; we have all smarted under her odious ways, more or less. Do write to her, and force her to confess."

"Yes, if I could; but we are talking nonsense; she would own nothing to me, and anything short of a contradiction and thorough explanation of the whole business would not satisfy Mr. B.—. Dear, dear Edith, I cannot tell you my vexation; write at once to him and beg him to come here. Words will explain more in a meeting, and seeing you and hearing our denial will scatter this ugly suspicion."

"Yes, yes," said mother, gently, and looking puzzled. "That is much against us; but it is so thoroughly false; it must right itself one day. It was wrong of Ned to be so thoughtless; and, Nellie, I blame you for not putting a stop to it or coming to me. If you distrusted your Cousin Betsy, you should have been doubly cautious."

I was too miserable and angry to answer; angry with this woman, and longed to be a school-boy, and settle the matter in a summary, satisfactory manner—words, civil words, were too good for her. I longed to face her, and have out my pent up disgust at her prying, meddling ways; if she could be shown up and her real self shorn of all polite flummery. I had known this woman from my earliest days, and, with my brothers and sisters, had a repugnance, founded on the discriminating instinct of childhood, for her slippery ways. How she had kept on polite terms with my mother all these years, was beyond my understanding. So I longed to do battle; but the only active part I took in it was obtaining leave to write to Ned and tell him the whole story, it must be confessed with a slight wish to make him share my blame and look back on his mischief with a proper remorse.

Ned's answer nailed one point on Cousin B. which I triumphantly carried to mother. He intended to destroy the offensive drawing, and searched everywhere for it, after missing it from his pocket on that evening. It did not vanish into the earth without hands to carry it there!

No doubt of it. Cousin B. had surreptitiously gained possession of it, and used it as an instrument of wilful malice. How could we regain it, and prove the fact? I would get leave to write to the cousin of Mr. Braithwaite, and beg as a great favor that she would tell me if such a caricature had been shown to her or to Mr. B. This would be something.

Her answer was satisfactory on that one point, but plunged the whole thing more into the mire.

She had seen the drawing, Miss Price (Cousin B.) had produced it to prove, what she had assured herself and her family, that Edith Waldron was not a desirable wife for their relative, and that they earnestly hoped the hasty engagement would be broken.

"I will write to him," said Edith, with tears in her eyes, "and tell him everything. I will say what I now believe to be true, that Miss Price has hatched the slander from pure malice, and beg him to come here."

"Yes, do, my dear; and I will also write, and Nellie shall speak to him, and I will write to that ungrateful woman and tell her exactly what I think of her conduct; she may confess, and on that lies your best chance of refutation. A jealous distrust is a hard flame to extinguish; it is a bad beginning to a life's companionship. It is a slander founded on fact, difficult to unravel and sort."

Cousin Betsy's answer was precisely what I expected. A tissue of little webs—truth and falsehood so admirably tangled together—that mother looked blank, and confessed herself completely nonplussed.

Mr. Braithwaite's letters to Edith were evidently distressing. Of course I was not allowed to see them, but from her sad dejection and what mother let drop, I conjectured that a sore wound had been made. He came to us for a few days, and I was called upon to witness to Ned's innocence and Edith's loyalty. He was certainly

very miserable, and spoke of "incompatibility of character, quick attachment, and depth of love," not in the reasonable, scholar-like way he generally spoke, but incoherently, passionately, as poor ignorant women are said to talk.

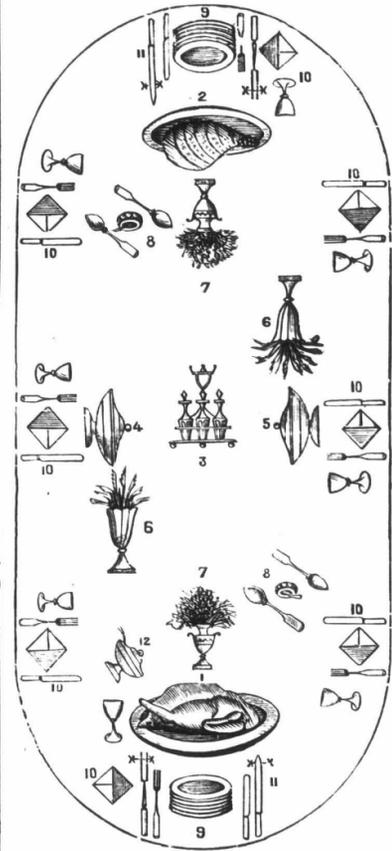
I disliked him. For my part I thought his pertinacity of suspicion was not a proof of affection or respect. Ned's old view of the subject, "that Edith was too good for him," was the right view.

His departure was a relief. Edith returned to her home. Everything went back to the old routine. Months passed on, and we gathered from Edith's letters that her engagement had ceased. Ned wrote from Oxford that the Rev. Nathaniel frowned his shaggy eyebrows more than ever, and became more and more identified with scholarship. He held his fellowship for years—and our beautiful, delightful cousin Edith never married.

Cousin Betsy never set our teeth on edge again, and never cast a shadow on a bright holiday. Her name became a by-word; we looked back on her meddling, spiteful ways with unmitigated disgust and wrath.

### Minnie May's Department.

MY DEAR NIECES,—As one of you has asked for directions for setting a table, we thought it advisable to give a few general hints for the



benefit of all. The accompanying cut shows a table set for an ordinary family dinner. So much of the general comfort of a meal depends upon the neatness and taste with which it is served, therefore one of the main things to be considered is, that everything is clean and neat; a snow-white cloth, glistening glass and polished plate are necessary to make a table appear attractive. Do not starch the napkins, as it renders them stiff and disagreeable, and only a very little, if any, in the table-cloth. Flowers, ferns and mosses, tastefully arranged, add much to the beauty of the table. Napkins are indispensable nowadays; they may make a little extra work, but with reasonable care will keep clean a week, or, at most, one change during

that time should answer. Never, under any consideration, give a guest a napkin that has been used by any one else; always taking care to keep each person's napkin distinct from the rest; it is best to have rings, then there can be no mistake. Some prefer putting as many knives, forks and spoons by the side of the plate of each person as will be necessary to use in all the different courses. Place the knives and spoons on the right side and the forks on the left side of the plates. This saves the trouble of replacing a knife and fork or spoon as each course is brought on; but many prefer the latter arrangement as they object to the appearance of so many knives, etc., by the sides of the plate. This is, of course, all a matter of taste. At opposite sides of the table place salt stands, together with the different fancy spoons crossed by their side, which may be necessary for serving dishes. See that the carving knives are in good order, as it is very irritating to the carver to have to sharpen the knives before the meat can be helped. Bread for dinner should be cut in thick squares and laid on each napkin or placed in a bread tray. All dishes used for meat and vegetables should be warm, not hot, as cold plates cool the meats, gravy, etc., which to some is very disagreeable. Soup, salad and dessert should be placed invariably before the hostess, and the meat before the host. Never overload a plate nor over supply a table. It is a vulgar hospitality. When you invite a person to a family dinner do not attempt too much. Many are deterred from entertaining because they think they cannot have company without a great variety, when really it is more elegant to have the dinner appear as if it were an every-day affair than to impress the guest with the idea that it is an especial event to ask a friend to dinner. "It is the exquisite quality of a dinner that pleases, not the multiplicity of dishes." If guests are at the table the lady guest sitting at the right of the host, or the oldest lady should be served first. As soon as the second person is helped, there should be no further waiting before eating.

You will observe that in the accompanying engraving the glasses are placed upon the wrong side, and the turkey should be placed with the head to the left hand as most convenient for carving; also the gravy tureen should be at the carver's right hand.

MINNIE MAY.

### Answer to Inquirers.

ONE, TWO, THREE.—What would be an appropriate birthday present, for me to give a young gentleman, whom I have been on intimate terms with for over two years, he having always remembered my birthday. **ANS.**—A book is always a nice gift, and, when one knows that it would be appreciated, a nicely bound Bible or prayer book would be a suitable gift. Indeed it is surprising how often young men who are possessed of every knick-knack are yet without a nice Bible, and such a gift coming from a valued friend might be read and studied, when otherwise the book would be unthought of, and we may venture to say that no one has read the Bible without gaining some good.

In answer to "Polly," "Anxious," and others, who enquire as to wedding etiquette we give the following replies: Wedding invitations should be sent out by the bride's parents, or whatever relative or friend gives the wed-

ding breakfast. The groom should be asked to give a list of the friends that he desires to have invited, and invitations must be sent to them even when they are perfect strangers to the bride's family. The bride goes to church or enters the drawing room, as the case may be, with her father or nearest male relative, the person who gives her away. The groom should be in the church and await his bride at the altar, or in the drawing-room standing by the minister, attended by his best man; the bride may be preceded or followed by her maids, who must be at the church door to await her coming. The bride's mother takes no part in the ceremony, she should be in the church before the bride, and occupy a front pew with the other guests, or she may, when it is so arranged, stand with a group of guests just behind the bridesmaids; this, however, is not usual. The bride stands at the groom's left hand. It is more fashionable to have but one groomsmen as best man, but any number of bridesmaids. At a fashionable day wedding in church the bride wears full dress, viz:—white satin or silk trained dress with lace and flowers, a veil and orange blossoms; the groom wears morning dress unless the wedding be in the evening. Morning dress means a frock-coat of black cloth with vest of same, and dark tweed trousers, and light necktie and gloves. The groom's gloves should match the bride's. When the bride wears a travelling dress it should be of some dark fashionable shade—this year grey is much worn with bonnet and mantle to match, or a very rich mantle of velvet brocade, but not black, it must either match or harmonize with bonnet and dress; gloves may match or be of the new tan color in undressed kid. After the ceremony and signing the register—the bride signs her maiden name—the bride drive home alone with groom and leaves the church first, guests awaiting her departure. On reaching home the bride lays aside her wrap and stands with her husband in the drawing room to receive felicitations as the guests are presented. Directions as to breakfast and seating of guests have been given quite lately. When the reception on the return of the young couple is given by bride's mother the card reads: Mrs. Smith, at home, Wednesday, 15th January, the cards of the newly married couple being enclosed, or the names "Mr. and Mrs. Jones" placed below the mother's on the card. A bride is no longer called a bride after three months. She may wear her wedding-dress to dinners and parties as often as she pleases, but not the orange blossoms after the ceremony, they pertain to the wedding day only. Presents should be acknowledged either by note, or personally on first opportunity.

J. C. B.—Rip Van Winkle, was the name of one of the Dutch colonists of New York, whose adventures are related in Washington Irving's 'Sketch Book.' He is represented as having met a strange man with a keg of liquor, in a ravine of the Catskill Mountains, and as having obligingly assisted to carry the load to a wild retreat among the rocks, where he found a company of odd looking personages playing at nine-pins with the gravest of faces, and in the most mysterious silence. His awe and apprehension having by degrees subsided, he ventured, when no eye was fixed on him, to steal a taste of the beverage which he had helped the strange man bring along. He repeated the draught so often, that at length his senses were overpowered, and he fell into a deep sleep, which, strange to say, lasted for twenty years. though they seemed to him, but as one night, Meanwhile remarkable events had taken place, his wife had died, his daughter was married, his former cronies were dead, or scattered, or much the worse for the wear and tear of time, and, more than all, there had been a war of revolution, the colonies had thrown off the yoke of the mother country, and were now known as the United States of America.

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES.—Knowing you will all be eager to hear who are the lucky ones in earning the prizes for the past year, I will not keep you in suspense. You will remember there were eight prizes offered, four for the best puzzles, and four for the best answers to puzzles. The prize winners for the best original puzzles are as follows: 1st, prize of \$2.50, won by Maggie F. Elliott, Mitchell P. O., Ont.; 2nd, prize of \$2.00, won by Harry Albro Woodworth, Kentville, Nova Scotia; 3rd, prize of \$1.50, won by Ada Armand; 4th, prize of \$1.00, won by Philip Boulton, 13 Spruce street, Toronto, Ont. The best answers to puzzles, 1st, prize of \$2.50, awarded to Harry A. Woodworth, Kentville, N. S.; 2nd, prize of \$2.00, awarded to Maud Dennie, Bath, Ont.; 3rd, prize of \$1.50, to James Watson, and 4th, prize of \$1.00, is divided equally between Esther Louise Ryan, of Mount Forest P. O.; Normandy, Pike Lake, Ont., and Ada V. Morse, of Leamington, Ont., who obtained equal marks. Will Ada Armand and James Watson please send their addresses, as they have been mislaid. I have kept an accurate account throughout the year, and have awarded



9—ILLUSTRATED REBUS.

the prizes to those who have worked most faithfully and deservedly. I hope you will all continue your interest in the puzzle department, also a great many new nephews and nieces will join in competing for the prizes for the coming year (1884). There will be eight prizes given, four for the best original puzzles viz.: 1st, \$4.00; 2nd, \$3.00; 3rd, \$2.00, and 4th, \$1.00; also four prizes for the most correct answers to puzzles, viz.: 1st, \$2.00; 2nd, \$1.50; 3rd, \$1.00, and 4th, 50 cents. All puzzles and answers must be in by the 25th of each month, otherwise we cannot give you credit or publish your names. Hoping to hear from a very great number next month.

UNCLE TOM.

Puzzles.

DROP VOWEL PUZZLE.  
Y — m — br — k y — m — r —  
n th — v — s — f y — w — ll b — t  
th — sc — nt — f th — r — s — s — w — ll cl — ng  
t — — t st — ll.

2—TRANSPOSITION.  
Phpya si eth lemrl how slive lal yb flemshe  
Eth lehwe soge undor eh hagtres pie ihs helwta  
Noe nahd ni het pperho nda hortre ni het gab  
Het hewle eogs donur yteh lal yre agbr.

LUCY TURNBULL.

3—Wan day I met wid Mike,  
Who's livin still at whole,  
An' as we had't met for long  
We ordered aich a bowl,  
An sat to have a bit of first,  
While second we did ate,  
Along wid praties, onions, eggs,  
And such like fixins nate.

PHILIP BOULTON.

4—DOUBLE DIAMOND.

1, a consonant. 2, an article. 3, a wrap.  
4, an animal. 5, is found in London.  
1, is in Asia. 2, a verb. 3, a bad boy's dread.  
4, to masticate. 5, a consonant.

HARRY A. WOODWORTH.

5—DOUBLE ACROSTIC.

1, a girl's name. 2, a city in South America.  
3, a river in England. 4, not anything. 5,  
sorrow. 6, a flowering plant. 7, a city in the  
New England States. 8, to endanger. 9, a  
Roman Emperor. 10, to avoid.

My initials and finals read downward, will name a celebrated poem and its author.

HARRY A. WOODWORTH.

6—My 4, 2, 3 means to make brown  
My 2, 3 is an article.  
My 4, 2, 6 is a black substance.  
My 6, 2, 4 is a small animal.  
My 7, 5, 4 means clear of all charges  
My 2, 3, 4 is an insect.  
My 6, 2, 3 is a verb.  
My whole is useful to light you through  
the dark.

MAGGIE F. ELLIOTT.

7—BURIED TOWNS.

It is a pity Reginald got hurt.  
He slipped on the frozen ice  
He paid the debt for drainage to that tall  
man.

I met her a party.  
Say, Ben, are Sam and you going to-morrow.

MAGGIE F. ELLIOTT.

8.

My first is in more, but not in less.  
My second is in worst, but not in best  
My third is in lake, but not in bay.  
My fourth is in June, not in May.  
My fifth is in cat, not in dog.  
My sixth is in land, not in prance  
My seventh is in stamp, not in prance  
My whole is a celebrated town in  
France.

MAGGIE F. ELLIOTT.

Answers to December Puzzles.

- 1—A Merry Christmas and a Happy New Year to you all.
- 2—Ash, maple, elm, pine, spruce, alder, beech, willow, cedar, chestnut, hemlock, oak.
- 3—Pen-man-ship.
- 4—Age after age shall pass away, nor shall their beauty fade, their fame decay.
- 5—Uncle Tom.
- 6—Skate, skill.
- 7—When fortune smiles she often designs the most mischief.

Names of those who have sent Correct Answers to Dec. Puzzles.

Minta Wetmore, James Watson, Maggie F. Elliott, Harry A. Woodworth, Ellen D. Tupper, Richard Kingston, Alice J. Whiting, A. J. Phenix, W. H. Dingle, Philip Boulton, Lottie A. Ross, Geo. Barr, Robt. J. Risk, Isabella McLeod, Esther Louisa Ryan, Maud Dennie, Henry Edgar Fry, Addie V. Morse, William Bowman, Robt. Wilson, Maggie Rowe, John C. Elliott, John W. Forbes, Geo. Potts, Mary Morden, Ida Morden, J. G. McIntosh, Henry H. Coates, Lydia Morris, M. Anna Nightingale, Carrie A. Loskie, Fred. Hamilton, Ida Shipley Greystead.

A shrewd observer explains that when a lover leaves the house of his adored one at a late hour in the evening, and walks musingly homeward beneath the twinkling stars, his fond fancy pictures her, clothed in white samite, resting sweetly upon her pillow with unbound hair tossed about her sleeping face, and angels bending over her couch whispering heavenly dreams. Perhaps at that very moment she is in the pantry gnawing a crust, or sitting flat on the floor paring her corns.

## Special Notices.

In the advertising columns you see the announcement of Mr. Love's sale, who is one of the most enterprising and progressive farmers in the County of Huron, one to whom M. P.P. might, with honor to the Huron farmers, be attached to his name. He has been among the pioneers in introducing the most valuable stock in his County. We gave you an illustration of one of his fine imported Clydesdale mares, about nine years ago. We presume his stock is of that stamp. If such as he had then, we would much prefer purchasing of him than purchasing from recent importations. His stock of Clydesdales, when we last saw them, we consider preferable to scores that we have seen of recent importations. We have every reason to believe that his sale will be carried out in an honorable manner, and you may depend on what he says regarding his stock. There exists an increasing demand for Clydesdales. We hope to be present at this sale, as we know many of our old friends will be there.

We have received from the publishers of "Picturesque America" Parts 1 to 24 of their work. This pleasing series is now well known by the people of Canada, and deserve a generous support from its great cost and excellent engravings, with the interesting letter press accompanying each sketch. To the lovers of the beautiful, and as a memento of charming spots of scenery visited, these numbers are exceedingly valuable.

"With the Poets," by Canon Farrar. Wm. Briggs, Toronto, Ont. The name of the compiler is a sufficient guarantee that nothing but the best selections would be chosen. The work is most excellent in every particular, and will have many readers.

"Ogilvie's Popular Readings" No. 1 received from J. S. Ogilvie, of New York. A compilation of completed stories by different authors. To those who love light reading these series will prove interesting.

In next issue we hope to give several illustrations and particulars regarding new wheat, seeds, &c., of more than common interest.

Prince Edward Island would like a "Dominion Exhibition." At the Island Board of Commissioners for securing it, Senator Haythorn moved, seconded by Hon. D. Ferguson, Provincial Secretary, and it was carried, "That whereas the industrial classes of the Province of Prince Edward Island have been exposed to much inconvenience in exhibiting their live stock and other objects at Montreal, Halifax, and St. John, at which exhibitions have been held, supported by grants of Dominion money; Resolved, that in the opinion of this Board, it is expedient to take immediate measures to secure for this province a grant from the Dominion treasury for the purpose of holding a Dominion exhibition in the autumn of 1884 in Charlottetown."

Prize winners must not be too impatient over any short delay in receipt of their premiums. At the present season our staff are over-worked, and it is impossible to fill orders punctually. Give us a little grace, your premiums are sure to come, if not received within a couple of weeks, write, give full particulars as to names, with P. O. address, date when sent in, etc., on a postal card.

## January—February.

Our friends will bear in mind that the above months are as good, if not better, than any other two in the year, for securing new subscribers to this paper.

We hope by this time that all our subscribers anxious to increase our subscription list have procured a poster, premium list and club list. If not send postal at once for your outfit.

Our cash rates to agents are extremely liberal, and many ladies and gentlemen are making very lucrative incomes from canvassing. The work is healthy, honorable, and not too laborious. As all are aware, our premiums given for new subscribers other than themselves are unrivalled for usefulness and value, and most of them can be procured only by this means.

## NEW ADVERTISEMENTS.

THE FARMER'S ADVOCATE refuses hundreds of dollars offered for advertisements suspected of being of a swindling character. Nevertheless we cannot undertake to relieve our readers from the need of exercising common prudence on their own behalf. They must judge for themselves whether the goods advertised can in the nature of things be furnished for the price asked. They will find it a good rule to be careful about extraordinary bargains, and they can always find safety in doubtful cases by paying for goods only upon their delivery.

## ADVERTISING RATES:

Will be furnished on application, and manufacturers, seedsmen, stock breeders and others will find this journal an unrivalled advertising medium.

The FARMER'S ADVOCATE has the largest circulation among the best people in Canada. Its advertisements are reliable and are read.

## Pedigree Herefords in England.

Messrs. ROGERS & HAMAR,

THE PEDIGREE HERFORD SALESMEN, Compilers of the RECORD and REGISTER of TRANSACTIONS in HEREFORD CATTLE, HEREFORD and KNIGHTON (England), can give the fullest information as to where the best and purest-bred Herefords are to be found, and the most convenient way to travel the district. A quantity of recorded

**BULLS, COWS, HEIFERS and CALVES,**

(from the most noted Herds) always on hand for sale by private treaty. For particulars and full information respecting Herefords, apply to

**ROGERS & HAMAR,**

HEREFORD and KNIGHTON, England, who will, on the 15th day of April, 1884, hold their 3rd Annual Show and Sale of Pedigree Hereford Cattle at Hereford. 217-a

## PUBLIC NOTICE.

THE ANNUAL CONVENTION OF THE  
**DAIRYMEN'S ASSOCIATION,**  
OF WESTERN ONTARIO for the year 1884, will be held at the  
City Hall, in the City of London,  
—ON THE—  
13th, 14th, & 15th of February.

Arrangements are being made with the Railway authorities to have the usual reduction of fares to members attending, who, on application to the Secretary, and stating what road they wish to travel on, will be furnished with certificates accordingly.

By order,  
C. E. CHADWICK, Secretary.  
Secretary's Office, Ingersoll, Jan 7, 1884. 217-b

## BY AUCTION.

## GREAT CREDIT SALE

Of Imported and Thoroughbred  
**CLYDESDALE STALLIONS & MARES**

Imported Shropshire Down Sheep,  
Pure-bred and Grade Cattle.

Two Stallions, three Mares in foal, two spring Foals, ten Shropshire Ewes, a Shorthorn Bull, a pure-bred Ayrshire Cow, and some first-class 3, and 2-year old Grade Steers.

The proprietor is over-stocked.  
12 months' credit will be given. Sale to commence at noon, on the

**22nd DAY OF JANUARY, 1884,**

on the premises of the subscriber, near the Village of Hill's Green, 3 miles west from Kippen Station, on the London Huron & Bruce R. R. Teams will be at the Kippen Station to meet the morning trains, due from North and South, at 9 o'clock. Passengers will be taken back to meet the afternoon trains.

**HUGH LOVE, Sen., Hill's Green P.O.**  
Hill's Green, Jan. 1st, 1884. 217-a

## WANTED

Choice Samples with quotations of WHEAT, PEAS, BARLEY, and other SEED GRAINS. Also, Clover and Timothy FOR SALE at market values. Send for Samples and prices Address,

**PEARCE, WELD & CO.,**  
CORRESPONDENCE INVITED. LONDON, ONT.  
Send for Catalogue. 217-a

LITTLE FALLS CREAMERY  
FOR SALE.

This Desirable Property is now offered  
**FOR SALE BY TENDER**

UP TO FRIDAY, THE  
15th Day of February, 1884,  
OR BY PUBLIC AUCTION ON THAT DATE.

This is a splendid opening in a good district, of easy access to Toronto and Hamilton, being from 1 to 3 miles of three railway stations, and 3 miles from Georgetown. For description of property and information, write to  
H. M. WATSON,  
Georgetown, Ont., Canada.  
217-b



The only adjustable Wire Cloth Sieve made. It will take out good seed from the refuse of windmills that cannot be cleaned by any other process. Can be adjusted to many different size and shaped meshes. No. 1 Sieve will separate Plantain, Daisy, Buckthorn, Wild Carrot, &c., from Clover Seed, Red Top and Plantain from Timothy, and Timothy from Clover Seed. No. 2 will separate Rye, Chest and Cockle from Wheat. No. 3 grades Peas, Beans and Corn. Endorsed by Hiram Sibley & Co., D. M. Ferry & Co., D. Landreth & Sons, Plant Seed Co., Henry A. Dreyer, J. M. McCullough's Sons, B. K. Bliss & Sons, J. L. Breck & Sons, U. S. Agricultural Dep't., Washington, D. C.  
Prices:—Nos. 1 and 2, \$2.50; No. 3, \$2.75. Express prepaid.

**MILTON SIEVE CO., Limited,**  
**PEARCE, WELD & CO.,**  
Sole Agents  
LONDON, ONT. 217-4f  
Send for Circular.

25 Gold, Bevel Edge or 50 Beautiful Chrome Cards, name on, 10c. 13 pkts. \$1.00. Sample Book 25c. Agents wanted. Splendid premiums. Try us.  
215-c. **U. S. CARD CO., Centerbrook, Conn.**

**SEEDS GIVEN AWAY!**  
A PACKAGE Mixed Flower Seeds (400 kinds), and sample PARK'S FLORAL MAGAZINE, all for 2 stamps. Tell all your friends. G. W. PARK, Fannetsburg, Pa. 217-

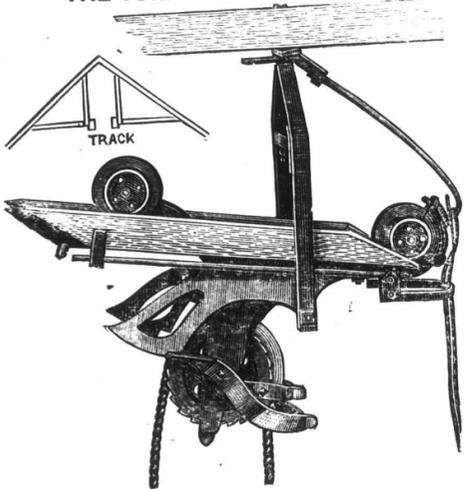
*Canada Business College*

CHATHAM, ONTARIO.

It is now acknowledged to be the most thorough School of Business Training in the Dominion. To young men and young women wishing a business education, we say: Visit any or all the other business colleges in the Dominion, then visit us, and if we fail to produce a better staff of teachers, a better course of instruction, and a more thoroughly equipped College in every respect than any you have visited, we will give you a course of instruction free of charge.

D. M. LACHLAN, Principal.

THE TURN-TABLE AND CAR.



CHAMPION  
HAY AND GRAIN UNLOADER,  
IS THE BEST OUT!

It unloads all a farmer grows; long or short, loose or in sheaves. It unloads uniformly in 3 to 6 minutes. It does it easily and never fails to get a draft.

It leaves no littering on floor or wagon.

It takes a load off at 3 or 4 drafts, as you like it.

It has a turn-table, for turning car without leaving barn floor.

Write for Circulars. Will send on trial to any responsible party. AGENTS WANTED.

T. G. GILLESPIE,  
CAMPBELLFORD.

THE GLOBE

The Leading Paper of Canada.

FARMERS

Send your name and address to the Office of the Globe Printing Co., Toronto, and you will receive a Sample Copy of

THE WEEKLY GLOBE

by return mail.

The WEEKLY GLOBE is, without doubt, the best general Newspaper in this Country, and ought to be in the household of every Farmer. Subscription only

ONE DOLLAR.

THE GLOBE PRINTING CO., TORONTO.

Commercial.

THE FARMER'S ADVOCATE OFFICE,  
London, Ont., Jan. 1, 1884.

The early part of the past month was very open and mild, followed by snow in some localities, with cold frosty weather. London and vicinity has now enjoyed over two weeks of good sleighing.

WHEAT

keeps on in the even tenor of its ways, and don't seem inclined to get out of the old ruts.

A good deal of speculative interest will no doubt cluster around this cereal the next few months. Many speculators think it a good investment at present prices. The most remarkable feature in the situation is the persistent piling up of stocks in the graneries of the United States, when since the last harvest stocks have increased about 14,000,000 bushels, in the face of that "immense shortage" in the wheat crop of 1883, which has been the war cry of the "bulls" for months, and yet for their pains, up to the present they have had very little reward, save sarcastic statistics, which seem to have knocked the bottom completely out of their starvation theory.

That the winter wheat crop of 1883 in the United States was below an average, there can be no doubt, but, as we have before pointed out, the large spring wheat crop in a great measure made up for it. But what has baffled the boys more than this, was the heavy reserves left over from the previous harvest, and we candidly believe that the New York Commercial Bulletin's estimate of the crop of 1882 was none too high when it placed it at about 600,000,000 bushels. We have repeatedly noticed that those who have put up their margins on the strength of Washington Bureau reports have been badly sold. On Saturday the total receipts of wheat at New York, Toledo, Detroit and Milwaukee were about 100,000 bushels in excess of shipments.

PEAS

are not plenty, and what few are offering are held by dealers for higher prices. No doubt a good many will be wanted for seed, but we question whether the demand will warrant much advance - 70c. to 75c. is being paid.

BARLEY

does not attract much attention, and the demand is slack.

OATS.

The crop of oats all over the country has been very heavy, yet the price is good, and the deficiency of other coarse grains will no doubt cause a very large percentage of them to be fed on the farm.

CLOVER SEED.

The indications are that this article will be scarce in Ontario the coming season. Some affirming that there is not enough for local wants.

CLOVER SEED - THE SEASON COMMENCED - SHORT CROP IN CANADA.

Ontario farmers have brought out a few parcels of clover seed, and we hear of the sale of a lot of 50 bags in the West on p.t. for Montreal account, but prices here are nominally quoted at \$6 to \$6.25 for choice seed. Dealers state that Canadian farmers frequently miss a good market in England through the custom of threshing late in the season. Already shipments of American clover seed have been made

(Continued on page 26.)

## THE BAIN WAGON



### IS THE FARMER'S FAVORITE.

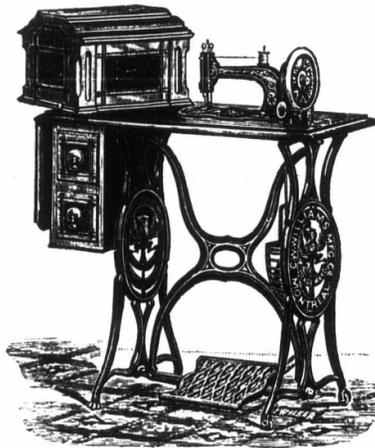
**Because** it is the lightest running wagon made.  
**Because** it is made in the most careful manner, from the best selected seasoned timber.  
**Because** no inferior iron is used, and special attention is paid in ironing it off.  
**Because** the wheels before the tire is put on are thoroughly saturated in boiling linseed oil, which is a sure preventive of loose tires.  
**Because** the patent arms made from our own patterns are superior to those made by other makers.  
**Because** all material used in painting it is of the finest quality, which gives it a superior finish.  
**Because** every wagon is inspected in all its parts by one of the members of the company before being sent out.  
**Because** it is just as represented every time.  
**Because** "The Bain Wagon" is warranted to be well made and of good material, and any breakage occurring with fair usage within one year, by reason of defective material or workmanship, will be made good by any of their agents, upon the purchaser producing the broken or defective part as evidence.

Agents wanted for every county. Send for descriptive circular and prices to the

**BAIN WAGON COMPANY,**

Woodstock, Ont.

N. B.—We make a specialty in spring wagons. Prices given on application.

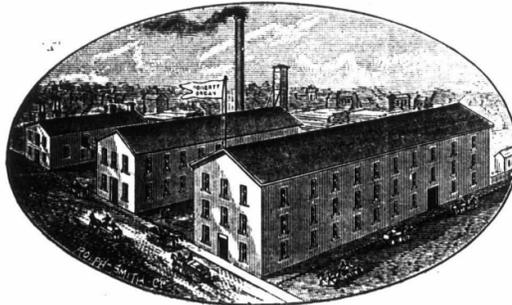


### Still Another Victory.

Victory has once more perched upon the banners of the Williams Manufacturing Co. They have just carried off three silver medals two bronze medals and three first prizes at the Centennial and Dominion Exhibition at St. John, N. B. The medals were awarded for improvements in sewing machines and the prizes for best samples of work done on the grounds. This grand success proves beyond dispute that the Williams' Company's sewing machines are to-day, as in years past, the leading machines in the market, and intending purchasers will do well to make a note of these facts. The Williams Co. have, in a few short months, rebuilt their factory which was destroyed by fire last Spring, and are now turning out, as usual, the best sewing machines in the world.

Head Office—347 Notre Dame St., Montreal, Q.

**CONTINUED SUCCESS.**



WM. DOHERTY & CO.

**ORGAN**

MANUFACTURERS,

CLINTON, ONT.,

Were awarded a  
**GOLD MEDAL**

at the Hullett Show  
this year.

x215-a

to London and Liverpool, while a great portion of Canadian seed has yet to be got ready for market. It is generally conceded that the Ontario crop is short. Advices from Chicago report a firmer market at \$6 to \$6.10 for choice clover, and in New York prices are quoted at \$6.15 to \$6.45. In Toledo on Thursday last sales were made of 40 bags prime clover seed at \$5.90; 150 do., \$5.90; 150 do., \$5.90; 23 do., \$5.90; 20 do., \$5.90; 15 do., \$5.90; 40 do., \$5.90. Sellers January, 200 bags at \$5.95; 100 do., \$5.95. A seed firm in Liverpool, writing by last mail, says that choice American clover is worth 55s per cwt.

#### CHEESE

has ruled very steady, and the prospects now are that the market will open next spring with light stocks.

#### BUTTER

Fine goods are wanted and will be scarce, while mediums are not wanted, unless at a very great reduction on the price of fine goods.

#### THE WOOL MARKET.

Reports from Boston indicate a dull market, the sales of the past week showing a large decrease, aggregating 1,732,400 lbs., against 3,107,000 lbs. for the week previous. Except for finest foreign wools, prices have an easier tendency. Here the market is quiet but steady for fine Cape and Australian. Cable advices from Montevideo report an advance of 5 to 10 per cent. upon rates ruling at this time last year. Higher prices have also been established at Buenos Ayres with stocks lighter than a year ago, and wool which last year brought 39 reals is now worth 42 reals. At the closing of the last London sale cross breeds and sound combing merinos were 3d per lb. higher than at the close of the preceding sale. Large quantities of choice wool are being shipped from the Cape of Good Hope to London.

#### THE FARMERS' MARKET.

Toronto, Dec. 30.

The receipts of grain on the street were light during the past week, and prices have tended downwards. The receipts amount to about 2,000 bu. of wheat, 2,500 bu. barley, 1,000 bu. oats, 400 bu. peas, 180 bu. rye, 180 loads hay, 20 loads of straw. The market to-day was quiet and prices easy. About 200 bushels of wheat sold at \$1.04 to \$1.05 for fall, \$1.10 for spring, and 80c to 82c for goose. Barley quiet, with sales of 300 bushels at 60c to 68c. Oats nominal at 35c to 36c; a load of peas sold at 74c, and rye is nominal at 62c. About 10 loads of hay sold at \$5 to \$8 for clover, and \$9 to \$11.50 for timothy. Straw sold at \$8.50 to \$9.50. Potatoes, few in market, sold at 85c to 90c per bag. Hogs higher at \$6.50 to \$6.75. Butter, pound rolls, 22c to 24c. Eggs, fresh, 26c per dozen. Apples \$2.25 to \$3 per barrel.

#### PROVISIONS.

The market has been rather quiet, and there was a tendency to easier prices in most lines except hogs. The outside markets have been very little changed. Cheese is firmer in Liverpool. Chicago has been nominally unchanged, but somewhat irregular.

Bacon—There is very little doing except in small lots. But prices are firm owing to a slight advance in hogs. Long clear is quoted at 8½c to 9c; rolls and breakfast bacon, smoked, 12½c to 13c.

Hams—Quiet. Smoked quoted at 13c.

Lard—In light demand and unchanged at 11c to 11½c for small lots of tubs and pails.

Pork—Steady; small demand; quoted at \$16.50 to \$17 for small lots and single barrels.

Beef—Demand quiet; moss quoted at \$14; plate at \$15.

Butter—The market is over-stocked with medium and inferior goods. Choice tubs are worth 19½c to 20c, and the demand is good. Medium in tubs and large rolls is not more than 16c, and slow of sale. Inferior is quoted at 11c to 13c. Prices for all except first-class will be maintained.

Cheese—The market is quiet and prices steady. Fine goods sell at 12½c to 13c; medium 11½c to 12c.

Dried Apples—There is not many offering nor in sight, but the demand is also very slight. Prices are almost nominal; common are quoted at 9c to 9½c; evaporated at 14c to 15c.

#### LIVE STOCK MARKET.

There is a fair trade being done, and prices are steady. Cattle generally are in good condition, and values are

(Continued on page 27).

### Ontario Veterinary College

TEMPERANCE STREET, TORONTO.  
The most successful Veterinary Institution in America. All experienced Teachers. Fees, Fifty Dollars per Session. Session 1882-3 begins Oct. 25th. Apply to the Principal, PROF. SMITH, V. S., Edin., TORONTO, CANADA. 201-1

## 29 PERCHERONS

just landed, and others coming, holding numerous gold and silver medals recently won in France.

Send for catalogue.  
**A. ROGY,**  
332 PALISADE AVE., JERSEY CITY, N.J. U.S.A.  
213-c eom

**VIRGINIA FARMS & MILLS**  
For Sale and Exchange. Write for free REAL ESTATE JOURNAL.  
B. B. CHAFFIN & CO., Richmond, Virginia

## KNABE

### PIANOFORTES.

UNEQUALLED IN  
TONE, TOUCH, WORKMANSHIP and DURABILITY  
**WILLIAM KNABE & CO.,**  
Nos. 204 and 206 West Baltimore Street,  
Baltimore, No. 112 Fifth Avenue, N. Y.  
214-c

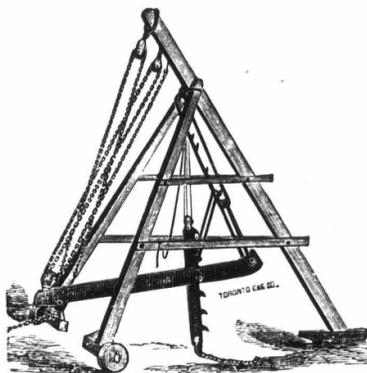
## DITCHING MACHINE

FOR UNDERDRAINING.  
Will do more work than 30 men with spades. Guaranteed to give satisfaction. Send for circular. Address

**WM. RENNIE,**  
Sole Manufacturer and Patentee,  
211-f  
TORONTO, CANADA.



PROCURE THE BEST.



The Whitfield Stump Extractor.

The superiority of this machine consists in the rapidity and ease in which it can take out the largest stumps; the ease with which it is operated by man or beast, and the great strength and durability of this machine. It leaves no holes to fill up, nor any stumps or snags in the ground. Send for circular of testimonials and particulars about it before purchasing an inferior machine.

**N. WHITFIELD,**  
Dominion Chain Works,  
Front Street, Toronto

902-ft

### THE MOST EXTENSIVE PURE-BRED LIVE STOCK ESTABLISHMENT IN THE WORLD!



Rare Individual Excellence and Choice Breeding.  
New Importations Constantly Arriving.  
CLYDESDALE HORSES,  
PERCHERON-NORMAN HORSES,  
ENGLISH DRAFT HORSES,  
TROTTER-BRED ROADSTERS,  
SHETLAND PONIES,  
HOLSTEIN AND DEVON CATTLE

Our customers have the advantage of our many years' experience in breeding and importing, large collections, opportunity of comparing different breeds, low prices because of extent of business and low rates of transportation. Catalogues free. Correspondence solicited. Mention the FARMER'S ADVOCATE.

**POWELL BROS.,**  
Springboro, Crawford County, Penn.  
211-1

### THE MONTREAL HORSE EXCHANGE

Stock Yards, Point St. Charles,  
Montreal, P. Q.,  
ARE IMPORTING

50 CLYDESDALE STALLIONS  
and MARES, and 100 PONIES  
of Different Breeds.

Consignment Arriving Weekly.

This establishment has now completed such arrangements that it can offer better advantages to those wishing either to import or export live stock of any kind than any other firm on this continent.

Farmers and others who either wish to import, or export, or purchase horses, or any other live stock, would consult their own interest by first applying to the Stock Exchange, as this firm can procure and supply animals better and cheaper than farmers can import for themselves.

Write for full particulars.  
**C. M. ACER & CO.,**  
215-ft PROPRIETORS



If this preparation is used at this season of the year it will prove very profitable to the farmer. By destroying the ticks now the animals put on flesh, the quality and quantity of the wool is improved, and they come out in the spring worth 30 per cent. more money than if the Tick Destroyer had not been used. It is profitable to the farmer, and can be used at any season. A thirty-five cent box will clean twenty sheep.

**HUGH MILLER & CO.,**  
Agricultural Chemists, TORONTO.

214-d

higher. Fair to good butchers cattle are bought at \$4 50 to \$4 75, and \$5 for choice. Medium cattle, \$4 to \$4 25; common, \$3 50; and inferior about \$3 per 100 lbs. live weight. Sheep are in good demand for export as well as the local market. Good sheep bring 4 1/2c; ordinary, 4c per lb. Lambs in good demand, and bring 4 1/2c to 5c per lb live weight. Hogs were dearer, and bring \$5 to \$5 10 per 100 lbs. live weight.

### BRITISH MARKETS BY WIRE.

Cattle Lower—Sheep Steady.

LIVERPOOL, Dec. 24, 1883.

CATTLE.

Supplies of American and Canadian cattle heavy and the market weaker in consequence. Prices 1/2c lower than previous.

	Cents per lb.
Choice steers	14 1/2
Good steers	14
Medium steers	13 1/2
Inferior and bulls	8 1/2 @ 10 1/2

(These prices are for estimated dead weight; offal is not reckoned.)

SHEEP.

Offerings moderate, demand fair, and the market about steady.

	Cents per lb.
Best long woolled	19
Seconds	17 @ 18
Merinos	16 @ 17
Inferior and rams	10 1/2 @ 12 1/2

(These prices are for estimated dead weight; offal is not reckoned.)

### Dairy Notes.

The Convention of the Western Dairymen's Association will be held at London, Ont., on the first Wednesday in February.

The objectionable flavor in milk from feeding turnips or other roots may be avoided by giving the mess directly after milking. Feeding corn meal with the roots also greatly modifies their effects, besides increasing the setting of cream.

A Dundee, Scotland, dairyman was recently convicted of selling milk which had stood in a room in which a child was ill with scarlet fever. The milk absorbed the poison, and seventeen persons were infected with the disease, four of whom died.

Have you helped to start a Farmer's Club in your neighborhood. If not, do so without delay.

We hope each one of our readers will do us the favor to acquaint his friends and neighbors with the merits of this paper, and induce them to subscribe for it.

Premiums are sent at earliest possible date. Some cannot be safely sent till the first warm days of spring. You can have one, two, six, or fifteen premiums—if you send enough names. Do not be satisfied with one club.

All that is yellow is not butter.

Feed well, but waste no fodder.

Have you a work-shop for winter?

Dogs kill \$5,000,000 of sheep yearly.

Talk at the Farmers' Club meetings.

Long evenings for study in rural homes.

Have you commenced posting the books.

Well-sifted coal ashes kept dry will be valuable next summer for use in mixing with Paris green, to dust on potato vines. They are finer than plaster or gypsum, and can be spread more evenly over the plants. If allowed to become wet they are spoiled unless returned.

Perhaps there is a new subscriber or two who may not be aware of the fact, and so we repeat from last year. that a sufficient measure of oats kept dry for the purpose and placed over night in rubber or other damp boots will absorb the moisture and leave them in wholesome condition for the early churning.

## THE FAMOUS EASY-RUNNING Monarch Lightning Sawing Machine

IT BEATS THE WORLD FOR SAWING LOGS  
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SENT ON 30 DAYS' TEST TRIAL.



The boy in the picture on the left is sawing up logs into 20-inch lengths, to be split into stove-wood for family use. This is much the BEST and CHEAPEST way to get out your firewood, because the 20-inch blocks are VERY EASILY split up, a good deal easier and quicker than the old-fashioned way of cutting the logs into 4-foot lengths, splitting it into cordwood, and from that sawing it up with a buck saw into stove-wood. We sell a large number of machines to farmers and others for just this purpose. A great many persons who had formerly burned coal have stopped that useless expense since getting our Machine. Most families have one or two boys, 16 years of age and up, who can employ their spare time in sawing up wood just as well as not. The

### MONARCH LIGHTNING SAWING MACHINE

will save your paying money and board to ONE hired man and perhaps two men.

The boy at the right in the picture is sawing up cordwood in a buck frame. You can very easily use our machine in this way if you have cordwood on hand that you wish to saw up into suitable lengths for firewood.

A boy sixteen years old can work the machine all day and not get any more tired than he would raking hay. The machine runs very easily, so easily, in fact, that after giving the crank half a dozen turns, the operator may let go and the machine will run itself for three or four revolutions. Farmers owning standing timber cannot fail to see the many advantages of this great labor-saving and money-saving machine. If you prefer, you can easily go directly into the woods and easily saw the logs into 20-inch lengths for your family use, or you can saw them into 4-foot lengths, to be split into cordwood, when it can be readily hauled off to the village market. Many farmers are making a good deal of money with this Machine in employing the dull months of the year in selling cordwood.

It makes a great difference in labor and money both in using our machine, because you get away with a second man. It takes two men to run the old-fashioned cross-cut saw, and it makes two backs ache every day they use it. Not so with our saw. We offer \$1,000 for a sawing machine that is EASIER OPERATED and FASTER RUNNING than ours. Every farmer should own our machine. It will pay for itself in one season. Easily operated by a sixteen-year-old boy.

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F. BUTTER, Hicksville, O., writes:—It runs so easy that it is JUST FUN to saw wood.

C. A. COLE, Mexico, N. Y., writes:—With this machine I sawed off an elm log, twenty-one inches in diameter, in one minute, forty-three seconds.

Z. G. HEGE, Winston, N. C., writes:—I have shown your machine to several farmers, and all pronounce it a PERFECT SUCCESS.

WM. DILLENBACK, Dayton, Tex., writes:—I am WELL PLEASED with the MONARCH LIGHTNING SAWING MACHINE. My boys can saw WITH ALL EASE.

L. W. YOST, Seneca, Kan., writes:—I will bet \$50 that I can saw as much with this machine as any two men can with the old-fashioned cross-cut saw.

T. K. BUCK, Mt. Vernon, Ill., writes:—I have given the Monarch a fair trial, and can truly say it is ALL YOU CLAIM FOR IT, a complete success, enabling a boy to do the work of two strong men, and indeed, more. I would not take \$75 for the Monarch and be deprived of the privilege of having another like it. I sawed off a twenty-inch solid water oak log twelve times yesterday in FORTY-FIVE MINUTES.

J. M. CRAWFORD, Columbia, S. C., writes:—I tried the Monarch on an oak log to-day before twenty farmers. All said it WORKED PERFECTLY.

### Stock Notes.

All importations of hog meats into France will be absolutely prohibited after January 20th.

The FARMER'S ADVOCATE for 1884 will surpass, in excellence and variety of matter, any previous volume.

Messrs. Laidlaw and Jackson, of Wilton Grove, Ont., purchased from Mr. Main, of Boyne P. O., Ont., an imported Cotswold buck which took first at the Western Fair, and all other exhibitions where exhibited, in fact was never beaten.

We would direct the attention of our subscribers to the date annexed to their address on this paper. This date signifies the time up to which the subscription is paid. We respectfully request those whose subscriptions are expiring, or have expired, to remit for the ensuing year.

One Illinois stock-raiser, who gives about one-third oil-cake to two-thirds corn, with rough feed sufficient, tells the Prairie Farmer that with this ration his beef cattle fatten one-third faster than with corn alone. Another says his animals never took on flesh so rapidly as since he began the use of oil-cake.

John Snell & Sons, Edmonton, Ont., report sales during the month of December as follows: James Carswell, Renfrew, Ont., seven Short-horn cows; to James Graham Pine River, Ont., one bull; to J. B. Ridd, Rothsay, Ont., one bull; to Edward Pender, Compton, Que., one Cotswold ram.

Professor E. M. Shelton, of the Kansas Agricultural College Farm, having tired of the necessarily wasteful way of feeding loose salt to stock, now finds that a six-inch square lump of rock-salt in a box to which the animals have free access at all times is an economical and healthful plan which proves "entirely satisfactory."

The following is a list of sales of South-down by John Jackson, Woodside Farm, Abingdon, Ont.:—To Edward Moore, one ram lamb; Geo. A. Parrott, two ewe lambs; Wm. Martin, two ewes; Thos. Wait, one ram lamb; Wm. George, one ram lamb; Peter McIntyre, one ram lamb and two ewes; D. M. Naismith, one ram lamb; J. W. Springstead, two ewes and two ewe lambs; Jas. Campbell, one ewe and four ewe lambs. The demand for Southdowns has been good, increasing as the season has advanced.

J. G. Snell & Bro., Edmonton, Ont., report the following sales of Cotswold sheep:—To J. W. Cole, Sedalia, Mo., two rams and one ewe; Robert Vance, Millbrook, Ont., one ram; H. Sorby, Guelph, one ram; R. H. Thomson, Chesly, Ont., one ram; J. Wilson, Shelburne, Ont., one ram; N. H. & J. Cowdry, Regina, N. W. Territory, one ram and three ewes, and two Berkshire pigs; J. Walker, Grahamsville, Ont., one ram; J. V. Snell, Edmonton, Ont., one ram; L. W. Cheyne, Brampton, Ont., five ewes; S. Hartman, Clairville, Ont., one ram; James Neely, Tullamore Ont., one ram and two ewes, besides a large number of Berkshire swine, and for which they report an increasing demand.

SIR,—Enclosed you will find one dollar for the FARMER'S ADVOCATE for one year. My father used to take it, so I think I will take it now, as I like it very much. I am only a boy 12 years of age. W. B. B., jr.  
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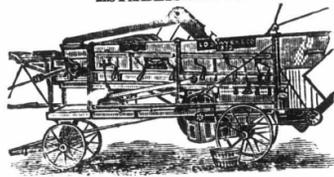
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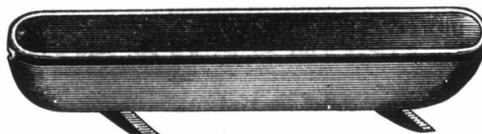
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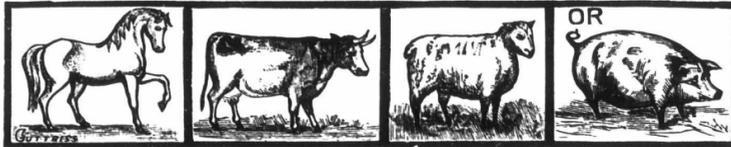


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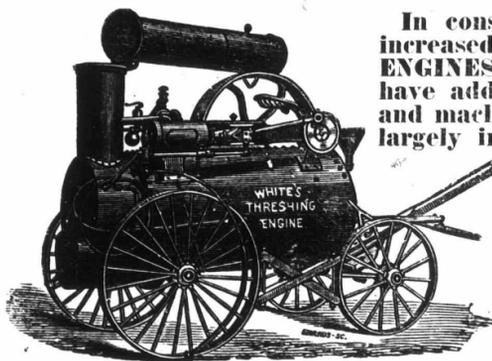
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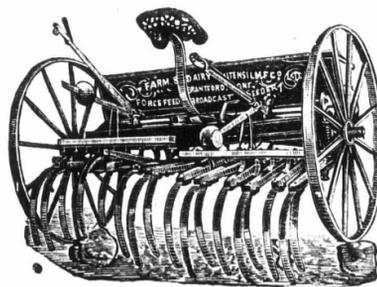
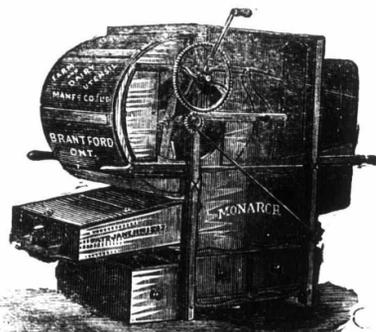
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