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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE



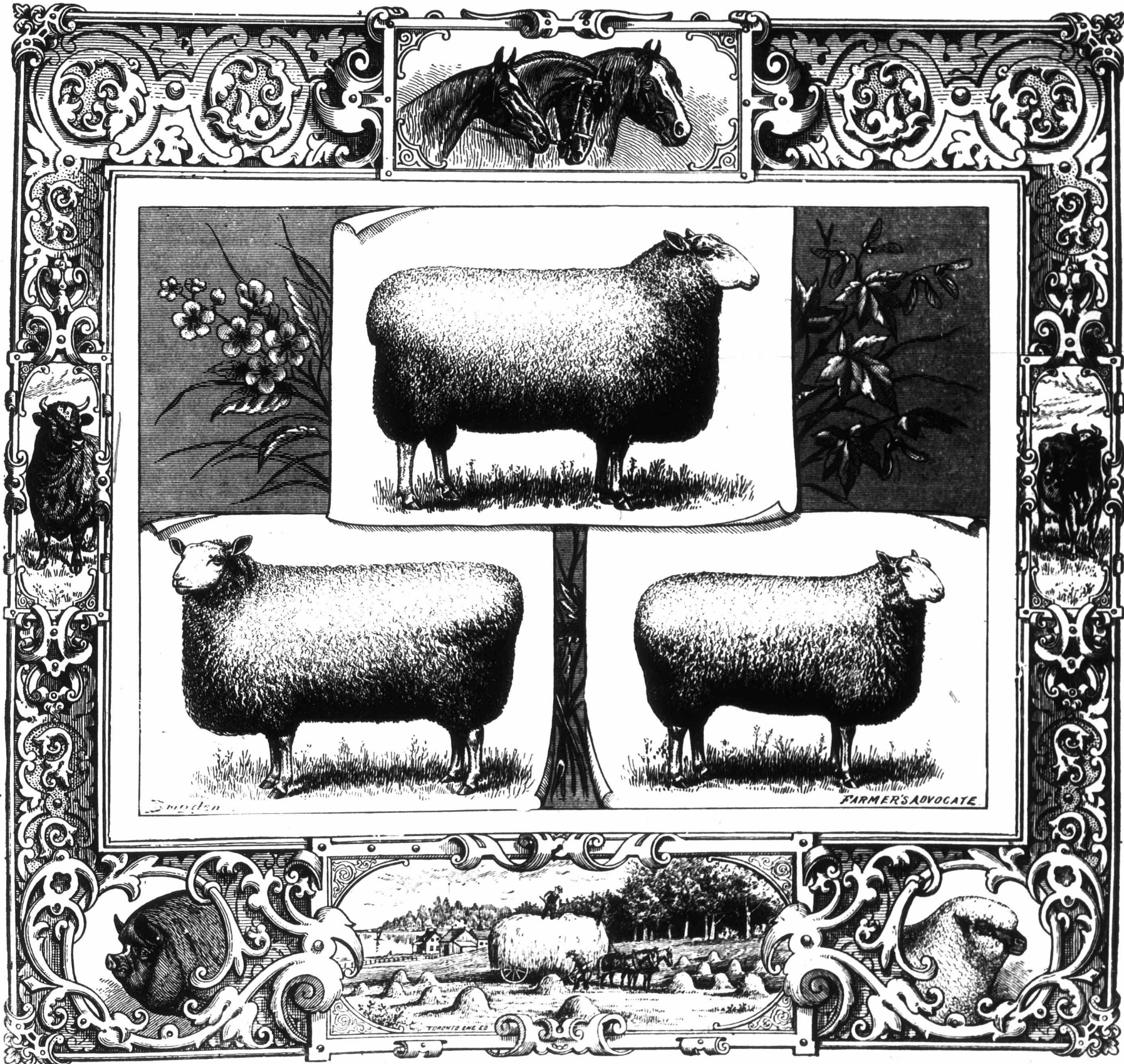
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VOL. XXVIII.

LONDON, ONT., AND WINNIPEG, MAN., DECEMBER 1, 1893.

No. 347.



A GROUP OF PRIZE-WINNING LEICESTERS.  
THE PROPERTY OF MR. JAMES SNELL, CLINTON, ONTARIO.

## EDITORIAL.

## James Snell's Leicesters, Shorthorns and Clydesdales.

At the World's Fair no class of live stock was more creditable to Canada than the Leicesters. Nearly all of those shown were home-bred. As previously reported, Mr. James Snell, of Clinton, Ont., was a most successful prize winner in this class. Soon after his return from Chicago, one of our staff visited his farm and carefully inspected his live stock. We found him a good all-round live stock man. Like his noted relatives, John Snell's Sons and J. G. Snell & Bro., of Edmonton, Ont., he and his ancestors are well and favorably known by the lovers of fine stock in Canada.

His Leicesters, one and all, are a good lot, very uniform in type, large, of good quality and well woolled. The breeding ewes are very handsome, not a poor specimen in the entire flock, but many good ones. The ewe lambs are, like the ewes, large, even, of good quality, well woolled and handsome. The ram lambs were promising. Next year we will expect to see Mr. Snell out with some very thick-fleshed, heavily-wooled yearling rams. Four yearling rams now grace the pens; they are good in every particular, so are the yearling ewes. The ram at the head of the flock is imported Sherborn Boy, a recent winner at the Royal Show of England. He is a sheep of large size, and carries a fleece of good quality. The photo-engraving on our front page shows this animal as he stood in the field among the ewes. The artist has not flattered him in any particular. Since being imported, he has won second place in Chicago in his class. He also headed the flock of one ram and three ewes, two years and over, which took first place.

The ewe to the right in the engraving is of great substance; she won first in the three-year-old class at Chicago. The other ewe is two years old, of the same type and general excellence as the last named; she also won first in her class at Chicago, and sweepstakes for best Leicester ewe any age. These ewes were bred by their owner. Mr. Snell's flock of Leicesters has been established for about forty years.

## HIS SHORTHORN HERD

was established in 1861, and ever since has been bred most carefully with a determination to produce thick-fleshed, vigorous, short-legged cattle, and well has the proprietor succeeded. The herd, like the flock, is uniform. The short, strong legs of the animals carry massive, thick-fleshed bodies, which are in nearly every case covered by splendid hides and grand coat and hair. A visitor is at once impressed by the uniform thickness of heart and ruggedness of the individuals. They are a lot of "rustlers" which need no pampering.

One of the cows, Daisy 2nd, bred by the owner, got by Vice-Consul, bred by S. C. Isaac, Baltimore, Ont., is very handsome; at the present time she is the plumpest in the herd. Her coat is mossy and her skin soft and pliable. She is just the sort most sought after by practical men who know a good one when they see it. This cow has been successful in the show ring.

Sea Bird is a full sister to Daisy 2nd, and, like her, is a beautiful roan. She is large, showy and evenly fleshed—not an animal on the farm possesses more vigor and robustness. She should grow into a wonderfully good, useful cow.

Daisy, the dam of the two last named, is a strong, useful red and white. Like her produce, she is massive and near the ground, a grand milker and extra breeder. She is the oldest of a tribe that has been kept on the farm for generations.

Irena 13—14271—is a dark roan and is of the same type, a good cow and a remarkably heavy milker. She is the dam of three bulls, two of which have been very successful in the show ring. Her daughter, Blue Bird, by Vice-Consul, is a beautiful heifer calf, in type much like Daisy 2nd. She is promising in many respects.

Crimson Rosebud is another of this family. Her dam is Irena 12th, sire Vice-Consul. This is a beautiful dark roan heifer, with well-sprung ribs, good top and bottom lines; she is good in all points and has been a successful prize winner.

Strawberry—14274—is a large, dark red cow, a very successful breeder. She is the dam of the bull now being used by Mr. John McMillan, M. P., Constance, Ont. Her daughter, Moss Rosebud, also red, is of rare quality, short legged, thick fleshed and smooth—every inch a show cow. She is the dam of a fine red heifer calf. Two prime young bulls adorn the stables; their dams are Daisy and Daisy 2nd. They are a pair of lusty, vigorous

youngsters, possessing the characteristics of the herd. One of them has won first place in the show rings three times this fall.

The animals mentioned are but specimens of the herd. There are many other good ones, but space will not allow us to particularize further. When the herd was established the show cow Strawberry, by Cobden, was purchased from the late John Snell, of Edmonton. She was a famous prize winner, and was the foundation of the Strawberry family now in the herd. The next cow was purchased from F. W. Stone, Guelph. She was a Provincial prize winner. Next came Agness Buckingham and Irena, bought from John R. Craig's herd—the last named was a prize winner at the leading shows of that day. Agness Buckingham is a heavy milker. All the cattle on the farm trace to these cows.

The bull at the head of the herd is New Year—17251—, now fifteen months old. He is a smooth, stylish fellow, bred by J. & W. Watt, Salem, Ont., and is a half brother to Col. T. S. Moberley's world-famed bull, Abbottsburn, which was also bred by Messrs. J. & W. Watt.

## THE CLYDESDALE STUD

is composed of four mares and an entire colt, Hullett's Pride, foaled April 18th, 1892, by Andrew Lammie, dam Gypsy Queen. This is a large, showy, smooth, upstanding colt. He won second at Toronto in 1892, first at London, first at Goderich, first at Clinton, first at Blyth, and sixth at Chicago. His dam is a fine, thick, well-turned mare; like her son, she is a good mover. Her muscular legs are covered with plenty of fine silky hair. She was placed second at the Highland Society's show in 1890, and has since been a prize-winner at Toronto, London, and other leading exhibitions.

Imported Bess is a thick, massive, short-legged, fresh-looking old mare, the possessor of a robust constitution, and many other good qualities. She is sixteen years old, and is in foal. She has won many prizes, including Provincial diplomas. Her daughter, now one year old, is of much the same type, and will doubtless prove a valuable brood mare.

Jess is another imported mare, but space forbids further description of the Clydesdales or the Berkshire pigs kept here, all of which are purely bred and duly recorded.

Mr. James Snell's brother, Mr. William Snell, lives on the adjoining farm, and breeds and imports Clydesdales and Shropshires. We hope at a future time to give a description of his live stock.

Wm. O. Telfer, Telfer P. O., Ont., is a believer in the degeneration of wheat into chess. His proof is, he says, that his uncle, the late Adam Telfer, about thirty years ago procured a head half wheat and half chess, while he procured a fine bunch of chess in 1891, the roots of which originated in a head of wheat, and apparently came directly from the berries of the head.

If large trees are to be removed, December, or earlier in northern localities, is a good month to begin operations by excavating a large hole where the tree is to stand, and digging a deep ditch around the tree, and at some little distance from the trunk, so as to ensure having plenty of roots. Then when the ground is thoroughly frozen the tree with the solid lump of earth adhering may be removed, and set in its new home with good prospects that it will survive the ordeal and come out safely in the spring.

The news of the discovery of a preventative for tetanus or lockjaw will be welcome information to all our stockmen, and especially to horse breeders, for the horse is more susceptible to this disease than any other class of live stock. Recent investigations prove that it never appears as a primary disease of itself, but is invariably the result of wounds. It has long been known that wounds impregnated with dirt are liable to lead to lockjaw, but it is only of late that the disease was found to be due to the presence of a special microbe in the dirt. An Italian, Professor Tizzoni, of Bologna, has introduced a substance which he calls *tetanus antitoxin*, which has in a large number of cases proved curative in man as well as in the lower animals, some of the cures being of a very surprising character. Horses or other animals are first rendered immune, and from their blood the antidote is prepared, and the patient is treated with a hypodermic injection of the substance. The subject is at present attracting great attention among medical men and veterinarians on the continent. It is to be hoped that further experiment will confirm the high opinion already formed by eminent scientists of the importance of the new treatment.

## 'Let Us Hear from You!

It is the duty of everyone in this period of depression to do whatever he can, both by word and deed, to strengthen the hearts and hands of others.

If your experience has been such that you are not feeling the hard times quite so much as others, it would be generous for you to come out and state wherein the secret lies. It will do you no good to keep it to yourself, but it will be a benefit both to yourself and probably to many others, to point out the way in which it has been made easier for you to weather the storm of hard times.

Let us hear about your farm management, how you have succeeded with your crops. Is your experience in horse-breeding satisfactory? How do your pigs and poultry pay you? What have your sheep done for you? What success have you had with your orchard this year? Has the dairy herd fulfilled your expectations? In short, what department of your farm have you found the most successful?

On the other hand, if you have lost money in any department of the farm, tell us to what you attribute such losses; what remedy would you recommend to guard against such losses in the future? Let us hear from you about these things. You will find both a pleasure and a profit in doing so, for a careful review of your affairs will impress the good and bad points of your management more firmly in your mind, and thus enable you to receive more profit from your own experience. This is not the only benefit you will receive, for you will also have the satisfaction of feeling that your experience will be of some use in helping your brother farmer.

It may not be wise at all times for a merchant or manufacturer to tell others the secrets of his success, but a farmer cannot lose anything by telling his neighbor how he managed his farm so as to make it yield, if not a fortune, a good living, even at a time when everything appears to be at its lowest ebb.

The FARMER'S ADVOCATE, as its name implies, is published solely in the interests of agriculturists. It seeks to disseminate knowledge which will be of interest and value to all who read it, and nothing can be of more importance to them than letters from practical men who are able to demonstrate the fact that there is still, not only hope, but also bright prospects for the great industry by which we live, if we only take unity for our motto and stand shoulder to shoulder in defence of our common interests. Let us have a regular experience meeting each issue; we pay our friends for the time they spend in writing to us. See page 455.

## The Ontario Agricultural and Experimental Union.

The annual meeting of the above society will be held at the Ontario Agricultural College on the 21st and 22nd of December. This Association has developed wonderfully during the past year, and now carries on the largest co-operative experimental work in the world. As regards the magnitude of the work which has been performed during the past season, we cannot do better than refer our readers to the last issue of the ADVOCATE, page 434. The Committee in charge have spared no pains in order to make this the most successful meeting ever held. Many prominent agriculturists have signified their intention of being present and taking part in the discussions. The following gentlemen will read papers or deliver addresses on the subjects which are set opposite their names:—Prof. C. C. James, Deputy Minister of Agriculture: "The Social Condition of the Farming Community." W. W. Hilborn, Leamington, Ont.: "Horticulture in Ontario." Prof. Thos. H. Hunt, Columbus, Ohio: "The Value of Stock Feeds." Wm. Mulock, M. P., Aurora, Ont.: "How to Improve the Financial Condition of the Farmer." John Harcourt, A. O. A. C., St. Annes, Ont.: "Sheep." T. H. Mason, Stafforville, Ont.: "Hog Raising for Profit." R. F. Holterman, A. O. A. C., Brantford, Ont.: "Success in Bee-Keeping." In addition to the above a very interesting report may be expected from the chairmen of the different committees on experiments who have had charge of the work for the past year. Programmes and full particulars regarding railway fares, etc., may be obtained from the Secretary, R. F. Holterman, Brantford, Ont.

Mrs. E. M. Jones, of Brockville, Ont., referring to her own practical experience and that of that of others in dairying, says:—"It makes my heart sick to see those of my own sex wishing they could earn some money peddling books and corsets, working in factories, or writing trashy novels for only enough to keep body and soul together, and all the time they have right at hand an industry more noble, more profitable, and far more independent—one that will elevate themselves and the whole community, and confer a lasting benefit upon the country in which they live and die."

**THE FARMER'S ADVOCATE & HOME MAGAZINE**

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**Prize Articles—New Offer.**

In order to afford readers generally an opportunity to contribute to the columns of the FARMER'S ADVOCATE, thereby increasing its interest and value to all, we will give a prize of \$5 for the best, most practical, and most seasonable article received each month, the subject being left to the writer's choice. Articles should be written sufficiently "ahead of time" to enable readers to utilize the ideas contained the same season, and must reach us not later than the 15th of each month. Articles not awarded the prize, but of sufficient merit to use, will be paid for at the rate of ten cents per inch—our regular offer, as above.

**Gambling in Food Supplies.**

The greatest evil of the present day is the ease with which a number of the great monopolists control the different food supplies, in the production of which the agriculturists of this continent are so intensely interested.

Farmers may strive to their uttermost to produce large crops of grain, or, with equal enterprise, go extensively into feeding hogs or beef cattle, and just when these are ready for market the gambler gets in his little game, and it matters not if the product is short or plentiful, by endless scheming he manages to get more than his legitimate profit.

At one time men of moderate capital contrived to get a living by handling the produce of the soil, and grain-shipping and pork-packing was carried on by large numbers of men who, by bitter experience, have been forced to give way to a few larger monopolists, whose whole study is to manipulate markets so that they may turn to account the losses of others less fortunate. Hutchins runs a corner on wheat, Cudahy does the same on pork, somebody else tries his hand on corn, while the Big Four, at Chicago, control the beef and refrigerator meat business of a continent.

There is no greater evil to the trade generally than the running of corners; it has destroyed confidence in our markets, while the wide fluctuations caused by speculators in their endeavors to get produce below cost has killed out the smaller dealers.

Many, on account of their heavy investments, cannot draw out if they would, but it is safe to say that none relish the hourly changes in the value of their stocks on hand. In the earlier days, when there were no "corner" runners, there were fair profits for all and far less worry.

The world is large and the consumptive demand ever increasing, but such gross uncertainty reigns through fictitious values that no dealer knows where he stands.

"Phil" Armour gives his million toward an Institute of Technology, and others subscribe largely of their ill-gotten gains to charity, and the world looks on and applauds.

Statistics may show there is a short crop of hogs, good demand, unprecedentedly low stocks, but if these generous, noble-hearted gentlemen want your stock they will hammer prices down till you have not a dollar left and must let go. Then, when they have it all, to keep stocks low and avoid concentration, they will send large quantities abroad and sell it to foreigners at prices away below home quotations in order to keep the supply short and the market up. They know where almost every pound of stuff is, and just how much squeezing the holder can stand. When he is cleaned out and his pockets turned inside out, then they run it up and clean out the consumers, pausing occasionally to wipe out some of the producers who may have bought again some of the stuff they sold too cheaply.

Ordinarily gambling only hurts the gamblers and their families, but this constant gambling and the excessive fluctuation in the necessities of life reach every citizen with a family, and are making Americans more a nation of gamblers than traders. The gamblers control our produce. They must have it at rock bottom and sell it at the top notch. The producer and consumer are not a consideration to these jolly fellows, who meet together a few hours daily to play shuttlecock with our bread and bacon, and then give a million dollars of conscience money to charities.

**Facts Concerning Apple Spot.**

The main points to be remembered in connection with this malady are that it is caused by a minute parasitic fungus, a low form of plant life, which, by living on the leaves and fruit of the apple, prevents assimilation in the former and the development of the latter. It is not so generally known that the same fungus attacks both the leaves and the fruit. A few facts to be remembered in connection with successful treatment are: 1. That it is perpetuated by spores, which take the place of seeds. 2. That these spores, formed in the autumn, live over winter upon the old leaves, fruit and young branches. 3. That these germinate in the spring as soon as conditions are favorable, which is usually about the time the young foliage is developing. The efficacy of the copper salt remedies have now come to be generally recognized, and the fruit grower who does not use these remedies is neglecting a simple precaution in direct opposition to his best interests. Ammoniacal copper carbonate and dilute Bordeaux mixture (half strength) are now the leading fungicides for apple and pear scab and grape mildew.

**Ram Sales.**

BY D. MCCRAE, GUELPH.

The time has come in the sheep industry of Ontario when a better system is needed for the disposal of pure-bred rams. That which obtains favor with the foremost sheep breeders in Britain is the system of auction sales at convenient centres. This could very well be managed under the auspices of the Dominion Sheep Breeders' Association. The subject is one worthy the consideration of the members of this Association at the coming annual meeting, to be held during the Fat Stock Show in Guelph early in December.

In Britain the system of annual sales has been long in vogue and is very popular. In fact, it is so popular that it is fast taking the place of the old style of dickering at local fairs, and now nearly all animals sent to the weekly or monthly markets are passed under the hammer. This has been an outgrowth of the system adopted at the ram sales. Shearing rams are those principally dealt in, though a few breeders offer ram lambs, but the latter are not in favor, as the breeders have learnt that mature sires are most profitable. With the sales there is usually a show, and it is a good test of the judging and the awards if the public endorse by bidding the awards of the judges. This is not always the case, however, and some well-known lots of old-established breeding will bring far higher prices than their appearance in a show ring would warrant. The top of the tree is held, not by the winner of the first at the show, but by the breeder who gains the highest average in the sale.

Every breeder knows that it is not always the highest fed and plumpest animal that he would select as the best breeder. He also knows that at our shows the prize animals are not always the ones the judges themselves would select to pay out their own money for as breeding animals to place in their own flocks. Such a sale might bring out the best from all the breeders, and it would certainly be an admirable method to bring buyers and sellers together. Not only would Canadian buyers be benefitted, but many Americans would no doubt come and see what was for sale, and be purchasers if they got what suited them. As to place for a beginning, the Agricultural College would be as suitable as any, and being a Government institution should be available for such a scheme. The accommodation would be ample, and if found convenient the College authorities could at the same time dispose of their surplus stock. The time is a matter of importance. That most suitable for the majority of the buyers should be chosen; it should not interfere with our large fall exhibitions. The breeders will be well able to name the best time. One day, or two at most, would be ample to do the work, as, if necessary, the selling of different breeds could go on simultaneously. The result would probably be a better class of sheep throughout Ontario.

**The Farmer's Tool House.**

We have often spoken of the convenience and value of a small tool house, which should be found upon the premises of every farmer, in which on rainy days, or whenever there may be a day or part of a day when there is nothing particular to go at, implements and machinery out of repair may be mended and made ready for use. Or in the event of anything happening when in operation, and at times, too, when work is hurrying, we can always have at hand the necessary tools to make repairs immediately, and go on with the work without much delay. We have often heard a farmer say that he had fully expected to have finished a certain field, if it had not been for that stone breaking some portion of his machinery, to repair which he had to send off two miles, when it should have been done by himself on his own premises in half an hour or so. Now, that very implement had shown signs of weakness the preceding autumn, but having no tool house or work shop, and no tools of his own, the necessary repairing was not done, and in the middle of the season, when everything is pressing, the very thing happens that he was afraid several months before would happen, and which he fully intended should be repaired in time for the season's work. It is really impossible to conduct a farm in all its parts as it should be without such a shop, in which so many things can be done at leisure times, especially during inclement weather. Allow us to urge everyone who lacks this important annex to all well-regulated farms to build such a shop and fill it with the necessary tools at once, in order that all requisite repairing may be done before the busy season again opens. Once established such a convenience, and the wonder will soon be how it was possible to manage the farm before without the little workshop.

### Please Remit Your Subscription for 1894.

We ask as a special favor that all our old subscribers will remit their subscriptions for 1894 as promptly as possible. Look at the label on your paper and you will know just when your present subscription expires. If the label is marked *Jan., 1894*, you will know that the December number, 1893, is the last for which you have paid. We ask each of our subscribers to consult the label bearing his name, and remit us promptly on the expiration of the present subscription. We prefer our old subscribers to remit direct to us; do not send your money through a third party. If you send money by registered letter or post office order we accept all risk.

### Bogus Butter Again—The Scheme Once More Exposed.

In the Dairy Department of our issue of Sept. 1st, we exposed another of those questionable projects by which farmers and others interested may easily be defrauded.

In reply to this we received a letter from the solicitor acting for Thurston & Ralston, 172 Yonge St., Toronto, in which we were given five days to decide whether we would apologize for what we had said in the article, if not they would immediately commence an action for libel, in which heavy damages would be claimed. We took no notice of this threat. We were then served with a legal notice as provided by law notifying us that we would have to defend ourselves in an action for damages brought by the above firm. This threat was also ignored by us, but we are glad to find the article is bearing fruit, as the subjoined letter implies:—

Peterborough, Nov. 18th, 1893.

To the Editor of FARMER'S ADVOCATE:

DEAR SIR:—At Toronto Police Court, Nov. 10th, I learned from Crown Attorney Curry you have warned the people through your valuable paper to have nothing to do with Thurston & Ralston, Butter Fakirs. I wished I had seen it in time, as they have defrauded me out of \$73 cash and put me to great expense in buying machinery to test their Butter Process, in all about \$175. I tested 700 lbs. good, pure milk, and put into it 53 lbs. of good butter, worked ten days, two men, preparing milk and churning, to get out 74 lbs. of inferior butter. I went to Toronto and had them both arrested and committed for trial at coming assizes.

Very truly yours,

KEARNS BROS.

We at present have no means of finding out how many parties these gentlemen have already entrapped, but that there are numbers of others we do know, as we have letters in which other victims give statements equally strong, and all are ready to give evidence against the scheme, which is being worked only too successfully.

It is only a repetition of what has occurred time and again. Accompanying the letter sent us by Messrs. Kearns was a business card, by which we learn how the device is being worked. The card reads as follows:—

#### "THURSTON'S NEW BUTTER PROCESS

will make two or three times the amount of butter that can be made by any other method yet invented. No chemicals or extra machinery required.

#### TO THE BUTTER PRODUCER.

It will make you one dollar per bushel for your corn. We consume \$10 worth of butter for \$4 worth of flour. We respectfully invite the examination of our new process for making butter, by which an increase of from two to three times the amount can be made from the same quantity of milk as by the old method. The old method produces four pounds of butter per hundred pounds of milk.

"Milk weighs ten pounds a gallon. One cow gives two gallons of milk a day, in one year will average about 550 gallons, weighing 5,500 pounds, and by the old method produces 220 pounds of butter.

"By the new process, eight pounds per hundred pounds of milk, 440 pounds of butter produced in one year. Again, by the use of the new process, over and above the old method of 220 pounds at 15 cents per pound, brings \$33 per year, or an average monthly increase of \$2.75 over the old method.

"A small factory churning 100 gallons of milk per day, counting 306 working days in the year, will churn 30,600 gallons, weighing 306,000 pounds, and by the old method produces 12,240 pounds of butter.

"By the new process of eight pounds per hundred pounds of milk, 24,480 pounds of butter are produced in one year, a gain by the use of the new process over and above the old method of 12,240 pounds at 15 cents a pound, brings \$1,836 per year."

We are also in receipt of their formula, which gives the instructions for manufacturing by their process, which it is not necessary for us to comment upon here.

We lay no claim of having tested their plan of buttermaking, nor do we intend to become enlightened in a system which condemns itself.

But this we do know that good milk contains four per cent. butterfat, and there should be eighty-five per cent. butterfat in good butter, the balance being water, salt, and a slight showing of casein—the less of the latter the better. Herein lies the difference between good and bad butter, as the more casein the quicker decay is hastened. England has considered the adulteration of butter of such importance that an act has recently been passed by which it is made criminal for any dealer to sell butter that contains more than fifteen per cent. water. Of what is the compound composed

which this firm pretends to produce? Certainly not pure butter, but an ingredient is incorporated that would be much more detrimental than water.

The Ontario Legislature is yearly expending large sums of money in dairy education, viz., by giving a substantial grant to the Creamery Association, by establishing and maintaining a Travelling Dairy, in order that a better system of butter-making may be taught and establishing expensive dairy schools at Guelph. The Ottawa authorities have established a number of creameries to teach patrons how to manufacture a better article for export, that the name of Canadian butter may obtain a higher standard, when along there comes a concern like this, striving to upset the good work already accomplished.

This is a subject in which vital interests are at stake, and for which special punishment should be provided. In our opinion legislation is required similar to that referred to as having been passed in England for the purpose of protecting the good name of this branch of our dairy interests, which is liable to be ruined by adulterations or any other means that reduces in an article sold as butter the percentage of butterfat. It should be made a criminal offence to manufacture and expose any such bogus goods for sale.

We will gladly receive communications from those who have been entrapped by this or any other scheme. It is our aim to aid in putting down any design that is being worked to the damage of the farming community.

## STOCK.

### Is Feeding Cattle Likely To Be Profitable?

As the season has now arrived when Canadian farmers who usually winter-feed cattle must decide what number they will place in the stables for this winter, as well as the most economical and advantageous manner of keeping them, it will be expedient, before entering fully into it, to ascertain what probability there is this season of realizing a remunerative profit.

In order to judge of the resources of this and other countries who are competitors in supplying the British markets, it is as well to look fairly at the situation. In the first place England herself has experienced a year of most excessively dry weather, and forage crops of every description have yielded very light returns, and it is a question if more than half the average weight per acre has been produced. Again, their stock of all kinds are remarkably lean and in many cases are in no condition to place in the feeding stalls, which will have the effect of making the English beef much later in finishing than usual. In addition to this English farmers are in no mood to purchase feed liberally. Stall feeding or any other manner of beef production has not paid them for several years, even when they had to have resort to this method of utilizing the bulky part of their crops. This season it is all the other way; in many cases a quantity of hay will have to be purchased to feed the different classes of stock they of necessity have to keep, while on the other hand they have shown an unusually strong disposition to get rid of surplus cattle and sheep at any price, and therefore an unusual quantity of unfinished cattle have been slaughtered. Scotland has fared better, the crops of that country being all that could be desired. But still, taking everything in consideration, there will be a very small output of finished cattle and sheep by English feeders next spring.

In this contingency the United States and Canada will have to supply certainly more than for several years past, and how the feeders are prepared to meet the demands will depend upon the quantity fed. Chicago cattle have been selling high all the season, and although for a couple of weeks the prices were naturally reduced through a heavier run than usual, yet for all at present the outlook is for better prices, both for finished cattle and Stockers.

Again, towards the end of the season most of the cattle-producing districts of Canada and United States have suffered largely from dry weather, and cattle are thinner than they have been known to be for years. This will have the effect of causing many of the best of feeding cattle to be slaughtered for home consumption, and will leave a correspondingly less number for feeding for export.

Prices for feeding stuffs are very low in Canada. A large quantity of hay has been sold at \$6 and \$7 per ton, while all kinds of grain are ridiculously low. It is impossible to conjecture what six months may bring about, but it looks just now as though the prospects for feeding extensively were never brighter than at present. Cattle can be bought cheaper than for years, while if they are no higher next spring, on this account they will make more money; but with every prospect for a substantial advance toward the end of winter, it will be strange indeed if feeders do not realize more for their labor and food expended than they have for many years. There is one point, however, that is already assured, and that whatever is worth doing in this line is worth doing well. And now this is more expedient than ever. Our cattle have to be slaughtered at the point of debarkation, and have no time to recruit after their voyage across. If they are to bring good prices they must be landed in prime condition. For this reason they must be pushed forward as fast as possible, that any rise in the next spring's markets may be taken advantage of.

### Ninth Annual New York Horse Show, at Madison Square Gardens.

This, the *ne plus ultra* of all horse shows, commenced on Monday, November 13th, 1893, and lasted all the week. To show Canadians what a grand affair it was, it is only necessary to inform them that, in this panic year, the boxes alone sold for \$20,000. With single admittance at \$1.00 each and seats 50c. extra, the building was crowded all through the week, especially through the afternoons and evenings, with elegantly dressed ladies and gentlemen. In the evenings nearly all appeared in full dress, thus making a magnificent display of the beauty and fashion of New York such as can be seen nowhere else.

The feature of the show, from a horseman's standpoint, was the display of standard-bred trotters, Kentucky saddle horses, Hackneys, imported, home-bred and half-bred, Russian Orloff trotters, Thoroughbred and Coach horses. Still, the largest class of entries was in high-stepping harness horses and in hunters, while there were great numbers of park hacks and hurdle horses. The Hackney world was quite astir in this show; and, as an instance of the great importance paid to this department of breeding, the following renowned stallions were brought out, such as Matchless of Londesborough, for which Dr. Webb gave \$15,000; Cadet, who cost about \$16,000 in England last year; Rufus, a three-year-old, imported by Geo. Green last year; Ottawa, the first prize horse at the World's Fair this year, and champion in the late Industrial, Prince Victor 2nd and The General 2nd. These all appeared in the ring together, although it was hardly fair for Ottawa and Rufus to show with finished horses which are veterans in the show ring, these two being only three-year-olds.

The show of mares in the Hackney class was also very superior, and here our Canadian friends who competed had no easy task, but they did manage to carry away a number of the honors, and by the voice of the spectators should have been further ahead in two or three of the classes.

As heavy horses were not on the list this year, the exhibit from Canada was not as large as last year. R. Beith, M. P., from Bowmanville, Ont., took down two stallions and two mares. His mares, Winnifred and Lady Aberdeen, took third and fourth respectively, and should at least, according to general opinion, have gained second and third, while his yearling colt took second in a large class; this is a very promising youngster who will be heard from again. But strange to say, the gay and brilliant Ottawa, that charmed the Chicago people, was hardly noticed by the imported Yorkshire judge. Such is life.

The Hillhurst Farm, owned by Hon. M. H. Cochran & Son, had forward a string of six Hackneys, including the one-year stallion, Royal Dane, and five magnificent mares. The invincible imported Yorkshire mare, Princess Dagmar, by Danegelt 174, was the fortunate first prize winner in a class of sixteen, and later on in the show won the championship prize for the best Hackney mare, all classes competing. This stable was also fortunate enough to gain second prize on the imported five-year-old mare, Vina, by Wildfire, while Miss Baker, the mare that cause such a sensation at Toronto in the harness class, was shown in the same class with Princess Dagmar. She and Lady Lind, by Greatshot, were not so successful, but the yearling filly, Cameo, by Danegelt, took second place. On the whole, a good share of Hackney money went to the Hillhurst stables.

In the Coaching stallion class, Mr. Thomas Irving, of Winchester, Ont., gained second with his fine horse, Prince Arthur, the Yorkshire Coacher which gained fourth place in Chicago. He is a magnificent horse, and had Mr. Irving himself led him in the ring he would have showed himself to better advantage.

On the whole, Canada kept her end up, as a great many of the high-stepping harness and saddle horses came from here, and for this reason we may be proud of what Canadians are doing in producing horses, which is not surprising when we remember the number who are engaged in importing and breeding in this country.

At Grand's official sale at Madison Square Gardens, on the Monday, long prices were obtained for Canadian high-steppers.

After visiting the show, we came back to Canada firmly impressed with the idea that, if a suitable building was provided in the city of Toronto, we would be able to hold a very successful show on the same lines as that at New York; while we would not expect as much style, a good, solid, four days horse show that would interest all could be held, which would advertise Canada in the best possible manner.

HENRY WADE.

**Southdown Sheep for Market.**

Address delivered by Geo. McKerrow, Sussex, Wis., at the last meeting of the American Southdown Breeders' Association, Chicago, Ill., September 27th.]

The Southdown has often been termed the rich man's sheep, mainly, I presume, because this breed is fostered largely by the nobility of England and the aristocracy of America, as well as from the fact that his flesh is the finest grained and best flavored, which causes the above-mentioned classes to seek after it for use upon their tables.

The market is the *finale* of nearly all the sheep grown, and it is in fitting for and selling upon the market that the Southdown becomes pre-eminently the poor man's sheep.

There are two considerations that influence every good sheep feeder in a choice of a breed to feed for the market:—

First, a good and quick return for food consumed. In this respect the Southdown is second to none, as all competitive tests at experiment feeding stations will testify, notably the five years test at the Ontario station, where the grade Southdown showed an average profit of \$6.60, followed closely by its relatives, the Shropshire and Oxford, leaving far behind the other mutton breeds, none of which came within \$2.50 per head of the profit of the little Southdown.

Second, a sheep that will turn the food consumed into the highest priced product. Every good mutton market in the world will testify to the claims of the Southdown on this point—even the Chicago market recognizes the merit of the choice Southdown.

His great constitutional vigor, as shown by his bold, bright, large eye, full chest and large heart girth, as well as his perfect mutton form, shown in his wide shoulders and well-sprung rib, which ensures the broad back, wide loin, rump and hips, with full thigh or twist—in short, a round, plump body on short legs, with no excess of wool or yolk to draw feed from its more profitable work of meat production, makes the Southdown the practical feeder's ideal to feed for profit, and the butcher's ideal to cut upon the block, as in this plump, finely formed carcass he finds the greatest percentage of the high priced cuts, consequently he can pay more for it and yet get a greater profit in return.

One great injustice done the Southdowns and some other dark-faced breeds in the Chicago market is that nearly all the sales of the dark faces are credited to Shropshires. (While I must admit the Shropshire is a grand breed of sheep, yet in justice to the other good breeds this should not be.) The old charge against the Southdown that it had but little wool on the pelt is now in its favor. Every pound of wool over a sufficient amount to protect the carcass is now produced at a loss, and I have found in my experience that the heaviest fleeced sheep of every breed, as a rule, are not the best feeders.

I may here say that while I believe the Southdown to be one of the best sheep to feed for market, yet nearly all the breeds have their good qualities, and will find sections in this wide country of ours where they are well adapted to soil and climate, and surrounding conditions. Yet with all the competition from other good breeds, I am ready to predict that the Southdown of quality will continue to make friends, and in the future become more popular than ever as the profitable feeder's sheep.

**Feeding Dairy Cows for Profit.**

There is no more common error than that which is committed by so many of our farmers who feed their cows only a pittance above what they need for their maintenance, and fail to realize that their profits cannot begin until after this point is reached. The more the cow will assimilate after that required to maintain her body the better, as this may be used directly for the production of milk. We therefore see that with the right kind of cows, the more we feed, up to the limit of the capacity of each animal in the herd, the better returns may be obtained, relatively as well as absolutely, hence an expensive ration is by no means an unprofitable one. What has been here said applies with equal force to all farm animals. It is the excess above what is required for maintenance that yields returns to the feeder. When we remember that a cow, as a rule, is supporting a calf during the greater part of her period of lactation, and thus is asked to perform double work during all this time, the plea for liberal feeding will seem all the more reasonable. According to a German experiment, it takes 8.85 lbs. digestible matter for a day without a loss or gain in flesh. The same may also apply approximately to a dry cow of similar size. The same authority estimates that a cow in full flow of milk will need 15.4 lbs. of digestible matter daily in her food.

Hence we may consider nearly 60 per cent. of the food of a cow is needed to keep up her normal weight, therefore a cow producing a full flow of milk ought to receive over 40 per cent. more food than is required for her maintenance.

In connection with the dairy, early winter is the most important time of the year; many of the spring and summer calved cows are still giving a considerable flow of milk, and a few of those intended to keep up the winter supply are now coming in. Production should be sustained, and the weekly receipts, if not increased, must not be per-

mitted to suffer by the gradual falling out of the cows which had finished their season. There are many dairy farmers who have the bulk of their cows calving for winter, considering that it pays them better to have this arrangement.

*Food during Late Autumn and Winter.*—Before entering on a consideration of this part of the subject it may be well to notice, that although to make a winter dairy profitable it is absolutely necessary to use considerable quantities of foods containing a large amount of nutrition in a concentrated form, a good deal of caution is necessary that it is not overdone and expense incurred which the receipts cannot recoup. It should never be overlooked that home-grown food of all kinds is the cheapest, and should be availed of to its fullest extent; no better market can be had at present for wheat, oats and barley than to have them ground and used in winter dairying. The financial position of modern farming does not admit of heavy bills being paid out of the receipts, and the more a farmer can grow and find consumption for on his own premises, the more likely he is to hold his ground and make a profit.

Another point of importance in connection with winter calving cows is that to a certain extent the season is unnatural, and a full flow of milk can neither be induced nor sustained unless continuously well fed with food of nourishing and forcing quality, and the health and comfort of the animals strictly attended to. More particularly in the winter dairy, no animal will pay for the heavy expense incurred in feeding and attendance, unless free and fair in every respect, of robust constitution, a hearty feeder, and unmistakably a good milker. Even although every arrangement may have been made on the farm for breeding heifers in sufficient number to keep up the stock, a few young cows bought in occasionally are not at all objectionable, as they introduce fresh blood, and, if well chosen, may add considerably to the character and merits of the herd by their breeding, milking qualities, general stamina, and vigor of constitution. As a rule scarcely to be departed from, no cow should be kept in a strictly dairy herd until really old, as they are then large consumers, hard to keep in condition, and the loss in value when they come at last to be cleared out becomes a heavy tax on the year's receipts. When breeding is carried on, the outgoing cows should be parted with while still fresh and hardly off their best, heifers taking their place, the large sums the animals then make adding to the year's income, instead of lowering it, as must unavoidably be the case when kept till they are old.

**Meadowside Ayrshires.**

About four miles from Carleton Junction, on the C. P. R., and about the same distance from the town of Almonte, is Meadowside Farm, the property of Messrs. Joseph Yuill & Sons. The farm consists of about six hundred acres, four hundred acres of which are in one block. Here they have, with commendable enterprise, erected two large stock barns, and on the top of one there is a large windmill, which does all the ensilage and feed cutting and threshing, as well as the pumping of water for the stock. The past summer they have built what might almost be called a model farm house in every respect, and in doing this have not neglected one of the most important buildings on the farm, a good roomy woodshed, a part of which is divided off and fitted up as a dairy, where Mrs. Yuill makes her famous gilt-edged butter. As already intimated the chief business is the breeding of Ayrshire cattle, in which this firm has been very successful, as is shown by their success at the different exhibitions, and also by the fact that their reputation is such that they have sent stock to all parts of Canada.

The herd numbers about seventy-five head. They apparently give no preference to color, as we noticed both the light and dark shades were to be found in about equal numbers. The herd is headed by the bull McNeil 771; he is by Roger 3rd, and out of the noted cow, Viola 3rd, a cut of which appeared in our issue of November 1, which took first prize at Toronto, Montreal and Ottawa this year. At present they are milking about thirty-two head, all of which are registered Ayrshires. We might say that Messrs. Yuill have not had a grade cow on their farm for seventeen years. Among the heavy milkers of this herd are to be found Portulaca, winner of the Sweepstake milk test at Kingston in 1888, which, though she has been milking nine months and is eighteen years old, will yet fill a pail at a milking. Pride of Meadowside will give her own weight of milk in a shorter time than any other in the herd, viz.: twenty-two days. Another wonderfully deep milker is Almonte Maid. This cow, though ten years old, gave sixty pounds of milk a day on grass alone this summer.

Ella Meadowside, the mother of the first prize bull calf at the World's Fair, is a beautiful, light colored, three-year-old heifer, got by Baron Mansfield.

Mr. Yuill makes a practice of milking his cows at least ten months of the year, but if in good condition he will milk them right up to the time of calving.

This firm have some ten or a dozen heifers got by their bull, Jock, which are very promising, as well as a few young bulls, sired by Baron Meadowside, which are now fit for service.

In spite of having such a large number of cattle at the World's Fair, they made a good show at Ottawa, and were successful in winning six prizes.

In addition to Ayrshires, they keep one hundred sheep, one-half of which are pure-bred Shropshires, the others good grades of this breed. A herd of choice Berkshires is also kept.

They have a model dairy, fitted up with all the latest machinery, with the exception of a separator, and this they expect to put in shortly. The churning is done by means of a one-horse tread power. At present they use a jinnett, now forty-three years old, for this purpose, but they intend breaking in their bull to do this work and thus make him work for his keep. Just here we might add that while both political parties are quarrelling over which should have the honor of having originated the travelling dairies, it will be news to some to know that Mr. and Mrs. Yuill composed the first travelling dairy. Long before anyone thought of this method of diffusing dairy knowledge, Mr. A. A. Wright, who owned a general store in the town of Renfrew, finding that he was losing money, as so many of the country storekeepers do, in handling butter, decided to do something to improve the quality, and with this object in view engaged them to go round in this neighborhood and give lessons in buttermaking, and he states that he never did anything that paid him better.

Mrs. Yuill ships her butter twice a week to Ottawa, where it commands the highest price from private customers, who will not stop short of the best. She states that even in the hottest weather no ice is needed in the package, and accounts for this by the fact that the cream is never allowed to reach a temperature above fifty-nine degrees.

**Our Scottish Letter.**

The month of October is always more or less an uneventful one in Scotland, and 1893 has been no exception to the rule. In the beginning of the month the Quinquennial Show in connection with the Dumfries Union Society was held at Dumfries. There was a fairly good exhibit of horses, cattle and sheep, but a regard for strict accuracy would not permit of one saying that the show of the first named class was equal to that seen at Dumfries ten years, or even five years ago. Perhaps the most outstanding animal exhibited was Mr. Wm. Hood's Ethel, which gained the championship five years ago, and seemed not unlike being quite able to do the same thing now. She was got by McNair's Good Hope, and has worn remarkably well. In spite of her ten years, she is probably looking better now than ever she did. A gentleman who is not unknown in Canada took first prize with a three-year-old mare. This is Mr. W. J. B. Beattie, of Newbie, Annan. His mare is named Bonny Doon, and was bred in Cumberland. Galloways were forward in stronger force than they have been at any show during the present season. They were really a grand display, and, as is usually the case, the famous Tarbreoch herd secured the lion's share of the prizes. Mr. Pilkington, of Cavens, the Duke of Buccleuch, the Messrs. Biggar, and Sir Robert Jardine, Bart., all showed good stock, but not in anything like such numbers as Mr. Cunningham. Ayrshires were a really good show. Mr. Andrew Mitchell, of Barcheskie, Sir Mark J. Stewart, Mr. Robert Osborne, of Wynholme, Mr. Abram Kerr, and his brother, Mr. Thomas Kerr, were all successful exhibitors. In the sheep classes one or two breeders had it very much their own way. One of the best known flocks of Cheviots sheep in the country is that of Mr. Johnston, at Archbank, near Moffat. This flock is an old established one, and may be described generally as a blend of the East Country Cheviots with the Dumfries classes, the most distinguished breeder of which in bygone days was Mr. Brydon. It is admitted that Mr. Brydon's ideas, although dictated by a regard for the time in which he lived, were carried out by him to such an extreme as to greatly impair the usefulness and the popularity of Cheviots bred in Dumfriesshire. To Mr. Johnston, in a large measure, belongs the credit of having recovered much of the ground which was lost through the general adoption by farmers in that district of the Brydon type. The principal exhibitor of black-faced sheep was Mr. Jas. Moffat, Sanquhar. Border Leicesters in Dumfriesshire have to compete with the English breed known as the Wensleydales. These sheep in Scotland bear a somewhat curious name—they are called blue-headed Leicesters. They are stronger and coarser than the ordinary Border Leicesters, and have acquired popularity in the Border Counties chiefly from the wonderful maturity to which their cross lambs can be grown. On the whole, however, the fashion is rather drifting away from them, and the Border Leicesters are gradually but surely supplanting them in popularity. Dumfries is almost the only show in Scotland at which Wensleydales are exhibited in any number, and the show of this year has been no exception to the rule. The most successful exhibitor of Border Leicesters was Mr. Matthew Templeton, Drummor, Kirkcudbright. A gentleman not unknown to Clydesdale fanciers in Canada, Mr. J. P. Laurie, Shieldhill, was more than usually successful with the Wensleydales.

Mr. Laurie was the breeder of a grand horse which Mr. Gardner imported into Prince Edward Island a few years ago. He has also from time to time bred other horses not unknown to fame.

The second, and on the whole the most striking feature of the month has been the Shorthorn sales in the North. The name of Mr. Duthie, of Collynie, is now almost as well known as that of the Cruickshanks, and sometimes the Aberdeen Shorthorn is called the Duthie cow or bull and sometimes the Cruickshank or Sittyton. Another celebrated breeder in the North is Mr. W. S. Marr, of Upper Mill, and he and Mr. Duthie held a joint sale in the beginning of this month of their bull calves. There was not very much difference in the breeding of the two lots, but Mr. Duthie's were rather better brought out. He sold twenty-one bull calves at an average price of £50 15s. each. Mr. Marr sold twenty-two bull calves at £25 14s. 6d. each. The Earl of Roseberry was a first-rate buyer of Mr. Duthie's stock. He gave the highest price at the sale, viz., 155 guineas for the dark roan calf Dictator. A local buyer, Mr. Gray, Balgove, Old Meldrum, gave 48 guineas for the red calf Page of Honor—the highest priced one in the Upper Mill lot. The best general Shorthorn sale of the season was held at Stony-town on the following day. This farm is situated a few miles from Keith, on the Highland Railway. Mr. MacWilliam, the proprietor of the herd, finding that it had outgrown the accommodation at his disposal, resolved to sell it altogether rather than a draft. He sold fifty head of all ages, the average price of the lot being £37 0s. 5d. His seventeen cows drew £53 15s. 1d.; his two-year-old heifers, £33 3s. 6d.; his yearling heifers, £36 10s. 6d.; and his heifer calves, £31 0s. 4d. A yearling bull was sold for £39 5s., and eight bull calves, made £23 2s. These, of course, are the average prices. All through this was a most cheering sale, and everyone seemed to be delighted with his purchases. It was wholly of Aberdeen or Sittyton blood, and it is a remarkable tribute to the Cruickshank Shorthorns that they have sold best of all the types this season.

Our third section of events is connected with quite a different department of farming. The dairy farmers in the south-west hold high carnival at Kilmarnock in the third week of October. A cheese show held there is the great event of the dairy farmer's year. For several years past there has been keen rivalry between the Galloway and the Ayrshire cheesemakers. Formerly the Galloway men had it all their own way; then the Ayrshire men, with commendable enterprise, sent off to Canada and secured the services of a qualified instructor in cheesemaking. The results were soon seen, for Ayrshire gave Galloway a severe thrashing. The Kilmarnock Dairy School was started, Mr. Drummond, another Canadian, being appointed its head, and there can be no doubt that he has done more than any other man to improve the brand and raise the standard of the cheese made in Ayrshire. For several years the supremacy of the county which gave birth to the dairy breed of cattle was maintained; but the Galloway men were not to be done, and a year or two ago they formed an association of their own, securing as their itinerant instructor Mr. McFadyen, an Ayrshire man who was Mr. Drummond's assistant. This year the results have been seen in the extraordinary success of Mr. McFadyen's pupils, and the almost wholesale rout of the Ayrshire makers. The credit belongs not to Galloway at large, but to Kirkcudbright. The best makers have been the Messrs. Macadam, father and son, who hold comparatively small dairies in the neighborhood of Castle Douglas. This family has long been distinguished in the cheesemaking world, and old Mr. Macadam was one of the first to adopt the improved methods of cheesemaking introduced from Canada. We were at considerable pains to learn from cheese dealers their opinions as to the relative merits of Canadian and Scottish-made cheese. What they told us was, that the best Scottish cheese is far in advance of the best Canadian imported into this country, but the second brand of Scottish cheese cannot compete with the best Canadian. What the cause of this may be it is not for me to say at present. I am not sure but that the Canadian cheese suffers in transit across the ocean. One thing, however, you have every reason to be proud of is the fact that you were able to learn the Scottish farmers how to improve their cheese brand.

The hiring of Clydesdale horses for the season of 1891 continues apace, and altogether up to this time over twenty have had their stallions allotted to them. Terms, as a whole, are keeping well up, and whoever has cause to grumble, there is no reason for this being done on the part of Clydesdale breeders. At the Londonderry autumn sale, a week ago, eight Clydesdale brood mares made an average of £81 5s. 7d. each; six Clydesdale two-year-old fillies, £54 1s. 6d. each; and yearling fillies, £39 18s. Fools sold best, the fillies drawing £12 10s. 6d. each, and the colts £32 11s. The farming interests, as a whole, in this country are in a fairly good state at present. There is as usual a good deal of grumbling, but taking all in all, while undoubtedly many have lost heavily, the general outlook is rather better than it was a year ago. Breeders of all classes of stock have certainly little cause for complaint, but the prices that have been paid for stores, whether of cattle or sheep, cause one to fear that the feeders of these are leaving themselves a very small margin for profit.

SCOTLAND YET.

#### Why Every Farmer Should Subscribe to the "Farmer's Advocate."

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#### Ideas Culled from Sheep Breeders' Annual Report, 1893.

(Continued from page 457.)

When the fields are covered with snow, they should be well seen to and fed, so as to keep them in good health and vigor. For the first few months of winter, plenty of turnips cut or pulped, nice, well-cured pea straw, with a feed of clover hay now and again, will be found amply sufficient, with salt and pure water at all times within reach. Towards lambing time, a little grain should be added—oats fed whole are best—and the turnips should be reduced or the lambs may come weakly and some may be lost through this cause. We should watch the flock, and render any help if needed in lambing. And some of the lambs may require a little assistance to their first feed, especially if a young ewe is the mother; but the least one works with them, if not really needed, is better. The ewes as they lamb should be put in a pen by themselves, where they can be fed better; a little bran added to their oats will help the flow of milk greatly, and the lambs will run less risk of getting hurt. They should be turned out to grass as soon as possible after lambing, as nothing starts off the lambs so well, and it is important that there should be no stunting of their growth at this, or indeed at any time. The oats and bran should be fed until the grass is abundant.

Most of the writers have a word to say on the CARE OF LAMBS AT AND AFTER BIRTH.

"When early lambs are expected the pen should be made warmer than it is necessary to have it before this period, so that we may not lose an unnecessary number from chilling. Especially is this latter danger increased in the case of some of the favorite breeds whose lambs come so frequently weak. (The Downs may be favorably mentioned as producing strong, vigorous lambs even under adverse circumstances.) But we should be prepared, as even under the best of management lambs will occasionally come weak and limberlegged, to furnish help to such, as the loss of a few such lambs may turn a prospective profit into a decided loss. Never give up a lamb until it is dead. Hold the ewe firmly but gently, and support the weak lambs in their endeavors to procure their natural food for a few times. A teaspoonful or two of warm diluted whiskey will frequently reanimate an apparently helpless lamb. In such cases, and with those ewes which we often find refusing to own their progeny, we should isolate ewe and lamb for a few days and use every available effort to remedy matters. In case of a ewe losing her lamb it may be wise to take one of the twins from a less thrifty ewe, and by isolation and persevering care she may adopt it. But do not adopt the plan of separating ewes and overfeeding immediately after lambing, as we so often find the case.

They may now be fed on all the good clover hay they will eat up clean. The turnip ration may be considerably increased, and the grain ration may be doubled until the ewes go out to grass, when it may be stopped.

During the winter months the sheep should have a field in which to exercise, except in case of storms; this will do away to a considerable extent with the frequent complaint of weak lambs.

The lambs should be induced to eat as soon as possible. Clover, roots and oats should be placed

out of reach of the ewes, and from which the lambs will soon eat freely. This grain ration should be supplied to them all through the summer, and we will find no more profitable way of disposing of our grain than feeding it to the growing lambs.

During these months, unlike other stock, sheep require little care, except an occasional change of pasture, renewal of salt in the trough and of oats for the lambs, and care that they have access to water. It is wise also to take the precaution of seeing that they have shade during the extremely hot weather.

"At the age of three weeks the lambs should have their tails docked and be castrated. This is very important—important at all times, but more especially if the lambs are to be fed through the fall and winter months. There is nothing looks so untidy as a long-tailed lamb, and, if they are to be fed on rape, it is an absolute necessity to have them docked. And the same of castrating. It is nothing less than carelessness to let them run uncut, and the farmer who neglects this should be made feel it through his pocket."

"When the lambs are about a month old they should be induced to eat a little grain. A small enclosure should be penned off at one end of the sheep-house, leaving an opening through which the lambs could run in and out at will. In this pen a trough should be placed having a little bran or ground oats in, and the lambs will soon learn to nibble at it, and although they will not eat very much, they will pay their owner handsomely for what they do consume.

This is the time a shepherd should be very attentive, as each loss detracts from the aggregate profit. Get them out on a little pasture as early as possible, and continue to feed oats and bran and a little oil-cake, if you want to make good lambs.

Now, as washing time has come, I prefer to wash the ewes and lambs, as it cleans their skin from the dirt and dandruff accumulated through the long winter, although some farmers think it cruel. Take care not to clip them until the yolk or grease is well up in the wool again, which will depend upon the temperature. Three days after you clip the ewes the ticks will be all upon the lambs, which, if dipped, will completely destroy them if well done. There are many good preparations for dipping. Sometimes you will find a sheep very lame; examine the feet, and you will invariably find a wedge of dirt between the sections of the foot, or the hoof so overgrown as to cause the trouble.

Towards the end of August they should be weaned and put on nice second-crop clover.

In the treatment of lambs after weaning, Jas. Bowman says: "Let them on as good succulent pasture as possible, and also try and keep them at a good distance from the ewes, so they may not hear each other bleat, and give them a little grain once a day: oats, two parts; peas, one part, is a good mixture. They will keep growing straight along in this way, and about first of October should be turned into rape, with a good run on grass also, and grain still continued. They will only take very little, perhaps one-half pound per day, until cold weather comes on, when they will take more. We are strongly of the opinion that grain fed to lambs that are pasturing on rape and grass pays. In proof of this, last year one hundred and thirty-five lambs fed in this way, from twentieth of October until December second, gained twenty-two hundred and seventy-five pounds; they ate about \$35 worth of grain. And this year the best three ewes and best three wethers under one year at Provincial Fat Stock Show were taken out of a flock receiving this treatment on the twenty-fifth of November, and show was held on fourteenth and fifteenth of December. This year a flock of one hundred and sixty-two, from October fourteenth to January tenth, gained four thousand and twelve pounds. From about tenth of December they were fed mostly in pens, getting about three-fourths of a pound of grain per day, what turnips they would eat up clean, and hay; also pea straw to pick through. If prices are good when rape and outside feed is done, we would advise to sell them. But if prices are low and there is a good prospect of getting one-half cent per pound advance in price by holding them a month, if properly attended to in the way referred to above, they will pay. The pens need to be kept dry and plenty of fresh air allowed into them. Also salt to get to at will, both in fields and in pens.

Ewe lambs intended for breeding may run along with other lambs in rape."

#### SHEEP HUSBANDRY.

Henry Arkell, Teeswater, writes: "If the farmer would give even as much attention to his sheep as he does to the ordinary rotation of his field crops, and as carefully select his sires as he does his seed grain, I am safe in saying he would be able to keep four times as many sheep on his farm as he does now, with a corresponding profit, without diminishing the amount of other stock on the farm. For instance, when summer comes, instead of turning his sheep on the highways, as many do, or into the pasture fields and have his wife complaining that "those sheep are eating all the grass from the cows," I would suggest that he sow the land intended for turnips with fall rye, and by the middle of May he will have the very best feed ever found for ewes and lambs; and after his rye is finished, which should be before it comes out in head, or in time to put in his turnips, a patch of oats and tares should be ready, which may be grown on the summer-fallow, if he does summer-

fallow—if not, on land set apart for the purpose—followed again by tares sown at intervals of two weeks apart till his clover is fit for feeding to the lambs, which should be weaned by the first of August, when the ewes can run the stubble field. After the clover rape should be provided for the lambs, which should be finished by the middle of November, and the lambs be fed white turnips or swedes, as the case may be, with a little grain.

In feeding the above-mentioned crops I have no doubt the question will be asked, How will you do it? Answer—Use a portable fence, a portion of which is so constructed as to allow the lambs to have access to the portion of the field where the ewes are to be fed on the morrow, where they can be fed a little grain if desirable; this is optional.

Give your sheep each day what they will eat after the rye is finished, and as the weather gets hot provide a field where they can run, having access to water and shade through the heat of the day, say from ten o'clock in the morning till four o'clock in the afternoon, when they return to their allowance of tares, oats, etc. By this means your land is regularly manured instead of the fence corners or the highways, and your sheep will be healthier and grow more wool of a better quality, and your lambs will take well to their winter feed on coming into the yard, if you keep them for fattening. A very small quantity of land will, under this system, keep twenty or thirty ewes and lambs through the summer and not interfere with your other stock, besides leaving on the land the manure, worth at least ten cents per week per ewe and lamb. The food consumed will by this plan be grown on land that otherwise would have lain idle for a great portion of the summer.

HOW AGRICULTURE IS ADVANCED BY SHEEP.

Richard Gibson, Delaware, tells what sheep have done:—"In England many thousands of acres of wild and barren wastes, like Lincoln Heath, which formerly was a huge rabbit warren and a home for vermin—so desolate and solitary was it that a column was erected and lighted up at night to guide any belated traveller—this heath land was let for 2s. 6d. per acre, or a couple of rabbits a year.

Where the column stood at Dunstan Pillar is now one of the best cultivated and most noted farms in Britain; from under its shadow Royal winners innumerable have been bred and fed, and the name of Cartwright is known in every British colony.

Again on the Wolds, those high table-lands running east and west across the county of Lincoln, are farms which formerly rented for five shillings (English) an acre, and now for \$7 to \$10.

Then take the county of Norfolk, the eastern portion of which is probably the poorest, naturally, of any part of England, having been nothing but a pure white, blowaway sand, piled up in little mounds. Those who have travelled between Detroit and Chicago by the Michigan Central Railway will remember Michigan city, which nearly resembles that portion of Norfolk of which I am speaking. We now find there large farms well tilled, and as prosperous a class of farmers as any in Britain.

I need not go to the counties in the south of England to illustrate my point, but would merely remark that I know of farms of from 1,000 to 2,000 acres that have not over from five to ten acres of permanent pasture immediately surrounding the dwelling, and on which only sufficient cows are kept to supply the family with milk and butter.

The question naturally will be asked, How to farm 1,000 acres successfully without cattle? The practical answer, as exhibited on the sheep farms of Britain, would be, Grow green crops and feed them off with sheep.

Let us look at the means adopted, not to keep up a naturally fertile soil, but to reclaim and bring into cultivation the waste places of the earth; and a word here of encouragement may not be thrown away, if we inquire, in passing, Who accomplished this work, and to whom we are indebted for this object lesson? Was it some rich landed proprietor? Or perhaps a syndicate of wealthy capitalists? Or a well-endowed agricultural college? No; it was wrought out by the tenant farmer, who, having obtained leases and a liberal tenant right, was content to risk his capital in the venture; and when I say on these same farms are to be found the wealthiest farmers in England, that it is on these farms the English malting barley is grown in its greatest perfection, and that it can only be grown on sheep farms successfully has been so often demonstrated that anyone conversant with the question would not try to make one believe it can be grown elsewhere as successfully.

The means at first adopted were large applications of artificial manures, generally bone dust, then by encouraging the growth of clover and other green crops, followed by turnips, all eaten on the land by sheep, so that by constant treading the soil became consolidated sufficiently, and by the return of all green crops it became rich enough to grow grain. Though these soils are now rich in plant food, they could not be kept up without sheep, and to-day without them they must go out of cultivation.

The rotation was the ordinary four-course—quarter roots, quarter barley, quarter clover, quarter wheat—the roots and clover consumed by sheep. Can we not apply this lesson to advantage in some portions of our Dominion?

[TO BE CONTINUED.]

FARM.

Agents Wanted.

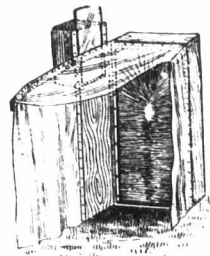
We want good, active agents to work for us in every county in Canada. To suitable persons we will give permanent employment and good salaries. We ask each of our readers to take an interest in the ADVOCATE; send us at least one new name, more if possible. If you cannot canvass for us, and know of a suitable person who can, send us that person's name and address. We are anxious to double the present circulation of the ADVOCATE. The more assistance you give us in the way of sending new subscribers, the better paper you will receive. Now is the time! Help us to make the ADVOCATE the best agricultural paper in America. We will do our utmost, but we want and must have your help.

The Guthrie Horn Fly Trap.

Insect foes have become the most formidable enemies that agriculturists have to contend with. Among the latest, and certainly not the least destructive of these, is the Horn Fly, which has worried cattle so terribly throughout the two past seasons. It is one of the worst insect pests that has turned up yet. It has been relentless in its attacks, never letting up day or night, following its victims into the stables, and allowing them no peace at pasture or in the stall. Already pages have been written upon their history and habits. Herdsmen have almost given up in despair, as these vicious pests have so materially diminished the milk yields of dairy cattle, and have prevented feeding cattle from putting on flesh, while they have affected the well-doing of herds generally. Fortunately for all concerned, inventive genius has been busy at work, and we believe has come to the rescue in the form of a trap that will do good execution in keeping these bloodthirsty foes at bay, and lessening their numbers most effectually. We have not had a chance of testing the trap in fly time, but can judge pretty closely after passing a cow through it that it will accomplish the work that is allotted to it.

Mr. R. H. Guthrie, Paris Station, Ont., is the fortunate inventor, and if ever an invention was put out in the nick of time it is his Horn Fly trap.

The accompanying cut gives but a faint idea how the machine effects its purpose. The dark shaded panel shows the passage way, armed with brushes through which the animal passes. Those who have witnessed a cow rush against a straw stack, or plunge through a thicket to rid herself of flies, can imagine the relief that animals experience by passing through this machine.



The trap is intended to be placed at a gate or stable door, where the cattle may pass singly through it. It is about six feet six inches high, and about forty inches wide, and is, therefore, of sufficient size for the largest animal to pass through. There are two side pieces, both of which fold up with a cover between them, which prevents the escape of the flies. The left hand one is supplied with curtains, which readily enclose the flies as they are brushed from the cattle.

The brushes for sweeping the flies off are formed of broom corn, and the passage way is so entirely closed with this material that it is well nigh impossible for a single fly to stick to its victim or follow the animal through the trap.

The folding doors, which require an attendant to work them, close readily behind the animal that has passed through the machine, and enclose the flies, which ascend into the trap proper provided for them at the top. This trap is in two compartments, the bottom one being left open while operating the machine, while the top one keeps the flies safe until the entire herd is passed through. It can then be removed and the captives destroyed. It required about twenty minutes to pass through a herd of twenty animals.

Mr. Guthrie has made an especial study of the Horn Fly and its habits while perfecting his machine, and has found:

First. That it is very difficult to drive the flies from one animal to another, even when they are standing side by side.

Second. That after having rid his cattle of flies by passing them through the trap, few come to his cattle from his neighbor's stock pasturing in an adjoining field.

Third. After his neighbor's cattle were removed from this field, his own cattle appeared to get a fresh stock of flies, proving that the flies do not seek fresh victims while the old ones are available.

Fourth. He does not believe the fly confines itself to the fresh droppings as a medium for hatching its eggs.

Fifth. That it follows its victims by scent, and will attack the horse when cattle are not near at hand.

We have received a number of testimonials from reliable men who have seen the machine operated, and all testify to the good work it performs. Further information may be obtained by addressing Mr. Guthrie, at Paris Station, who would gladly answer any enquiries.

Popular Geology—No. 2.

BY J. HOYES PANTON, M. A., F. G. S.

The composition of the most common minerals in rocks may be considered as follows:—

1. Quartz: This consists of silica; that is a substance containing Oxygen and Silicon, and occurs in a variety of forms, such as: Rock Crystal, Amethyst, Rose Quartz, Smoky Quartz, Chalcedony, Cornelian, Agate, Jasper, Bloodstone and Flint. Sand is largely made up of minute particles of Quartz.

2. Feldspar is one of the most important minerals, being composed of Silicate of Alumina (clay), and a Silicate of Potash, Soda or Lime, and thus supplies when decomposed very useful ingredients to the soil—clay on the one hand, and potash, soda or lime on the other. There are several varieties, viz.: Orthoclase, composed chiefly of clay and potash; Albite, clay and soda; Anorthite, clay and lime; and Labradorite, clay, soda and lime.

The first is most common, and occurs in many of our hard boulders in the field as a salmon-colored rock.

3. Mica consists of silica, alumina, potash, magnesia and some iron.

4. Hornblende supplies silica, alumina, magnesia and lime. Asbestos is a variety of this.

5. Pyroxene is much the same as Hornblende.

6. Talc is silica, magnesia and water. Soapstone, Steatite, French Chalk (used by tailors), and Meerschaum are varieties of Talc.

7. Serpentine is another mineral made up of silica, magnesia and water.

8. Chlorite contains silica, alumina, magnesia, iron and water.

9. Calcite, Chalk, Marble and Limestone have much the same composition, i. e., carbonic acid and lime.

10. Dolomite contains carbonic acid, magnesia and lime.

11. Gypsum is composed of sulphuric acid and lime. Selenite, a transparent variety, Fibrous and Satin Gypsum and Alabaster are other forms of the same.

12. Apatite supplies phosphoric acid and lime.

13. Rock Salt, and (14) Iron embrace most of the minerals connected with the formation of soil, which results from their decomposition. In this list we find nearly all the elements that enter into the composition of plants. How the rocks containing these substances are decomposed will receive future consideration. We shall now direct our attention to a further study of the great divisions of rocks.

Igneous rocks, sometimes spoken of as eruptive and unstratified, owe their appearance to the influence of heat.

Characters: Usually hard, and more or less crystalline, not in layers and without fossils (that is, the traces of animal or plant life).

Occurrence: 1. In irregular masses of all ages.

2. Beds over-flowing other deposits.

3. In the form of tortuous veins (granite).

4. Broad and simple veins known as dikes, which are sometimes over-topped with step-like masses described as trap.

Constituents: 1. Granite consists of quartz, mica, feldspar mingled together. Syenite is a variety with quartz, feldspar and hornblende, often occurring as dikes.

2. Serpentine.

3. Trap, containing much feldspar and some iron. It may present a rough form of crystallization known as basalt.

4. Trachyte, also rich in feldspar; it is more or less porous, rough and usually light gray—pumice is a variety.

5. Obsidian is glass-like lava.

6. Lava, the rock material poured out of volcanoes.

Localities: Lake Superior, Highlands of Scotland, Palisades of the Hudson, Fingal's Cave (Basalt), Montreal Mountain (Trap), and all deposits from volcanoes. The "Devil's Slide," at the entrance to Yellowstone Park, affords an excellent example of dikes. Here two walls 200 feet high, 50 feet thick, with a space of 150 feet between them, slope up the side of Mount Cinnabar 2,000 feet. Each of these walls is a very characteristic dike.

The study of Igneous rocks gives us a clue to the origin of the earth, and the condition of the earth's interior at the present time. One of the most favorably received theories regarding the earth's origin was originated by a scientist named La Place, and may be summed up as follows:

1. A period when the earth was a mass of incandescent vapor. 2. The earth a chaos of melted rock. 3. A thin crust forms, and many compounds in vapor before this, owing to the great heat of the glowing ball of fire, now descend. This would be a time of marvellous electrical phenomena. 4. The water now descends and is able to remain upon the gradually cooling surface, but there would be many upheavals and fissures made in the newly formed crust. 5. Continents begin to emerge and become a source of material for redistribution through the agency of water. 6. Final arrangement of the great land divisions of the globe. Each of these stages in the history of the earth would extend over a vast period of time.

That the earth has been, and is now, in a heated condition, can be shown by reference to the following facts:

1. The presence of boiling springs and geysers in various parts of the world: Iceland, New Zealand and the Rocky Mountains.

2. Volcanoes, of which 407 are known.
3. The temperature in deep mines increases 1° for every 60 feet of descent.
4. Water from deep Artesian Wells is warm.
5. Presence of Eruptive rocks far from present volcanoes, such as in some parts of Lake Superior district, Quebec, Wales, and among the Rocky Mountains.

#### Notes from England.

The Royal Commission is still the chief subject of discussion in agricultural circles. At the last session there was a good attendance of farmers, whose evidence went to show that there had been but little reduction made in the rents, and that the rural population was decreasing. As a remedy for this state of affairs there was an unanimous feeling in favor of the three "F's,"—Fixture of Tenure, Fair Rents, and Free Sale.

Even if this Commission is of no other use, it will serve a good purpose by causing farmers everywhere to meet together and discuss the situation, and in this way they can decide what is necessary to remedy the present depression, and by uniting they can bring pressure to bear upon the Government when petitioning for the abolition of their grievances.

To give your readers an idea of what these demands are, I have culled a few notes from speeches which have recently been delivered before farmers' meetings.

Prof. Long, in speaking before a meeting of delegates representing the Federation of Tenant Farmers of the North of England, which had been called together for the purpose of formulating and presenting to the Royal Commission evidence bearing upon the farming industry, said that he hoped that they would persist in bringing forward their demands until they succeeded in carrying their point in Parliament. As for himself, he had little confidence in the Commission, for he said it was not composed of the right men, as they were friends of the landlords, and for that reason he would not be disappointed if the results were meagre. In addition to the three "F's," he would like to see compulsory inspection of farms before the entrance of the tenant. If this were done the tenant would be able to show what was the condition of the farm when it was entered upon and the improvements that had been made. The tenant farmers numbered nine hundred per constituency, and it seemed to him that nine hundred resolute men could carry the day if they worked together in the right direction.

The Earl of Coventry is in favor of protection, and says: "Still I am somewhat sceptical as to the good results which would flow from the investigation. It will not be so easy to restore protection as it was to destroy it. And yet, if the question could only be fairly and dispassionately considered, we should find that a moderate duty upon the imports of wheat, based upon a sliding scale, need not have the effect of raising the price of bread. It is impossible for our farmers, handicapped as they are, to compete with the foreigner, who has the free run of our market, and does not contribute towards the taxation of our country."

The manifesto of the Lancashire Tenant Farmers' Association on the Agricultural Depression, after expressing want of confidence in the Commission, because there are no tenant farmers included, makes the followings demands: We still press for the abolition of the law of distress. The abolition of every law or custom which permits land to be left and protected from sale, and from being subdivided, that keeps it confined at all costs and hazards to one and the same family, when otherwise by the conduct of the owner it would be sold and divided, and become the property of the farmers. After enumerating the advantages to be derived from such action, the following remedy is proposed: "With a land purchase scheme similar to that in operation in Ireland, all this would be possible. This legislation is absolutely necessary to England's success in the race of international greatness; for the more we ascertain the agricultural conditions of foreign countries and of our colonies, the more are we convinced that access to the land and security here must be made equal to theirs. Then, and not till then, shall we be able to hold our own against them."

Mr. Pringle, in the course of an address on the Agricultural Depression, gave as his opinion that the prominent causes have been bad seasons, foreign competition and low prices, but that there were others below, the surface of which the question of compensation for unexhausted improvements was one of the most important. He said that the Agricultural Holdings Bill had done something in this direction, but upon the whole its operation had been disappointing in itself, although it had been the means of bringing different judicious parties together, resulting in reasonable and righteous arrangement between landlord and tenant. It was a disastrous system of farming for all concerned that for the last five years of a lease the farmer's interest was to reduce the value, and again it took the first five years of the new lease to

bring it back again into a fair state of cultivation. He was of opinion that the agricultural interests should be better represented in Parliament. It was of more value than any other two industries together. And there should be a cheapening of the transfer of land. He would abolish the law of entail, which was an obstacle to improvement, and would give more attention to the agricultural education of the holders of land. He felt assured that a more scientific cultivation of the soil would result in greatly increased production. Farmers asked for no legislative assistance, but they asked that all legislative obstacles be taken out of their way. An interesting discussion followed, in which the main proposal brought out was that the farmer should be assured of security for the investment of his capital; and if that were secured, more capital would be put into the cultivation of the soil, more workpeople employed, and a larger production of home produce.

In his evidence Dr. Farquharson recommended the extension of the Crofter Act to small farmers in crofting districts; abolition of the laws of entail; greater freedom of cropping, and more encouragement given to agricultural education. Asked about the change of tenants, Dr. Farquharson said that he and his people had always endeavored to keep on the old tenants, and he thought it was a principle which Aberdeenshire proprietors had always carried out. He thought they would make any sacrifice, pecuniary and otherwise, in order to keep the old tenants together.

Tuberculin is rapidly becoming recognized as a sure test for the presence of that dread disease tuberculosis. A further evidence of its effectiveness in locating the disease was recently shown on the estate owned by Lord Spencer. A few cases of tuberculosis having occurred, the herd were all tested with a view of discovering if the disease had made further progress among them. The result indicated that every animal, with one doubtful exception, was the subject of tuberculosis. To test the accuracy of this indication a yearling heifer and cow were killed and the *post mortem* revealed tuberculosis in each. Since then 20 other animals, being all the remaining members of the herd, have been killed, and in every instance deposits were discovered in some part of the body.

A very stringent Bill regulating the sale of foreign and colonial meat is now before the Imperial Parliament, the object of which is to prevent the sale of either foreign or colonial beef as the produce of Great Britain. In order to accomplish the above the dealer in foreign beef is compelled by the provisions of the Bill to post up in a conspicuous place the sign "Dealer in foreign and colonial meat," and it will not even then be lawful for him to handle such produce unless he is duly registered in the Government office. Any person offering foreign meat as British will render himself liable to a heavy fine.

#### Tariff Reform.

In your issue of the 5th November, under the name of "Tariff Reform Criticism," you published a letter from Mr. Wagner, Ossowo, Man., in which he says "that the FARMER'S ADVOCATE has taken up politics, and that the founder of the F. A. would never have done so." If to advocate the interests of the farmers and try to remove the burdens, politically, under which they have so long suffered, and under which they are rapidly going to ruin, is an error in some minds, you may rest assured that it is but a few, a very few, who think so. I understand that the FARMER'S ADVOCATE professes to be the friend of the farmers, and while endeavoring to impart information and instruction upon such matters as are practical to their employment, it is equally a part of its duty to advocate, without reference to party politics, the removal of burdens which press heavily upon them financially, and doing so, seriously impair their ability to carry on their business successfully. Tariff Reform is now too live an issue to be ignored by any journal, and the farmers, especially the intelligent farmers, are almost unanimous in its favor, without regard to political parties.

Many people are under a misapprehension of what politics are, and confound them with something else. The science of politics is the art of conducting the affairs of a nation prudently and wisely, and it is not only the interest of every citizen of the nation to understand the principles of this science, but it is his duty to his country, to himself and to his family to do so. There is a great gulf separating the politician, in the true sense of the word, from the party-heeler or partisan, who, from prejudice, ignorance or self-interest, not to mention other motives, attaches himself to either party, and is ready to support any measures, be they right or wrong for national interests. It would be well for Canada if there were fewer party-heelers, usually called partisans to save their feelings, and more independent, thinking politicians. The Patrons of Industry are doing noble work in this line, and, while recognizing politics as the science of government, are teaching the farmers that the in-

terests of the country should be before and paramount to party politics. Political economy is in no sense a doubtful science. Its principles are as clear and established as those of any other, and founded on facts. When those principles are departed from for some nostrums of political quacks, to catch the unwary and ignorant, evil is sure to follow the majority. A few may benefit, but the many suffer. In regard to taxation, Adam Smith lays down as one of his great principles "that the subjects of every state ought to contribute towards the support of the government as nearly as possible in proportion to their respective abilities: that is, in proportion to the revenue which they respectively enjoy under the protection of the state. Now, all taxes must fall ultimately on the produce of the land and on labor, because those are the basis and source of all wealth. The farmers only demand equal rights, that is, they desire to contribute of their substance to the support of the national government in proportion to their revenues under the protection of the state. If they, and other consumers, are compelled by law to support a protected and favored class, why should the government not bonus their industry, and require others to contribute to their support? Protective duties operate as bonuses to those industries where imports are excluded and competition prevented. The agricultural industries depend on foreign markets, as the production always exceeds the domestic demand, and import duties cannot possibly benefit those whose produce is exported. The bonusing, therefore, must be done, as in the case of the iron industry, by the government granting a fixed per centage on all produce raised by the farmers, say 35 per cent., as an equivalent for the duties on implements, twine, etc., which fall so heavily on them. The N. P. was devised to attract working men, to increase population, to erect tall chimneys and create home markets, in all of which it has ignominiously failed. It would, no doubt, require a considerable sum to bonus the farming industry, but probably not larger than the country's contributions to protected industries. Let us look, however, at the advantages which would follow. There are over 726,000 persons directly engaged in agricultural pursuits, and taking an average of five for each family, gives 3,630,000 dependent on them. A government bonus of 35 per cent. to the farmers on all export grain and cattle would result in a vast increase in employment for laboring men—probably not fewer than 500,000 would be added to the number of farm hands. Settlers would be attracted to our great North-west, and in ten years there would not be a vacant homestead. Mortgages would disappear, and the increase in available capital would be spent on new implements, machinery, stock and more comfortable and wholesome buildings. Villages and towns would spring up, and even the historic tall chimneys might be seen lending enchantment to the view. The farmers would no longer be taunted as ignorant hayseeds, working only with their physical and not with their mental powers, but would be educated men, and able not only to read and study the primary principles of agriculture, but a higher class literature. Grinding poverty and incessant toil are great cultivators of ignorance. What is sauce for the manufacturing goose should be sauce for the farming gander. A short time ago there was an effort to get Great Britain to tax her people in favor of colonial shipments. Why not do so for ourselves and at our own cost, instead of asking the workingmen and consumers of Britain to grant discrimination in our favor to their detriment? Equal Rights for the agricultural industry! Yes! why not? Why should the poor farmers be ground down for the benefit of other industries?

I trust I am in good Conservative company when I quote Mr. Dalton McCarthy and Col. O'Brien, who both have taken a noble stand against political corruption and for Tariff Reform, although not far enough. But a revenue tariff with incidental protection and looking ultimately to British free trade is a great advance upon ultra protection. The manufacturers and combines should, however, be compelled to pay towards the national revenue a percentage on all their out turn to compensate for the protective duties. In a country like Canada, where the overwhelming interests are in our purely native industries, such as agriculture, fishing, lumbering and mining, and where a small percentage of the population only is engaged directly in exotic industries, British free trade alone can do justice to all classes. A revenue as large as now, but probably not required as large under free trade, can be more economically collected and more easily obtained by duties only on articles of luxuries, a head tax of \$1 to \$2 on all adults, and an income tax on all incomes of \$1,250 annually, payable half yearly, allowing a deduction therefrom of a sum which may be assumed to cover the cost of all the necessities of living for a family—probably as in Britain, \$750.

By all means, then, let the FARMER'S ADVOCATE deal with politics as a science, and exclude partisanship. Let us have educated and intelligent citizens, versed in politics, and cast ignorant, prejudiced and vicious party-heelers aside, for it is only they who rejoice in the present party struggles for place and power, caring nothing for the country's welfare. All honor to Mr. Dalton McCarthy and other noble men who place the country's interests, honor and honesty before party, place and power.

Yours truly,  
Reaburn, Man.

ROBERT WEMYSS.



**Irrigation in the Territories.**

BY A FARMER'S DAUGHTER.

Alberta has this year had her share of a truly abundant harvest. Not only has it been abundant in the region lying between Olds and the Saskatchewan, where, with invariably an ample rainfall, agriculture is a fairly safe pursuit; but what are termed the arid districts of Southern Alberta have also had a fair show of prosperity. With this abundance the question of artificially supplying moisture to the ground, by means of irrigation, seems not to press itself for settlement with so much urgency. But this is not really the case.

The returns this year from districts with a moderate rainfall, where losses by drought come almost as regularly as the seasons, and where nothing is so certain about the fate of the crops as uncertainty, but emphasizes the fact that it is only water regularly, judiciously and amply applied that is needed to make what is erroneously supposed to be the barren parts of Southern Alberta and Western Assiniboia bring forth and yield their harvests with an abundance and regularity second to none. Without water these districts are only fit for what they now are, a great, free cattle range, as the usual rainfall is insufficient to support agriculture, except in a few localities, where, with as favorable a season as the past, fairly good crops may be expected. What is wanted in these districts is irrigation, and the people of Calgary and Southern Alberta are now thoroughly roused to the fact that with the adoption of this system the success of their future is beyond computation. A few isolated experiments have been made in these districts in the last year or two, and these have served to demonstrate to the many the future success of the undertaking. A few companies have also been chartered to build necessary works, but they cannot anything like grapple with the need of the country. What is needed is legislation, and that at once, on a subject fraught with such importance. In a new and sparsely settled country, such as Alberta is, the necessary works cannot be established without aid from the Government, and it remains for the people of Alberta and Assiniboia to put forward their claims respectfully, but firmly, to the Dominion Parliament for a reasonable appropriation for the construction of suitable works. The necessary water is here in abundance from innumerable and never-failing mountain streams, and is only wanting man's ingenuity to put it to practical use. "Will it pay?" is the first question naturally asked by the practical man. When was irrigation ever known not to pay? The fact that what were twenty years ago the barren sand-plains and sage-bush deserts of the Arid South are to-day smiling under fertile orchards and green meadows should answer that question.

Take the now famous orange districts of Southern California as an example. The best type is perhaps found in Riverside, with its beautiful homes, its gardens, orchards and boulevards, surpassed nowhere in the world. Twenty years ago it was a poor sheep pasture, dear at one dollar twenty-five an acre. To-day the land is worth three thousand dollars an acre when the orchards are in full bearing, and this is only one instance in the many. Alberta has all the elements to make it a grand country. It is the land of sunshine, of dry, pure air, of long, fruitful summers, of short, genial winters. Whatever may be done in Eastern Canada could be excelled here if the fertilizing influence of water was brought to bear on the rich soil. It is the natural home of the stockman, dairyman and farmer. With irrigation these and kindred industries would receive such an impetus that Alberta, before long, would be recognized as one of the prolific spots of the earth.

Agriculture by means of irrigation is very different to farming as it is generally understood. First of all, the crops are insured against any possible failure by drought. Second, having water whenever it is needed, and in as large quantities as required, the crops must be of the best quality and largest quantity per acre. Third, having land producing crops without danger of failure, of the best quality and greatest quantity, it goes without saying that it must rise to very high value. The most valuable agricultural land in the world to-day is the irrigated lands in the Southern and Western States, and land which to-day, in Alberta, could not be given away, in a few years, with irrigation, is bound to be among the most valuable in the Dominion. Again, irrigation always means a dense population. The irrigated land is pre-eminently the land of the small farmer, and it is on these that the country's condition of prosperity is largely dependent. Then, within the next two years hundreds of thousands of acres of land, that is now leased property for the cattle range of the country, is to be thrown open for settlement, besides the thousands already offered, and it surely behooves the Government to make some provision for the needs of the country before bringing people here to occupy it. Bringing water to arid lands means bringing wealth to the country, adding to the prosperity of the country, ensuring the yield of crops and rendering the settlers independent of the drawbacks of the climate.

Government aid has invariably been forthcoming

when it has been found actually necessary in order to promote the prosperity of the country and add to the general commerce and wealth of it to call for such aid. Then why should the line be drawn at irrigation, so deeply necessary to the prosperity of Southern Alberta and Western Assiniboia? The people know their needs, and let them see to it that this question is placed before Parliament in a proper and forcible way. Let them press the question so respectfully, yet firmly, that the Dominion Government cannot close their eyes to their needs and necessities.

**Business Farming Versus "Farming."**

By the first I mean farming carried on by the same business principles as a mercantile business. In this the merchant gives a certain amount for a thing that he may get more for it. It is this more that is everlastingly in his eye and moves him in all transactions. In "Farming" the work is directed by custom or notion, and in the hope that "by the aid of Providence"—or "spells of public work"—"people may pull through some way."

What should we think of a merchant who would go to a wholesale house, buy goods, and then proceed to sell them without prices, but trusting that the guidance of custom and the goodness of his customers would give him costs and profit? Much like this is the case of the farmer who forks over to what stock he happens to have the hay he gave his hard work for—the equivalent of hard cash—and often the cash itself—without any calculation of what he is to get for it, but trusting to custom "to get through some way." The record of the feeding, etc., of a prize steer at the Chicago Fat Stock Show tells that every lb. put on him the first year cost only 3.21 cts. per lb., while all put on him the third year cost 11.82 cts. per lb. At the end of the first year he would have sold at a profit of \$44.28; at the end of the third year he sold at a loss of \$39.36. Many farmers with plenty of feed and guided by notion only would be in favor of keeping the said steer till three years old.

Lately, a neighbor one evening while looking at a small cow I had bought for \$20.00 remarked that he thought I had made a poor bargain, as she was so small. A big cow of his stood near and I asked him if he would exchange with me. "Tut!" said he, "I would not give mine for two of them." These cows had calved about the same time and grazed upon the same pasture. It was milking time and I suggested a somewhat definite comparison of their works before disputing further about them. We got a spring balance and weighed the milk. His big cow gave 1 lb. more than mine—not much "to brag on." We then sampled both milks and went to my Babcock Tester. The milk of my despised little cow showed 5.2 per cent. of butter fat; that from his "fine big cow" 3.2 per cent. Nor is this all. His big cow probably takes a third or half again as much food as mine. Taking both into consideration, it is safe to assume that my little cow gives twice as much butter for the same food as his cow. The revelation made by that test is the death warrant of the big cow. She shall die this fall. I got and keep the said little cow, because for every dollar's worth of feed she takes from me she gives me more than a dollar's worth of milk. And in spite of the fact that a decidedly unlovely poor old maid raised her, I like this little "hard-looking" cow, for she gives me daily that more which helps me to feed, clothe and educate the children whom I love. My neighbor kept and liked his cow (before that test) because he raised her himself, and she is a fine big cow.

So much for business farming versus notion farming till the next rainy day. J. D. M.

**Lime and Nitrogen.**

In a translation from the German, which appeared recently, it was stated that lime was an accumulator of nitrogen. This is true in part only; it certainly increases the stock of available nitrogen in the soils, for when caustic lime is applied to land, it at once decomposes all organic matter in it containing nitrogen, as grass, manure, muck, etc., and liberates nitrogen as ammonia. Though the soil retains with tight grasp a small quantity of ammonia, still, if the amount liberated is large, a corresponding amount will be lost, so the folly of applying lime in large applications is seen. No more should be applied than will liberate sufficient ammonia to be taken up by the growing crop. The immediate effect from an application of lime on land which contains a considerable amount of organic matter is to greatly increase the crop; but, if no plant food is added, after a few years have elapsed the soil will be left poorer than before. This will be readily understood when we consider that lime is not really a plant food, but more of the nature of a stimulant, and if large crops are taken off and nothing added, the land is sure to become exhausted. These facts have given rise to the common idea that large applications of lime impoverish the soil. More lime than is necessary for the use of plants is found in all ordinary soils. Lime also tends to the unlocking of inorganic food supplies, and this is especially true of potash and soda. It also has a good effect upon soils which are known as sour, as it will, to a certain extent, neutralize the acid in the soil. Other advantages gained by an application of lime will be the rendering of stiff soils more pliable, and destroying various forms of insect life and fungus growths.

**DAIRY.**

**Skimming Milk.**

The following letter has been received, which speaks for itself, and an opinion asked concerning it:—

Odessa, Nov. 3rd, 1893.

Editor of FARMER'S ADVOCATE:

Will you kindly answer, through your paper, what you think of taking three pounds of butter from one hundred pounds of milk and then making cheese of the balance?

SUBSCRIBER.

If "Subscriber" means that a farmer or dairyman makes three pounds of butter from one hundred pounds of milk produced on his farm, and makes the balance into cheese and sells it as skim-milk cheese, we have only to say that he is doing a perfectly legitimate business, and as long as he does not deceive people as to the quality of his goods he has a perfect right to do as he pleases with his own product.

But if "Subscriber" means that a patron of a cheese factory, or one who "pools" his milk with his neighbors, deliberately makes three pounds of butter from one hundred pounds of milk and then sends the balance to the cheese-factory to be made up into cheese along with his neighbors' good milk, then we have a very different opinion to give.

We have the same opinion of a man who sends skimmed or watered milk to a cheese-factory as of the common thief or burglar who breaks into a man's house and carries off his property. In some instances we have a higher opinion of the common thief, as he does not lay claim to any great degree of honesty, while the man who "pools" skimmed and watered milk with his neighbors' whole milk endeavors to maintain an attitude of honesty and straightforwardness in the community while carrying on his underhand robbery. It does indeed seem to be a mean, despicable piece of business for a person who has the respect and good-will of his neighbors, and maintains the outward appearance of honesty towards them, to take advantage of his good reputation among them to systematically take what does not belong to him by supplying milk to a cheese-factory from which butter has been made or water added. The man who makes three pounds of butter out of every one hundred pounds of milk and sends the balance to the cheese-factory is just taking that much from his neighbors. If butter is worth twenty-five cents per pound, he is getting seventy-five cents a hundred out of his milk, the larger portion of which belongs justly to his neighbors with whom he is "pooling" milk at the cheese-factory.

It is difficult sometimes for the human mind to conceive of what "meanness" a man is capable of doing when he has the opportunity or the temptation is thrown in his way. The case noted by "Subscriber" is almost without parallel among the many cases of tampering with milk supplied to our cheese-factories. In the milk received at our cheese-factories after 3 lbs. of butter have been made out of 100 lbs. of milk, there is not much butter fat left, and the balance of the milk would only be fit to make an inferior kind of skim-milk cheese. There is a case reported from one of the factories in Western Ontario where a patron pleaded guilty to adding 60 per cent. of water to the milk before he sent it to the factory. But such instances are unusual, and, as a rule, persons tampering with milk don't go so far, but content themselves by adding from 25 to 30 per cent. of water, or by taking off about 10 per cent. of the cream. Doubtless a great many of them think that the guilt is not so great when only a small fraud is committed, but the act of dishonesty is just as flagrant.

So many reports have appeared in the public press during the past season of patrons fined for tampering with milk, that it may appear to many that such dishonest practices are on the increase, and that the law, instead of stopping, is unable to mete out the punishment which such offences deserve and offenders are not afraid of it. Such is not the case. The law is more workable than it ever was, the instruments for testing milk are more accurate, inspectors have a better knowledge of how to detect adulterated milk, and consequently more offenders are brought to justice, and thus it may appear that such practices are on the increase. There was a great deal more tampering with milk supplied to cheese-factories 10 years ago than at the present time. But at that time the tests were not as reliable, the law had too many loop-holes by which the guilty party could escape, inspectors and cheese-makers were not as well posted, and therefore not so many offenders were brought to justice. Thus it was that a much smaller proportion of offenders was found guilty, which gave the impression that skimming or watering milk was not carried on to any great extent at that time.

With the Babcock Milk Tester and the Lactometer, an inspector who understands his business thoroughly and does his duty has not much difficulty in locating the patrons who are given to tampering with milk. We have had no definite reports from inspectors in the Eastern portion of the Province of Ontario this season, but there is a striking example of what can be done in this line in the report of Mr. T. B. Millar, Inspector for the

Dairymen's Association of Western Ontario. He laid charges against 35 patrons for tampering with milk during the past season. Thirty-three of these pleaded guilty, and the remaining two were proven guilty at a regular trial before a Justice of the Peace. A word may not be amiss just here in reference to the amounts of the fines imposed. They have been altogether too small and not at all in keeping with the enormity of the crime. The law reads that anyone found guilty of tampering with milk supplied to a cheese-factory is liable to a fine of not less than five dollars or more than fifty for the first offence. Of the thirty-five convictions by Inspector Millar, the highest fine imposed was fifteen dollars and costs, while the much larger number of them were only fined five dollars and costs. To a man who adds from 30 to 60 per cent. of water to milk or takes away 20 or 30 per cent. of the butterfat, a \$5 or \$10 fine is not of much consequence, and he can in a very few days, if he has a fairly large supply of milk, get back the amount by carrying on his systematic stealing. No doubt many of our local magistrates do not like to be hard on their neighbors, and desire to retain their good-will by being as lenient as possible. This may be the right kind of an attitude to maintain towards them, but when these neighbors abuse their right to the good-will and sympathy of those around them by committing the meanest kind of theft, the magistrate is negligent to his duty as a dispenser of justice if he allows a patron who pleads guilty to deliberately skimming or watering milk to escape without meeting out punishment on a parity with the kind of offence. As long as parties given to tampering with milk feel that whenever caught in the act they can go before a Justice of the Peace, acknowledge their guilt, and get off with a fine of \$5 or \$10, they are going to keep on so long as they are making anything out of it. If instead of a \$5 or \$10 fine being imposed, it were made not less than twenty-five dollars and in some cases, the full extent of the law, "milk offenders" would consider awhile before running the risk of making themselves liable for such an amount. Besides, if a few parties were so punished it would be a warning to others who were inclined to do likewise. It is hoped that local magistrates will look up this matter in its true light, and will do all that is in their power to put a stop to skimming and watering milk supplied to our cheese-factories.

A very effective means of putting a stop to tampering with milk is to pay for it at our factories according to quality or by the percentage of butterfat. This system has been adopted by a number of large factories during the past season, and has given pretty general satisfaction. If every cheese-factory would adopt this system and pay a man for the quality of milk he sends as well as the quantity, there would be no temptation to water or skim his milk, for the patron would not get pay for the water he added, nor as much for the skim-milk he supplied. As far as we can learn, the factories who paid by this method during the past season are pretty well satisfied with the results. Of course there are patrons here and there who are dissatisfied with the system and are anxious to go back to the "pooling" or old method. But these grumblers invariably are those whose milk does not test as high as their neighbors, and consequently they naturally prefer the old method, as their inferior milk will be increased in value by being mixed with their neighbors' good milk. There have been some great revelations at these factories during the past season. Patrons who were very strongly in favor of the new system last winter are not quite so eager when they find out that their milk does not contain the amount of fat they expected, while others who were strongly opposed to the system before it came in force are now in favor of it, just because their milk is showing up much better than they expected. It is expected that the man who has inferior milk will oppose the system as long as he can, but this does not lessen the fact that the method is a just one, and one which will give every patron of a cheese-factory exactly what is due him and what his milk is worth. It also has the effect of making the patron take better care of his milk, as he feels if he does not stir and air his milk properly he will not get as good a test; and consequently, if it enables the cheesemaker to get better milk, he will be able to make better cheese, and thus the quality of our cheese will be improved and the business placed on a sounder basis than heretofore.

#### Home Dairying at the Ontario Agricultural College.

Editor of the FARMER'S ADVOCATE:

SIR,—Having received a number of inquiries about our course in dairying, I shall esteem it a favor, if you will allow me, to say through the medium of your paper a few words which may serve as an answer to many questions.

Our regular students receive lectures on dairying, and get more or less practical instruction in that department throughout their whole course; and the training given in this way is thought to be sufficient for those who remain with us for two or three years.

For buttermakers, cheesemakers, and others who can spare only a short time, we have a special dairy course. The course in this school lasts for two months, commencing on the 15th January, and is devoted entirely to the theory and practice

of dairying in its different branches, viz., milk-testing, buttermaking and cheesemaking. Last year we admitted sixty applicants for this course, and refused over eighty. This year we are erecting a new dairy building for the accommodation of a larger number, say one hundred students, and already, without any advertising, the pressure has been so great that we have admitted one hundred and sixteen for January, 1894, and have placed on file between twenty and thirty applications for 1895.

Another class has still to be provided for, viz., young men and women, and perhaps some older persons, who do not wish to take a full course so as to fit themselves for factory work, but want to learn something about the latest and best methods in home or farm dairying. For this course we are now providing. Henceforth, our new dairy building and one-half of the old building will be devoted to systematic instruction in milk-testing, buttermaking and cheesemaking on a large scale, for those who wish to equip themselves fully for taking charge of creameries or cheese factories; and the other half of the old building will be used for milk-testing and buttermaking on a smaller scale, and in a way adapted to home or farm dairying. This home dairy department is intended especially for farmers' sons and daughters, who may desire to learn something about the appliances suitable for dairying on the farm, the care of milk and cream, the best methods of churning, the salting, working, printing and packing of butter, the use of the Babcock milk-tester, and the running of cream separators by hand, by tread power and by steam.

Under the direction of Prof. Dean, Mr. T. C. Rogers, our own buttermaker, will take charge of this home dairy department, and those who wish instruction in this department may enter at any time within the two and a-half months, commencing on 15th January, and may stay as long or as short a time as they wish. I may add that we had five ladies in our dairy school last year. They liked the work very much, and took a high standing at the end of the term. We hope to have a number of farmers' daughters apply for this home dairy course to commence on the 15th January next, and would suggest that applicants state when they wish to enter, and how long they propose to stay.

Yours, &c., JAMES MILLS.

Ontario Agricultural College, Guelph,  
Nov. 15th, 1893.

#### Factors Necessary to the Advancement of the Dairy Industry.

BY S. P. BROWN.

The first great step in the advancement of this great industry has been taken in the form of the Travelling Dairy. It has done, and is doing still, a good work, and will continue to have its good influence until the people of this country have become educated to a degree that surpasses its utility, and at that time the Travelling Dairy may be laid aside in the historical museum, as a relic of the past.

This step taken, the next seems to me to be in the direction of more thorough manufacturing organization, which would uniform the quality of the good product, and reduce rapidly the poor, bad, and even worse than either of these.

The cheese industry has made rapid strides, and gained a name not to be ashamed of; this has been done mainly by centralizing the efforts of manufacture and sale.

When the manufacturing of butter becomes centralized in the same way, and managed with as much perseverance, zeal and thrift as has characterized the cheese industry, bad and rancid butter will be a thing of the past.

I take the aspect of the butter industry because I am better acquainted with it, and because of the more need of such agitation.

The next great necessity I see, if we are to be successful producers of butter at a fair margin of profit, is better breeding and general management of our dairy stock. We must cease to follow the general purpose plan of breeding, and for our mark put up a prime object, and work all auxiliaries and laterals as such—not hold them all in our hands and fail to make a thrifty success of any. The first thing, then, is for us to have decision of purpose, weigh well the merits of all lines, choose carefully our course, and then drive each nail and pin in our framework home with a firm and steady hand. We will meet obstacles and discouragements many times, and in many different forms, but the steady plodder "gets there" in the end.

If we take, for instance, the production of butter, select as good cows as can be procured under our varied circumstances, breed them to a good male of some notably good butter breed of cattle—I care not what you choose, so long as it is to the point and purpose of producing the most for the least cost. In the beginning it may seem a sort of retragrating to the eye that has been accustomed to the fine, symmetrical, well-rounded steer that the male calves of the beefing types make. But whether it is better to be losing every year the difference between the butter product of an inferior or fair milking general purpose cow and an improving or fully developed special purpose cow, or lose the male calves at once for a few years till we have a well developed herd?

A pound of butter is worth three prices of the best beef; it does not cost three times the labor,

and the cost of the feed is computed to be the same in either case. Moreover, when we are selling our labor at a good price we are getting a profit.

When we have attained the points of excellence in our herd so much desired, which of necessity takes much care and good management in all ways, yet for the butter product, and to attain the most rapid and best advance in its reputation, there is another care which we must ever keep in sight, viz.: We must guard well our market, and produce just what it asks for—feed that which will give the butter the selling qualities. The place to make the best butter is in the cow stable; if not good there it cannot be made good after, but good may be made bad after.

One of the most prevalent causes of low prices for butter at this time of the year is the turnip flavor. People think they can't get along without feeding turnips, and yet they wonder why butter is so low—they are simply taking their money out of one pocket and putting it into the other. If turnips were not raised for the next five years for feeding cows giving milk, nor fed to them, and butter made on the factory system, I believe the demand would be twenty per cent. greater, and hence the price better.

The outlook for the future of this industry, I think, promises well, as soon as we centralize our manufacturing and raise the standard of our dairy stock to an increased production at no more cost, for as we improve the quality the demand will increase. Where three pounds of poor butter will answer, it will take at least four of good creamery to fill the want. I know this from our own customers since they began. It is an industry not likely to be overdone for the next century, but may be done over—remodeled—many times.

#### QUESTIONS AND ANSWERS.

##### Veterinary.

ANSWERED BY DR. MOLE, 260 ADELAIDE ST. WEST, TORONTO.

##### CONGENITAL BRONCHOCELE.

W. MOLE:—"I have a colt which was born with a lump in his throat, which varies in size, sometimes getting as large as a hen's egg. The throat seems to be puffy, and the lump can be felt yet; but does not show from outside like it did. I would be much obliged if you would prescribe for him through your valuable paper."

Tumors of the neck in horses are not of a very common occurrence, and operations for their removal are not to be recommended. They are generally connected with the Thyroid glands, and more commonly known as Derbyshire Neck. Excepting in cases where the tumor attains a large size, and does not cause any more inconvenience than you detail, we would certainly advise no interference. An application of tincture iodine twice a week can do no harm.

##### Legal.

ADAM YOUNG:—"A contractor made a verbal bargain with me early in September last to build for me a small stone house, the work was to be pushed through rapidly, and a number of men put to work at it at once. The work has not been pushed ahead as agreed, and it is impossible to have a satisfactory job made now on account of the weather. The contractor was to have his money as soon as the work was done. What are my rights?"

If the contractor agreed to make you a good job, and finish it as quickly as reasonably possible, as would appear to be the case, then if he has failed to do so, either as to time or the quality of the work, you are entitled to set off your loss against the contractor's claim, and your loss would include reasonable damages sustained for the time you are kept from the benefit or use of the house, and also for all the expense you may be put to in order to make the work as good as the contractor should have made it according to his agreement with you. You are not bound to accept the work if not properly done, and if the contractor fails to make the work right, you may have it made right, and deduct the cost from the contractor, no matter if the cost amounts to as much as the original contract price. If the contractor, however, can and does complete his work according to his agreement with you during the present season, then he could compel you to pay the contract price, less, of course, any damage you have sustained for the time you have been improperly kept from the use of the completed building. You must be careful and satisfy yourself that you are right about the fact as to whether the work is done according to the contract, both as to time and quality of work done.

B. R. BLEAKNEY:—"The line fence between my farm and an adjoining farm is not on the true line. How am I to have it put right? I had the true line run by a surveyor."

Assuming your remedy is not gone by reason of being barred by the statute of limitations of actions in your province, which we cannot tell as you do not say how long the fence has been where it now stands, if after having the true line run by a surveyor you and your neighbor cannot agree to place the fence on the proper line, then legal proceedings will be necessary. You should see a lawyer.

## POULTRY.

## Poultry on the Farm.

BY MRS. IDA E. TILSON, WEST SALEM, WIS.

Scientists have said milk and eggs are the only articles of food containing each in itself all the elements of the human body. Farmers think they appreciate fresh eggs, but their visitors from the city often prove more enthusiastic. When far South, where ice and facilities for keeping fresh meat were lacking, I found poultry and eggs especially esteemed. In certain sections, among poor people, eggs sometimes took the place of pennies and nickels. It is reported a colored boy walked forty miles to the Normal School at Tuskegee, Alabama, and entering the principal's office, held up three little chickens, saying, "Please, sir, is dese enough to begin de college on?" "Two miles from a fresh egg" expressed the greatest drawback and was the recent title of a western camping party's experience. Now winter is here and eggs harder to secure, we shall want them all the more in the sense of wish for them, and I hope not want eggs in the sense of lack them. Whenever anybody asks me the secret of egg production, I tell them, give good general care, then the eggs have to come and will come before one knows it. The health of a hen and her productiveness stand or fall together. There is no divorce possible between her egg product and a due regard for biddy's welfare and comfort. In this variable, severe climate, wagon and cattle sheds or old barns are unsuitable and inhuman roosting places. A henhouse especially constructed for its purpose, and neither leaky nor draughty, but warm and ventilated from the bottom, will prevent colds and roup. If parasites sap the life of hens, there can be no vigor nor material left for eggs. The value of lime as a poulterer's assistant is not fully known. Every day or so, toss, with a long-handled spoon, dry, air-slaked lime upon roosts and into nests and cracks, till it resembles a light fall of snow. This gives insects a very destructive asthma. I do not particularly throw lime over the droppings, as, like ashes, it destroys some of their particular manurial value, and frees so much ammonia there is a strong odor, unless done when the house can be open. Dry earth is really the best thing to put on droppings. Speaking of lime, are the permanent coops, which I hope have been built for the early comfort and healthy start of chickens, stored away, cleaned and whitewashed, safe from storm and decay, ready for use the moment your first spring chick peeps, or were said coops ricketty structures now adorning the woodpile? Sleet, slush, high winds and cold rain so chill hens that food which should make eggs goes to restore warmth, but my birds run out every suitable winter day. Idle hens learn egg and feather-eating. The New York Agricultural Experiment Station purposely let a known feather-eater remain in the pen with her companions, to which she soon taught her vicious trick, and then egg production fell off markedly, the explanation, I suppose, being indigestion from such a strange diet, and back of all, a lack of exercise. So far as convenient, I scatter my grain and hide it under clean stuff like leaves or straw, so the eaters thereof can work up an appetite and quicken their blood. I believe tame hens are the best layers. Fright temporarily paralyzes organs, checks flow of blood, and destroys appetite. The timid fowl never gets her share of food, and what she eats is consumed in jumping and flying, not in making eggs. Eggs broken within her are a sure cause of death, and prematurely dropping them is nearly as bad. I think I mentioned some of these things before, but have the example of a Bible prophet who said, "Line upon line, precept upon precept, here a little and there a little."

Now our chain is ready for its last link, namely, proper food. A little girl said, "Papa most always wants for breakfast what we hasn't got." If variety has been neglected, you will generally find your biddies longing for what you haven't fed. The shell of an egg has some phosphate, but more carbonate of lime in a form similar to chalk, and a little powdered chalk is sometimes given instead of lime itself in puddings. Oyster shells, ordered by the quantity from the east, this year are probably \$1.10 per 100 lbs. Ground bone contains more phosphates, and I have usually had that from the Northwestern Fertilizing Co., Union Stock Yards, Chicago, at 2 cents a pound, plus freight, and which may be better to build chicken frames and feathers. Tiny fragments of old meat seem still clinging to the bone, but not enough to hurt the hens or flavor eggs, as I can discover. One lady to whom I recommended ground bone, sent on her own account, then anxiously whispered next time she met me, "Have I got the right stuff? Ought it to smell so?" She was reassured when I informed her it was not intended for a parlor ornament. I personally know nothing of Mann's bone-cutter, but often see it recommended by those who have large flocks and wish to prepare their own fresh bone. One year I tried breaking up a few clam shells brought from our neighboring La Crosse river. They were well relished. Roasted bones, though less valuable than green ones, pound up easily on a hardwood block with a hammer. Albumen, chief constituent of white of egg, and the latter's traces of salt and sodium, are found in

milk and grains. With the other grains, corn, which should always be fed at night, furnishes the yolk its oil and albumen. The yolk also contains sulphur and a great variety of elements to which vegetables and grasses contribute. Grasses and vegetables also contain considerable soluble lime, so some fanciers rely on variety of food with plenty of grit to grind it, and do not specially provide bone or shell. Musty grain, decayed vegetables and tainted meat, in any quantity, will as surely vitiate a hen's blood as they would our own. To sum up, the poulterer is feeding for results. So much food in winter goes to create animal heat, there comes great saving and more comfort if grain is heated before fed, and warm cooked vegetables, meat or meal are given every day or so, with plenty of warm water twice a day. Then, what matters it

"That snow and sleet will raven  
Where the flowers bloomed in spring;  
We need not fear the wintry storm,  
Nor dread the north wind's wing."

## Filth and Lice.

Whether filth can be said to stand in a causative relation to lice or not, it is certain that they usually "hunt in couples," and where you find the one, there is the other also. It is also a further fact that where lice are abundant, eggs are scarce. And a still further fact is that where eggs are scarce profits grow exceedingly small and beautifully less, like the apples at the bottom of a barrel of a dishonest seller. The claim, therefore, is thus made: If you would have large profits you must have abundance of eggs; if you would have an abundance you must have a dearth of lice; if you would have a dearth of lice you must get rid of the filth in the houses. The moral is too obvious to require stating, but when you find a poulterer who is making a handsome profit of his fowls, we advise you to make an inspection of his houses and see how neat everything is, how free from lice the premises are, and how happy and contented his fowls seem to be as they go singing about their yards and inhale the fresh odor that arises from white-washed walls, sanded floors and carbolic-anointed roosts. These are matters that every poulterer should know, and knowing, should put into daily practice.

It most commonly occurs that the young fancier commences to cultivate poultry in the spring of the year. At that time it is thought to be the most economical to purchase a setting or two of fancy eggs, from which, with good luck, half a dozen or a dozen chickens may be secured. If the chicks can be got out early, and carried through April safely, this plan is very well, and the amateur who has courage to buy eggs enough to give him a good-sized flock of chicks at first, which, with extra attention he is able to rear, is lucky. We incline to the opinion, however, that the better method is to commence with young stock in the fall of the year. The reasons for this preference are, that prime young fowls can be obtained at less average cost in November and December than at a later period. Breeders have surplus birds to sell then, and a better opportunity to choose the quality is offered at that time of the year.

Buy now, before severe cold weather sets in, when fowls are liable to be injured in transportation.

Fanciers will demand much higher figures next spring, and justly, for it will have cost them a considerable sum to keep their flocks through the intervening months.

Well-bred birds of any variety are the best and most profitable stock to keep, whether we have few or many, and these will turn to best account the food and labor bestowed upon them by more quickly fattening, by more thrifty growth, or by giving us eggs more abundantly in their season. The old mongrel race of farm-yard fowls have well nigh "played out" in this country, and wherever we see a flock of this kind, in these days, we are constrained to believe that their owner does not read the poultry or agricultural papers much, in which, at a very trifling cost annually, he might readily learn how he could improve his income in this respect.

Fowls fed on buckwheat are of fine flavor. Why not give your fowls some instead of all the rubbish that is fanned out of grain, and on which they can scarcely live?

## Plymouth Rocks.

To settle an argument, please say, if you can, the points of a Plymouth Rock. A says a pure-bred Plymouth Rock has yellow legs with black spots on them; B says clean yellow legs; C says light or white legs; D says feathered yellow legs.

OLD SUBSCRIBER.

There are three varieties of the Plymouth Rocks:—The Barred, the Pea Comb Barred, and the White, but there is practically no difference in the scale of points except that which the names would signify.

In the standard of excellence the points given for the legs are identically the same.

They are for the male:—Thighs.—Large, strong, well-covered with soft feathers; Shanks.—Of medium length, stout in bone, well apart, yellow; Toes.—Straight, strong, well spread, of medium length, yellow.

Female:—Thighs.—Of medium size and well covered with soft feathers; Shanks.—Of medium length, fine in bone, well apart, yellow, which in hens may shade to light straw color; Toes.—Straight, well spread, of medium length, and in color the same as the shanks.

Disqualification.—Any feathers on shanks or toes.

## Poultry Notes.

As to feeding:—For the morning meal take all table scraps of the day before, water from boiled potatoes, and clover leaves and blossoms cooked, and often cabbage, apples and potatoes, cooked and mashed, ham-rinds, and waste pieces of beef cocked and cut fine; then this is salted, and black pepper added, and occasionally cayenne. While this is scalding hot, make it thick with the following feed:—A mixture of 2 parts wheat bran, 2 parts wheat middlings and 1 part cornmeal. Give of this all that will be eaten clean. For drink supply fresh hot water in clean vessels both morning and night. Give plenty of grit, chaff and clover to pick at through the day, and at night a good meal of some one of the following grains: Wheat, oats, barley, buckwheat, and when the weather is very cold, corn heated in the oven. Keep their quarters clean and the birds free from lice, and in first-class condition. They should always have at hand plenty of material for the necessary dustbath. Sunflower seeds are a good thing for poultry. The writer has raised quite a quantity for two years, and intends to have more the coming season.

The whole story of getting eggs in the winter can be resolved into three simple rules.

- 1st. Hatch the chickens early.
- 2nd. Keep them growing so the pullets will come to laying maturity in October (by November 1).
- 3rd. Keep them laying by good food and good care.

## An Electric Horsewhip.

Some months ago an enquiry came to us asking if there was not an electric whip or stick of some kind that could be used for taming a vicious horse. Our veterinarian replied that he knew of no such invention. We noticed the following in an exchange recently, and give it for what it is worth:—

"It seems doubtful whether objection can be brought against the latest form of horsewhip, which is constructed so as to give a slight electric shock to the animal. The handle, which is made of celluloid, contains a small induction coil and battery, the circuit being closed by means of a spring push. The extremity of the whip consists of two small copper plates insulated from each other, each of which is provided with a tiny point. The plates are connected with the induction coil by means of a couple of fine insulated wires. As a means of surprising a sluggish animal into doing his best work without the infliction of physical pain, the electrical horsewhip will by many be hailed with gladness."

## A WORD TO AGENTS.

## Farmers' Sons and Daughters, Students and Teachers.

Any honest, thrifty person, male or female, can earn good wages and obtain regular employment canvassing for new subscribers to the FARMER'S ADVOCATE. This is honorable work, benefiting the subscriber, the agent and the publisher.

The past year has been a very successful one with us. Our subscription list has grown. Our paper is daily becoming more popular all over the Dominion. The regular agents now in our employ are doing exceedingly well, earning for themselves, above expenses, from \$30 to \$85 per month, depending on the energy and industry of the individual. With a little practice any man equally industrious and earnest could do as well. At what business, without capital invested, can you do as well? We will give to all new paid-up subscribers the balance of this year and 1894 for \$1.00; for \$1.10 we will give the ADVOCATE for the same period and one copy of our splendid picture, "Canada's Pride," a few copies of which we have on hand. With such inducements as these we trust our friends will send us many new names between now and Christmas. If possible start to work immediately, before the other papers are in the field.

The following cash commissions are given to all our agents: From 10 to 20 names, 25c. each; 20 to 50 names, 35c. each; 50 to 100 names and upwards, 40c. each. Special terms will be made with those who wish to canvass continually. A short time ago, a farmer and his daughter earned \$180 in ten days taking new subscribers for us. Those who would sooner receive live stock or implements than cash commissions can be supplied advantageously. See our prize list advertised in next issue. We will guarantee the safe arrival of every animal and article, and will further guarantee that all prizes will be of good quality and satisfactory in every respect.



THE QUIET HOUR.

"The Child on the Judgment Seat."

Where hast thou been toiling all day, sweet heart, That thy brow is burdened and sad? The Master's work may make weary feet, But it leaves the spirit glad. Was thy garden nipped with the midnight frost, Or scorched with the mid-day glare? Were thy vines laid low, or thy lilies crush'd, That thy face is so full of care? "No pleasant garden-toils were mine; I have sate on the judgment seat; Where the Master sits at eye, and calls The children around his feet." How comest thou on the judgment seat, Sweet heart! Who set thee there? 'Tis a lonely and lofty seat for thee, And well might fill thee with care. "I climb'd on the judgment seat myself. I have sate there alone all day, For it grieved me to see the children around Idling their life away. They wasted the Master's precious seed, They wanted the precious hours; They trained not the vines, nor gather'd the fruits, And they tramped the sweet, meek flowers." And what hast thou done on the judgment seat, Sweet heart! What didst thou there? Would the idlers heed thy childish glare? Did the garden mend by thy care? "Nay, that grieved me more. I called and I cried, But they left me there forlorn; My voice was weak, and they heeded not, Or they laughed my words to scorn." Ah, the judgment seat was not for thee! The servants were not thine! And the eyes which adjudge the praise and the blame See further than thine or mine. The voice that shall sound there at eve sweet heart, Will not raise its tones to be heard. It will hush the earth, and hush the hearts, And none will resist its word. "Should I see the Master's treasures lost, The stores that should feed His poor, And not lift my voice, be it weak as it may, And not be grieved sore?" Wait till the evening falls, sweet heart, Wait till the evening falls; The Master is near and knoweth all; Wait till the Master calls. But how fared thy garden-plot, sweet heart! Whilst thou sat'st on the judgment seat; Who watered thy roses and train'd thy vines, And kept them from careless feet? "Nay, that is saddest of all to me, That is the saddest of all: My vines are trailing, my roses are parch'd, My lilies droop and fall." Go back to thy garden-plot, sweet heart; Go back, till the evening falls, And bind thy lilies, and train thy vines, Till for thee the Master calls. Go, make thy garden fair as thou canst, Thou workest never alone; Perchance he whose plot is next to thine Will see it, and mend his own. And the next may copy his, sweet heart, Till all grows fair and sweet. And when the Master comes at eve, Happy faces His coming will greet. Then shall thy joy be full, sweet heart, In the garden so fair to see, In the Master's words of praise for all, In a look of His own for thee.

Readiness to Judge.

To condemn our brother without reason, proof or reflection, is what we each one of us do almost as soon as we are capable of thinking, and almost at every moment of the day. A habit of rash and ill-natured judgment shows more than anything else that the soul is not living the new life—the life of God. It announces that the two principles of life, humility and charity, are still foreign to it. The coarsest have a very delicate conscience when it comes to judging their neighbors. In confessing, as we needs must, that unfavorable judgments form the groundwork of conversations in general, how can we help concluding that men find their interest or their pleasure therein?

In what cases is it allowable to pass judgment? In those where to be silent would involve an offence against the glory of God, or an injustice to our neighbor. In such cases, provided we speak in our own name, there is courage and Christian generosity in clearly expressing the opinion we hold of our brothers, even when it is very unfavorable.

Before we judge like God, let us see as He does "whose eyes are too pure to behold iniquity." Then, humbled by the evil we discover in ourselves, we shall feel that we have something better to do than to spy with curious eyes the secret sentiments of our neighbor's heart. Generally, we judge those faults and vices which directly injure society much more severely than those from which only individuals seem to suffer, because we proceed from the point of view of the general interest, in which our own is comprehended. Most men, in that narrow cause which is at bottom that of their own self, fail to reflect that, from the point of view of the gospel, a simple act of selfishness may be found much more serious than a theft, for it contains the germ of all crimes, and it has not the excuse of material necessity.—[Vinet.]

Impossibilities.

Be not angry that you cannot make others as you wish them to be, since you cannot make yourself what you wish to be.—[Thomas A. Kempis.]

The best corrective of intolerance in disposition is increase of wisdom and enlarged experience of life. Hence men of culture and experience are invariably found the most forbearing and tolerant, as ignorant and narrow-minded persons are found the most unforgiving and intolerant.—[S. Smiles.]

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES:—

Do not affect to despise riches, for sneers levelled at those better off than ourselves in this world's goods look as if we were relieving the bitterness of our own feelings because we are less fortunate. It cannot be denied that the greatest power this earth holds for man is wealth. And the day the first deposit is made may be called the most important in that person's life, for it is the commencement of many a moral destiny, because the individual ceases to be a slavish dependent, and a sense of freedom from bondage and a new and fresh feeling of kindness to his fellow men is felt perhaps for the first time. The philanthropist who leaves the bulk of his estate to endow a college or found a hospital is a benefactor to his fellows. True, the possession of riches does not exempt us from pain, sickness, sorrow, or any other affliction, but it softens and alleviates them, and smooths the rough spots on the road of life that make the wrinkles come prematurely, and give us the headache as they jar our sensibilities, and make us die before our time. We should not love them for themselves, but for all the good we can do with them. It is very true, little money is required to supply the necessities of life, but we may have enough to eat and be starving, for enough to eat is not the whole range of our wants; the mental faculties have a long list of requirements as well, which add much to the enjoyments of life. I need not enumerate them, for they are too well known, and the lack of means to gratify them too keenly felt by all unselfish persons. The possession of riches has an expanding, elevating influence, and its moral importance cannot be too highly rated. So do not underrate the mighty dollar and call it vulgar. It has been refined by man's labor and for man's use out of material God provided.

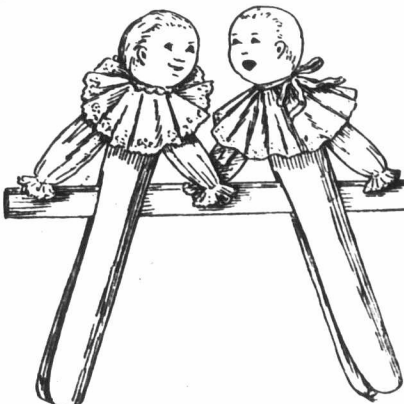
Thou more than stone of the philosopher! Thou touchstone of philosophy herself! Thou bright eye of the mind. Thou loadstar of the soul! Thou true magnetic pole, to which All hearts point duly north, like trembling needles!

MINNIE MAY.

P.S.—Minnie May offers a prize of \$2.00 for the best essay on "Home Nursing." All communications to be in our office by the 6th of January.

Page-Holder for a Music-Book.

An ingenious device, not only pretty and comical, but of practical value to the musically inclined. It is a book-opener or page-holder designed to hold open the leaves of large music-books used with pianos and organs. One of these holders—"musical attendants" they are sometimes called—would make a charming gift for a musical friend of either sex.



PAGE-HOLDER FOR A MUSIC-BOOK.

Glue to the top a solid pad made of narrow strips of muslin or cambric wound into a round ball nearly an inch in diameter, pat it down around the top of the clothes-pin, wind a bit of muslin smoothly over the joining, cover the whole with a layer of sheet wadding, and over that fit a covering of soft white or flesh-tinted silk, making it as smooth as possible and tying it on, around the neck of the pin, with a tightly drawn thread. For the arms, make little rolls of cambric, cover them with silk or lace baby sleeves, and attach them, one at each side of the neck, with needle and thread and a drop



Page Holder.

of glue on the shoulder of the pin. Paint the faces as represented, using oil or water colors; or simply sketch the features and lightly outline the hair with sepia. Put a ruffle of embroidered silk or pretty lace around the neck, finishing it at the top with a shirred heading or a ribbon tied in a bow at one side. Mount the pins on a slender gilded or enameled hardwood stick, passed through them as seen in the sketch and glued to position; then, with tiny tacks and glue,



Page Holder.

Open a music-book, slip the pins over the top, one on each side, and see how useful the happy, smiling little twins can be. As sketched, one is trying with all its little might to assist in the sing-

ing, while the other is delightedly listening. Another holder might represent a pair of lovers ecstatically singing together, and another a pair of quarrelling choir-singers; by the artistic, the little figures may be made to represent any chosen characters. But those who can draw but little may produce very pleasing effects by first sketching the faces, then dressing the figures according to the resulting expressions.

Single pins make pretty openers for any book. One shows a single pin representing a fat urchin, in a cape and scarlet cap, trying to look like a frowning, spectacled student. It was designed for a fun-loving maiden whose fiance was of a serious, literary turn. The other is a quaint little "old-fashioned girl" in a frilled cap and lace cape.

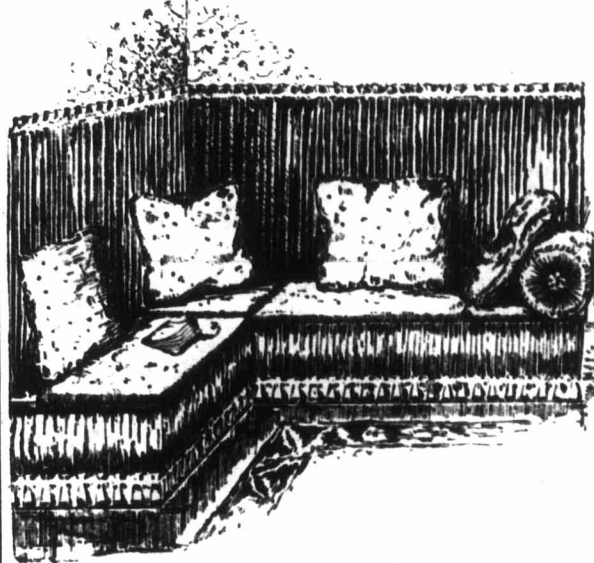
These single pins are so easily trimmed that dozens, all differing, might be prepared in a short time and utilized as party favors or prizes.—Frances H. Perry, in Demorest's Family Magazine.

Cosy Corners.

BY EVELYN L.

To have one's house cosy and home-like should be a primary consideration. No matter how expensive the furnishing, nor how careful the arrangement, if there be no air of home life about a room, it lacks what should be its chief charm. In these days of art magazines and deft and ready fingers, even the housewife with a scanty purse need not despair of keeping pace with at least a few of the new ideas in art decoration, and of giving to her home some of those pretty touches which serve so materially to brighten and beautify it. Soft draperies of silk or even of the art muslins which come in such lovely designs will be found very effective, if care be exercised in the harmonizing of colors and surroundings.

The tendency of late years has been to allow full scope for individual taste in furnishing, and the result has been a decided advance from an artistic point of view. With what an involuntary shudder do we recall that "best room" of years gone by, which was indeed a study in cold, dreary stiffness. The black hair-cloth furniture, decorated with tidies of wonderful pattern and hue, the ornaments on mantel or centre-table standing primly in pairs, the pictures hung at the same level and safely out of reach, all combined to form a picture we desire to forget as quickly as possible.

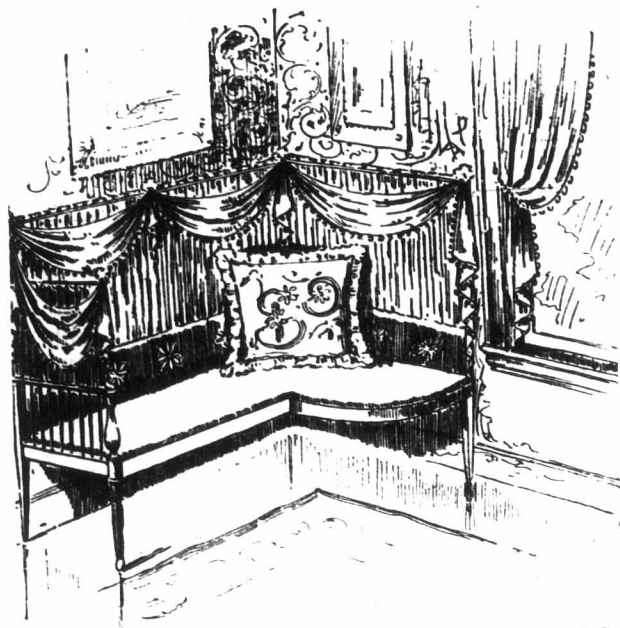


Drawing-rooms and all rooms are much more comfortable than they used to be, and one pretty fashion of the present, which bids fair to last, is the fitting up of cosy corners.

The design shown in our first illustration is about as simple and convenient an arrangement as can be devised, and its construction is described in one of our leading exchanges as follows:—

"The foundation consists of two boxes (which may be made of ordinary hemlock boards, such as are used for packing purposes) and should be provided with hinged covers, which form the seat. The covers must be hinged about three inches from the back line, so as to permit their falling back against the wall when raised; and should be made in two sections, the piece of seat in the angle of corner to remain stationary. The seat should measure sixteen inches from the floor without the cushion, and be twenty-four inches deep to the wall; the length, of course, being governed by the size of available space. The inside of the boxes may be lined or painted, as desired. The expense after this much has been accomplished depends entirely on one's choice of material for upholstery and drapery. Any pretty pattern in chintz or cretonne, of which there are numberless patterns and colorings to be had at prices to suit all purses, would be most suitable for a bedroom or boudoir. The figured denim may be used, or jute or any of the similar materials that come at moderate prices. India silk, or some one of its imitations, can be used for the wall guard, and should be plaited or gathered on two brass rods attached to the wall, at the top and bottom respectively. The pillows may be of the goods used for the guard, but it is not unusual to have them of different colors and materials. The seat may be upholstered with a few folds of an old quilt, or hair can be purchased by the pound for stuffing. The round bolster may be omitted,

or if used should have a foundation of wood, and be fastened to the box so as not to roll off." This corner will be found very suitable for the sitting-room or living-room of the family. Make plenty of pillows, some with soft, full frills, and others plain, but above all things, make them so that you will not be afraid to use them, for the chief attraction of a cosy corner is the fact of its being a place of rest. The need of some place to drop down for a moment and forget things is a crying one in most homes, and the value of even a comfortable old lounge cannot be over-estimated. The next time your cares and worries seem greater than you can bear, just throw yourself down on the sofa for a little while, shut your eyes and pretend you have not a care. Allow the tension to loosen, if even for a few moments, and you will arise stronger and braver to meet them. We keep ourselves so highly strung that it is small wonder the cord so often snaps and shattered nerves are left as a result.



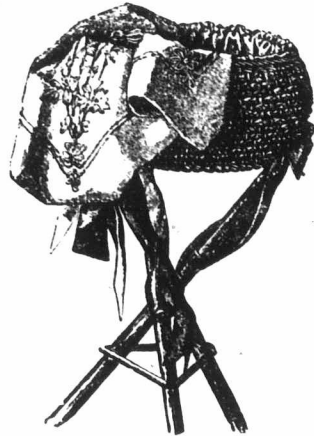
In our second illustration we have a more elaborate corner, which will be found more suitable for drawing-room decoration. The original was executed in pale blue enamel ornamented with silver, while the draperies were of harmonizing colors. Another pretty fancy is to use a curtain to drape the corner on one side, using a jewelled lamp for light, but where the room is heated by a stove or open fire-place it is not well to do so, as the drapery shuts out the heat.

**Pretty Christmas Gifts.**

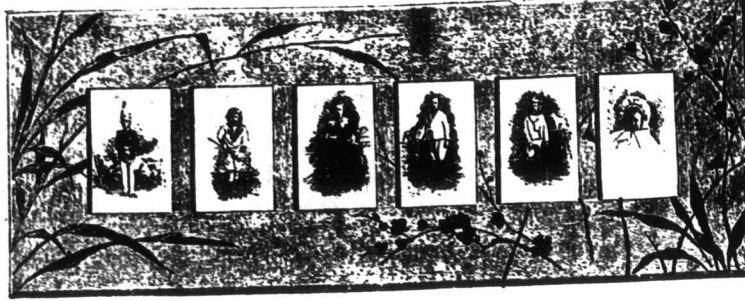
A few suggestions for making pretty trifles for Christmas will, I trust, be found useful to our many readers.



No. 1.—Penwiper and paper weight combined. It is three and a-half inches square at the base and one and a-half at the top, and two inches in height. Make a box of pasteboard, according to these dimensions, covering the bottom with any plain silk or bronze morocco, and the sides with rich brocade, chamois, or plain satin, and either paint or embroider the pieces. Join the pieces together with neat overhand stitches; fill the inside with fine gravel or shot, and stuff the opening with rolls of fringed chamois or strips of silk or old kid pinked on the edges. Never make a penwiper with woolen stuff of any sort, as infinitesimal threads are sure to catch upon the pen.



No. 2.—A work-stand made of a round basket lined with yellow india silk, and fastened to supports of bamboo twenty-three and a-half inches long. A square of silk to match or harmonize with the lining and ribbons is gayly embroidered to serve as a cover. Any round basket can be used for this, and a square one be made similarly with four rods instead of a tripod. The little bamboo canes are very pretty for the purpose.



No. 3.—For this pretty photograph-frame a thin board is required about one yard long and thirteen and a-half inches wide. If the home carpenter is not skilful enough to cut the openings for the photographs, the "Handy Andy" of the village must be called upon for this part of the work. The wood is finished with enamel paint, either ivory or a delicate pearl-color, and afterwards decorated with a few grasses and blossoming twigs, painted. The same design can be easily carried out for a simple *passee partout* frame by using heavy water-color paper as a mat and decorating it as in the illustration. Put glass over the mat, and use stout cardboard for the back, fastening all together with a narrow band of bronze or gilt paper pasted smoothly over the edges.

No. 4.—Half a yard of satin, velvet or plush, lined with a pretty contrasting color, will make a bag both odd and graceful if put together in the following way:—Say you use plush of silvery light blue, and line it with pale gold satin, finishing the edges neatly. Now fold over and join one side only; then gather the other side, drawing it toward the top; this will form a three-cornered bag, as shown in the illustration. Tie the gathered end with ribbon to match the lining, carry it across and fasten neatly on the other side, thus making a loop by which to suspend. Select the prettiest of your small shells, and drill a tiny hole in each with the point of your penknife. Sew these along each side, allowing them to fall loosely like a fringe, and if you wish something really exquisite, paint on each shell a delicate bud or blossom. Another appropriate decoration would be a delicate tracery as of sea-weed, done with the needle and silk thread. This bag was designed to hold photographs, but it may be placed to various other uses.



dings, mince pies and other good things will soon be on the way. And mother is ever and anon storing away mysterious looking packages, while the little ones are almost dying of curiosity as to their contents. Altogether what a pleasant sense of anticipation reigns everywhere. Only twenty-four days more! How busy you will have to be, to have ready your welcome for this time-honored guest. Those who go to school are striving hard to carry off the yearly prizes, while others are preparing

their recitations for the Xmas tree entertainment. And the tree itself is already maked out from among its fellows—the tree that soon will blaze with many hued lights and bend beneath the tokens of good will so lovingly hung upon it. But of all the presents received at such a time none are so dear to the little ones as those Santa Claus puts in their stockings, so do not let St. Nicholas forget that you have little brothers and sisters. Do not quaint remarks, their enjoyment and their delight, as they draw forth one by one their treasures, afford as much pleasure to you older ones and make you wish you were as young as they? Charles Dickens, the eminent novelist, says: "It is good for grown-up people to be children sometimes, and never better than at Christmas," and your Uncle Tom quite agrees with him.

Pardon the digression, but have not all of you read some of his works? Those of you who have cannot have failed to notice his tenderness for children. Those who have not have missed a treat. His Christmas tales are just the thing to amuse and instruct you these long evenings when lessons are over and you sit around the fire. What a pity there are not more old-fashioned fire-places and hearths, such as he describes in these charming stories. Although in Canada it is so cold that the cricket has long since ceased to chirp, the kettle still hums, and the chimes of the village bells ring out as of old their notes of cheer, and perhaps, if we listen closely, we too may find in them a language even as Toby did.

The coming of Christmas reminds me that it will soon be time to settle accounts with my puzzlers. But there is still one month in which to work, and much may be done in that time.

But I cannot draw my thoughts away from the approaching festival, for, like Scrooge's nephew, I think of it "as a good time, a kind, forgiving, charitable, pleasant time; the only time when men and women seem by one consent to open their shut-up hearts, and to think of people below them as if they were really fellow-passengers to the grave, and not another race of creatures bound on other journeys. And therefore, though it has never put a scrap of gold or silver in my pocket, I believe it has done me good and will do me good; and, I say, God bless it."

But I must leave room for the puzzles, even tho', dear boys and girls, I am loath to leave you. I would fain join with you in your merry-making, but, this being impossible, I can only wish you from my heart, a merry, merry Christmas, and conclude with the prayer of Tiny Tim—"God bless us, every one."

P. S.—Uncle Tom offers a prize of \$1.00 for the best description of games suitable for winter evenings; it being understood that we are at liberty to publish any of those sent in, even if they do not win the prize. Competition closes January 8th. In the coming year we will try a new experiment in the puzzle department and give a prize each issue for the best original puzzle, instead of taking the whole year's work into account, as heretofore. Contributors must be subscribers, or members of a subscriber's family. For January we offer \$1.00; 50c. for each issue. All puzzles to be in our office 20th December.

**UNCLE TOM'S DEPARTMENT.**

MY DEAR NEPHEWS AND NIECES:—

Again the ground is covered with its ermine robe, and once again we hear the merry sleighbells as they "tinkle, tinkle, tinkle in the icy air of night" and a very pleasant sound it is Jack Frost, too, has been going his rounds, for there is his autograph on the windows, and what a clever artist he is.

"Morning! Each pane is a garden of frost  
Of delicate flow'ring as quickly lost,  
For the stalks are fed by the moon's cold beams,  
And the leaves are woven like a woof of dreams  
By night's keen breath, and a glance of the sun,  
Like dreams, will scatter them every one."

But, what care you for the frost and cold? Why it is just what you want to convert that fine pond into a sliding-place. And even the smallest among you knows that soon after old mother earth dons her white mantle, there is something else to be looked forward to—something that fills all our hearts with joy. If each of you were asked what you are thinking of just now, I know in most cases the answer would be that something to which I allude—Christmas, beautiful Christmas, so old and yet so new. With the poet, Miller, we may say:—

"What though on Xmas' hoary head  
Have fallen many a winter's snow,  
His wreath is still as green and red  
As 'twas a thousand years ago!  
For what has he to do with care?  
His wassail bowl and old arm-chair  
Are ever standing ready there,  
For Christmas comes but once a year."

Yes, just once a year, and it is almost time for his visit now. Of this, however, I might not remind you, for already the deft fingers of my older nieces are busy fashioning the pretty presents that in a few days will gladden the hearts of their dear ones. And what a lot of shopping is being done! There comes father from the grocer's with such piles of parcels it is easy to know that plum-pud-

**UNCLE TOM'S PICTURE GALLERY.**

**Life's Reflection.**

BY AGNES FIDDIS, DEANS P. O., ONT.

Far away among the flowery dells and sunny hills lies a little pond, in whose sparkling waters the gay sunbeams dance and play among the fair, sweet pond lilies. From the mossy banks the elms, tall and graceful, cast their beautiful, picturesque shadows in the clear waters beneath, the sturdy oaks rear their majestic heads above the glassy surface, while the slender poplars flutter gaily in the flower-scented breeze of rosy June. Out of its leafy recess the thrush, from its tender, musical throat, pours forth its sweetened song of love and melody, while, gaily flying from tree to tree, its bright plumage flashing in the glorious sunlight, the sweet-voiced oriole sings its song of careless joy and happy freedom.

At the foot of the little hill overlooking the tiny pond nestles an ivy-clad cottage, whose pleasant windows look out on blooming roses, delicately perfumed mignonette and sweet-scented cluster of pink-tinted apple blossoms. Peeping through the vines of the beautiful climbing rose is a fair, young face—a face in which love and truth shine forth in glorious brightness and resplendent beauty. The eyes sparkle and dance with the bubbling emotion of youth, or, anon, assume a far-away, dreamy expression, changing into a melting look of tenderest love









STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate. The Guelph Fat Stock Show, to be held in Guelph, Ont., December 6th and 7th, 1893, promises to be a grand success.

THE SHEEP AND SWINE BREEDERS CONVENTION. The annual meeting of the Dominion Swine Breeders' Association will convene in the City Hall, Guelph, December 5th, at 10 a. m.

The annual meeting of the Dominion Sheep Breeders' Association will be held in the same city and hall, and at the same hours, morning, afternoon and evening, December 6th.

A VALUABLE CUP TO BE OFFERED AT GUELPH. Messrs. Wm. Cooper & Nephews, Galveston, Texas, manufacturers of the celebrated Cooper Sheep Dip, offer a sterling silver cup, valued at \$100, as a sweepstake prize for best sheep shown at the Ontario Provincial Fat Stock Show.

The celebrated stables of Mr. T. D. Hodgson, near London, were destroyed by fire recently, and about 30 of his fine thoroughbreds and standard-bred horses perished in the flames.

R. Rivers & Son, of Springhill Farm, Walkerton, report their young Shorthorns doing well since coming into winter quarters.

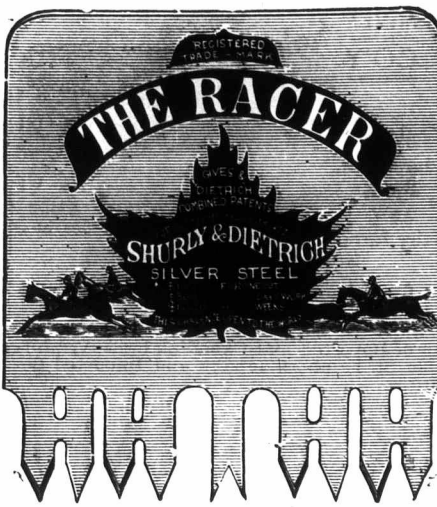
Mr. Bedford, Superintendent of the Brandon Experimental Farm, writes up that the sale of young bulls held on the farm, on November 15th, was not as great a success as could have been wished.

We are glad to learn from correspondence with Mr. D. McCrae, of Guelph, that a permanent association has been formed in Guelph, with the view of holding an annual auction sale of cattle, sheep and pigs.

S. J. Pearson & Son, of Meadowvale, Ont., advertise for sale this month their imported Shorthorn bull, Toftills, which was first at Toronto Industrial, 1892.

E. Gaunt & Sons, breeders of Shorthorn cattle and Leicester sheep, St. Helens, Ont., when sending us a change of advertisement, write: "Our sales of Leicesters have been very good."

J. E. Brethour, Burford, Ont., under date of November 21st, writes: "The Oak Lodge herd of Yorkshire pigs are now comfortably located in their new quarters, which comprises a new building one hundred feet long by thirty feet wide, which is capable of holding one hundred and thirty hogs."



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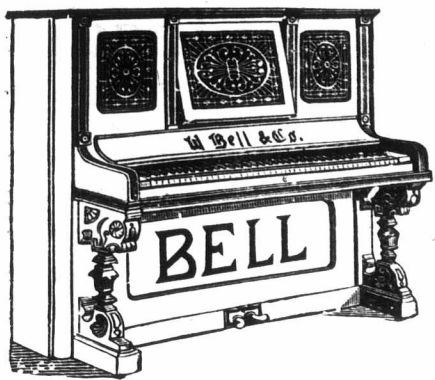
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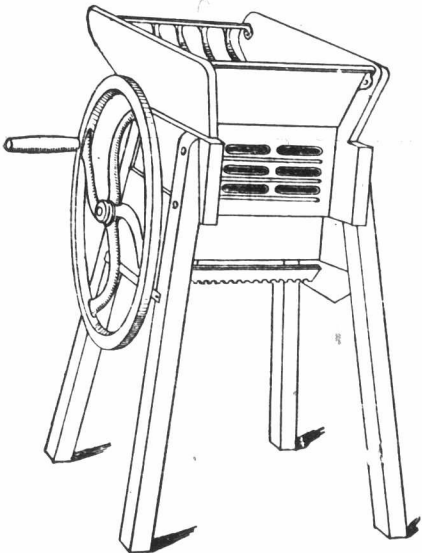
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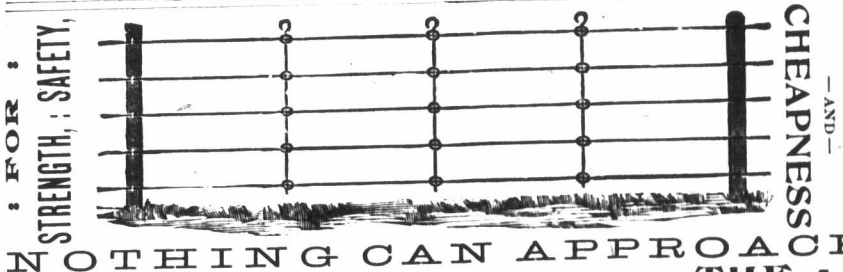
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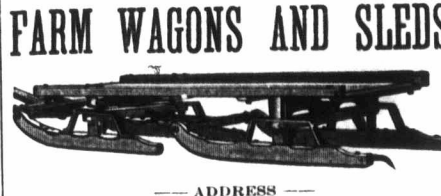


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