THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

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THE FARMER'S ADVOCATE

—AND—

Home Magazine.

WILLIAM WELD, - Editor and Proprietor

The Only Illustrated Agricultural Journal Published in the Dominion.

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THE FARMER'S ADVOCATE, LONDON, ONT., CANADA.

Adieu to 1880.

This number completes the 15th volume of the FARMER'S ADVOCATE. It is but right that we should take a retrospective view of the past, as many thousands of new subscribers have been added since the commencement of this publication, and our old friends, we know, will not object to a few explanations to our new supporters.

Fifteen years ago this journal was commenced in a very small and unpretentious form. It was not one-eighth the size of the present issue, and the first year's receipts were not one-twentieth of the present receipts. The journal was merely brought out to show the wrongs and abuses which farmers were suffering under, and to advocate and advance their interests.

One of the results of the writings and addresses given by the Editor has been the establishment of the Model Farm and Ontario School of Agriculture. The great opposition that this journal has always given to attempts that have been made by both political parties to make this institution and the funds granted to it subservient to party purposes, has been the sole reason that this paper has not received the patronage of Government expenditures in any form.

One of the great boons that the FARMER'S ADVOCATE has conferred was the prevention of the spread of dangerous diseases among our farm stock. In this grand achievement alone we have tended to enhance the annual receipts of every farmer in Canada, and greatly increased the real value of every acre in our Dominion. Some intelligent farmers say that he benefits accruing to the country from our expenditures and writings can be computed at millions of dollars, that is, estimating the advantages of the seed grain introduced and the checking of the spread of contagious diseases among our farm stock. See back numbers, and read reports of political papers at that time condemning our course. Which has proved victorious?

Read the best, most practical and the cheapest way to instruct agriculture and horticulture, as first introduced on page 225 of the 15th volume of the ADVOCATE. This plan we shall labor to introduce.

(Time and space will not allow the enumeration of the funds of valuable information supplied. See index in this issue and in previous volumes.)

Large sums have been expended by us to introduce and maintain, and give information about the best stock, seeds and implements, and that information, gained at great expense, has tended to increase the wealth of our country. The farmers have from experience found the value of the ADVOCATE returned to them every year in information, or they would not have supported the journal; and despite the numerous obstacles placed in our way by opponents, the paper has yearly increased in favor, and the support it has received from the leading practical farmers has been such as to enable us to increase its size, improve its illustrations and secure the aid of better writers each year.

We have been compelled to pay heavy postage for our paper when political papers could be nearly exempted from the tax. We have had four opposing agricultural papers, fostered by Government aid, to contend against, and yet we have been able to outlive them and flourish without the country ever having to be taxed for our support.

The prospects are such that we feel justified in assuring you that you will have a better volume for 1881 than any previous volume has been. Our supporters, we think, may look back with pride and honor to what they have aided us to accomplish, namely, the establishment of an independent agricultural journal in our Dominion, which even our American cousins admit to be quite equal to or superior to any agricultural monthly journal that is published on this continent.

As the year closes, if we have faithfully done our duty to you, we hope for a renewal of your approval. We thank you for past favors, and solicit a continuation of your support. The past season has been a more lucrative one to you than many of its predecessors. The season of thanksgiving is at hand. You have been blessed in basket and in store; many have had to increase the storage capacities for their wealth. There are those that you know who are in need or sickness; endeavor, at this season of the year particularly, to dispose of some small portion of the great blessings you enjoy to those who need and deserve your sympathy. You have to account for the talent placed in your care; a little given in cases of need will return to you greater blessings.

Notice.

1.—With this number each subscriber receives an envelope in which to enclose his subscription. Those who have already paid may enclose the name of a new subscriber or two.

2.—These envelopes are all plainly addressed. By registering the letter, and retaining the certificate of registration, you have a receipt of payment, and require no other from this office, as registered letters containing subscriptions are at our risk.

3.—To save yourself from loss and annoyance, give the matter your personal attention—that is, enclose the money, and write your name and post-office; wet the edge of the envelope and mail it yourself—do not leave this to others. When anything goes wrong the trouble almost always is, "I told so-and-so to do it." Mail this envelope personally, and do your business direct with this office.

4.—If you are in possession of any useful or valuable information, or have any suggestions to offer that may be of benefit to the agriculturists of this Dominion, you may do good to others by forwarding them in a concise form to the only agricultural paper in Canada. Such information is readily inserted, and open and fair discussions are allowed. It is light the farmers require.

5.—Articles and correspondence for the paper, may be sent to us for one cent per four ounces, but it must not contain private correspondence.

6.—Questions of general interest are responded to through the ADVOCATE. Subscribers who require an answer from this office about their own business should never neglect to send a stamp for return postage.

The great satisfaction that resulted from the plants and cuttings sent as prizes last year enabled us to guarantee satisfaction to all who took care of them. We will send you plants or seed again this year, for every new subscriber you send us, accompanied with the cash. These prizes are only offered to old subscribers for their trouble in obtaining new ones. We give full value to any person in the ADVOCATE for their $1, but many that should take it are not yet subscribers. The price is only $1, in advance; we take no single subscriptions for a less sum, and give no premium chromos with the paper. By speaking a word at the proper time you may enable us to increase our circulation and improve our paper, as well as benefiting yourself, your neighbor and the whole Dominion. These valuable plants, seeds, roots and cuttings cannot be procured as cheaply in any other manner. See prize list in usual columns.

Heavy draft breeding horses seem to be in greater demand in the United States than ever before the days of railroads. During 1876 some 300 were imported from Europe, and the prospect now is, that even that number will be exceeded this year.

English Letter, No. 20.

[FROM OUR OWN CORRESPONDENT.]

Liverpool, November.

The season is anything but a lively one agriculturally; there is no news of interest. Of late we have been having deluges of rain, and vast floods, which have certainly not improved the state of the low-lying lands for fall sowing, and in some districts there have been serious losses amongst the stock. A friend of my own lost six out of nine yearling calves within a few weeks, and the mortality amongst young stock has been generally high of late.

Texan fever is causing a good deal of anxiety and alarm in this country. A report just issued by the Veterinary Department of the Privy Council states that though not strictly a contagious disease in the same sense as cattle plague or foot and mouth disease, there is no doubt that it can be communicated from Texan cattle to other breeds with which they may come in contact, or which may succeed them on pastures where they have dropped their excreta, &c. There is, however, this saving clause, as the lawyers say, in the matter—and an important one it is—that cattle which have caught the Texan fever from Texan cattle, cannot communicate it again. In other words, Texan cattle only have the power of communicating the disease to others. The importance of this limitation in the spread of the fever may be estimated from the fact that the mortality amongst English cattle which are attacked is 90 per cent. The fever has recently appeared at Tiptree, in Essex, and great anxiety is manifested about it, especially as it does not come within the scope of the contagious diseases acts. The appearance of this new terror to farmers will certainly not improve the prospects of the projected great trade in Texan cattle by means of the "Great Eastern."

I have already referred to the disastrous character of the harvest in Russia. Steamers are now being chartered in our eastern ports to carry wheat to Cronstadt, the port of St. Petersburg.

The agricultural returns for Great Britain and Ireland, which are published annually, and always present features of interest, have just appeared. In Great Britain, apart from Ireland, there are this year 32,102,000 acres of land in cultivation, and in Ireland 15,358,000, making a total for the British Isles, including the Channel Isles and the Isle of Man, of 47.587,000 acres. These figures are exclusive of mountain pasture, woods and plantations. In Great Britain the area under cultivation has increased 126,000 acres in the year and 694,000 acres during the last ten years. The land under wheat has increased slightly for the year, but was nearly 600,000 acres less than in 1870. Barley has decreased, but oats have increased in about the same proportion. Beans and peas have fallen off greatly, owing mainly to the competition of Indian corn. Potatoes are a larger breadth, but green crops as a whole show little change. There is a large amount of land in fallow —nearly a million acres—owing to the number of unoccupied farms. Rotation grasses and clover show little change; but permanent grasses have increased by 260,000 acres in the year, and now occupy 45 per cent. of the total area under cultivation. Orchards and market gardens have increased in a sufficient proportion to show that farmers in suitable localities are turning their attention seriously to these sources of profit. As to live stock, there has been a slight decrease in the number of agricultural horses, owing again to the large breadth of unoccupied land, but taking all classes, there has been an increase, notwithstanding the heavy falling off in imports, which has dropped to only 6,600. Horned cattle show an increase of 50,000; but sheep exhibit a falling off of nearly a million, owing to the ravages of disease. This loss has fallen wholly on England and Wales. Pigs continue to decline rapidly, the home producers finding it impossible to compete with American brands of bacon. In Ireland the changes are very similar to those in England. The cultivated area has increased, but the other items referred to show little fluctuation.

The horse trade during the past season has been but dull, and the imports have been exceptionally small. Those who profess to know, however, are looking forward to a brisk demand, with, of course, rising prices. Omnibus, tramway and van horses are likely to be most in request.

Mr. Thornton, the eminent auctioneer, had his last sale of Shorthors for the season, on Thursday last, Oct. 28th, when he disposed of 35 animals from Lord Penrhyn's herd, at Stoney Stratford, Buckinghamshire. They realized an average of £70 12s 5d per head, the highest price for a cow being given for eighth Belle of Oxford, 340 guineas. At the same sale Duke of Leicester, a splendid bull owned by Mr. Wolford, sold for 510 guineas, the Earl of Bective being the buyer.

Manufactures.

The agricultural implement manufacturers have a society and hold their annual meetings. This year it took place in Toronto, in the second week in November. It is quite right that birds of a feather should flock together and discuss matters that may be of interest and importance to them. From reports received we learn that this association has resolved not to exhibit at county agricultural exhibitions unless suitable buildings are erected for the protection of their exhibits. Local manufacturers may exhibit at local exhibitions, and agents at their own expense.

This conclusion has been arrived at on account of the enormous expense that the attendance at so many exhibitions has entailed on the manufacturer. They complain greatly about the loss and damage and lack of remunerative results from exhibiting at Hamilton this year, when the weather was wet and no shelter provided.

There should be moderation in all things. If the manufacturers have foolishly expended too much in attending too many exhibitions, and we believe they have, it is but right that they should curtail unnecessary expenses, and exhibit where they find it to their advantage to do so. But the sweeping resolution will not be found practical, and men will exhibit when they have a superior implement in such localities as their wares are in demand.

They have also passed a resolution not to exhibit at trials of implements. This has been brought about on account of numerous local agents demanding trials in localities where they are sure of being able to control the verdict, irrespective of the merits of competing machinery. Sometimes it is difficult to procure men sufficiently acquainted with machinery to be fit to decide between the machines, and the old maxim, namely, "Every crow thinks its own egg the whitest," is a very safe guide to go by. Every person who has used one kind of an implement and found it answer his purpose, is apt to be partial to that machine—not from any desire to act unjustly, but from use and association. The same feeling is evinced by stockmen who have been accustomed to one particular breed of animals, or even the strain of blood through which an animal may have been bred. Flagrant inconsistencies do often occur. For instance, the Forsyth reaper and mower carried off the first prize at the last Provincial trial of agricultural implements. Manufacturers said it was the worst machine on the ground; so bad was it that well-informed farmers would not use it, and the first prize Provincial reaper is not made by any manufacturer; the fact is, they all make a better implement, or they would have to shut up their factories. Fair and impartial trials might not have been objected to, but the lack of honesty and judgment may have influenced the members of this meeting.

The greatest good that appears to us to have been done has been an united effort to rid the manufacturers from a lot of untruthful, unprincipled agents—those who tell the farmer a lot of falsehoods to induce him to put his name to a paper. Of this class of men there are far too many, not only agents for manufactures, but patent right men, tree agents, notion agents, shoddy agents, and a host of others. The manufacturers have now discarded 48 of this class, and a heavier weeding is yet to take place. If a law was enacted to compel nurserymen and others to be responsible for the deception of agents and men allowed to travel under their certificate, or if the agents had real paid-up cash capital or unencumbered estate as a guarantee that farmers will not be defrauded, it would be of benefit to the farmers.

This association is about to petition the Government to amend the law for collecting debts, so that all debts be payable at the head office. This would facilitate collections, which is necessary. Farmers as a body are very remiss in punctuality. We do not consider them in point of honor in any way superior to our leading manufacturers; but there are practiced, accomplished, travelling swindlers who do a vast injury to farmers and who are difficult to restrain. We would like to see the honest farmer better protected against those who deceive him, and at the same time the collection of honest and just debts from those farmers who attempt to evade or put off paying their honest debts for value received should be facilitated.

Another Agricultural Enterprise.

Messrs. Stevens, Turner & Burns, of London, Ont., from the success and satisfaction that their portable farm engine has given, and having been driven with orders far in excess of their capacity to construct them, have just purchased a large piece of ground a short distance from the G. W. R. station, and are about to erect one of the finest engine shops in the west. This shop is to be built especially for the construction of engines for farm work. Their engine has many valuable advantages and features to commend it to the attention of purchasers; it is named the "Western Empire."

This enterprise shows the great prosperity and spirit of progress in Canada. Four years ago there was only one shop in this city that constructed portable agricultural engines; now there are four, and each of the new shops appear to be turning out more than the single shop did when alone, without detracting from it. These great enterprises, namely, four establishments in one city turning out as many portable agricultural engines as they can construct, must show the progress and improvements that are taking place. How many million bushels of grain the engines made in this city alone are capable of threshing, it would be a difficult task to estimate.

London appears to be destined to become the main centre of agricultural advancement, as these portable farm engines do and must stand at the top of the list of all improved agricultural machinery; whereas no other city or town in Canada has more than one establishment of this kind. And a very great consideration is this, that other enterprises of this and similar kinds have either received bonusses or special favors from assessments on the public. But not one of these enterprising manufacturers, namely, Leonard & Sons, Geo. White, Stevens, Turner & Burns, and Haggerts, have asked or received one cent. They stand, as every institution should stand, on its own merits, not on moneys coaxed from the people.

From the United States.

[BY OUR OWN CORRESPONDENT.]

Washington, D. C., Nov. 17, 1880.

The National Grange, Patrons of Husbandry, met in annual session in this city yesterday, and will continue in session for ten days. All the States in the Union were represented.

I have been talking to some smart substantial farmers, and give a few samples of their farm talk. One of these, from Seneca Co., N. Y., states that he has been trying this season the experiment of manufacturing syrup from the early Amber. He said he raised 4,200 lbs. of cane, stripped of tops and leaves for fodder, to the acre; that from this the yield of syrup was 320 gallons to the acre, each gallon weighing 11lb 5 oz. He attained this result by simply using a common pair of hand rollers to express the juice, and an ordinary kettle, such as used in maple camps, for boiling. With these limited facilities the results attained were so favorable that he intends to purchase, for next season, the necessary machinery at a cost of $300. As the portion of New York indicated is about the latitude of Ontario, we can see no reason why the same success should not attend the intelligent efforts of her farmers. Another sturdy eastern farmer said that owing to the high price of lands in the east, and the increasing value in those sections once called west, as well as the vicissitudes and casualties of grain raising, the eastern cultivators are beginning to give more attention to the culture of root crops for fattening purposes. From his personal experience with farm-stock he finds that five pounds of carrots and six pounds of oats are equivalent to ten pounds of oats. The usual cost of raising carrots is about 15 cents per bushel; 1,750 bushels of mangels were raised from one acre at a cost of seven cents per bushel, of which four hundred pounds are equal to one hundred pounds of hay. The crop was equivalent in nutritive value to twelve tons of hay. He says that after an experience of many years he is satisfied that, for feeding cows and stock ewes, roots—nature's substitute for green pastures—are not sufficiently appreciated. He alleges that with a ration over a peck of chopped roots to each cow, morning and evening, his cows are in as good condition and yield as much milk and butter during the winter and spring, as in summer and autumn. That he heard some years ago, and by experiment and practice has demonstrated its truth, that one acre of sugar beets will furnish as much food as ten acres of oats and saves his cows from hollow horn, staggers and other similar diseases, which he believes are frequently caused by feeding fermented, stimulating, unnatural slops.

There was horse-talk, hog-talk, chicken-talk, corn-talk, barley, rye, wheat and other talk, but too much to crowd on a ten acre farm, and certainly beyond the compass of this letter.

The latest reports at the Department of Agriculture show that the increase in the average of wheat for 1880 is 4,000,000 acres. This increase alone is more than equal to the total average of Great Britain for the same year. The total yield or product of wheat in the United States for present year is 31,000,000 bushels in excess of 1879, yet the yield per acre was about one-half bushel less than in 1879. Reports received at the Department from official sources in England show that bare fallow in Great Britain has increased from 724,000 acres to 812,000 acres, and has this year (1880) taken a larger area than in any year since 1870, when there were only 610,000 acres in fallow. The depression in agriculture, and the number of farms unlet and temporarily farmed by their owners, are stated by the collecting officials as the chief cause of so much land being uncropped. The report further states that the cultivated area is slightly larger in Ireland in 1880 than in 1878 and 1879, the increase being about 22,000 acres.

Lorne.

Emigration.

CANADA OR THE U. S.

"A visitor to Thomas Hughes' colony of Rugby, writes to the Louisville Courier-Journal, giving his impressions of the enterprise, which are by no means favorable. The young Englishmen brought over by Mr. Hughes have no idea of engaging in anything so low as manual labor. With them the whole thing is regarded as a frolic, and they lounge about the hotel while the people of the neighborhood are hired to do all the necessary work. None of the prominent movers in the matter seem disposed to become permanent residents. Their idea is evidently to sell out to some one else. The land is described as poor. It has previously been settled in spots, but there are no signs of agriculture having been successfully pursued. The correspondent thinks that if the company have paid more than 25 cents per acre they have got a dear bargain."

The above colony, which has been established in Rugby, Tennessee, by Mr. Hughes, who is one of the most prominent members in the House of Commons, has been lauded by the English and American newspapers as a perfect Eden, but from this extract we learn what the real nature of the land and colony is, and we have no doubt but that it is represented correctly. The Courier-Journal is the best paper in the South. We feel certain Mr. Hughes, or any other Englishman, would have been much more successful in any Province of the Dominion.

Thanksgiving Day.

After finishing our labors on the November issue, we were prepared to partake of the pleasures of an appointed holiday, namely, the 3rd of November, appointed by Government as a day of general thanksgiving. Some few of the citizens attended divine worship, but by far the larger number spent the day in visiting friends, in drives or walks in the country; and for the boys—from the age of 14 to 40—the great majority, who were able to procure a gun by any means, took one and spent most of the day at pigeon or glass-ball shooting, or wandering in the fields, woods or water-courses to shoot any wild creature to be found, whether it had two legs or four, whether useful or mischievous. Death was the intent, and woe betide the woodpecker or squirrel that dared to be seen within a day's drive of this city. The woods were literally filled with the continual crack of the guns.

The day was fine, clear and pleasant. We decided to enjoy it and endeavor to do our duty at the same time. Our artist was glad of the opportunity to get out of the four walls that confine him in his labors, and was as pleased to go as we were to take him for a drive of 12 miles, to make a sketch which we hope will be pleasing and profitable to you, namely,

THE TOWNSHIP EXHIBITION.

We passed through the village of Byron, through which the old stage road used to pass; in fact, this was formerly the main road between New York and Chicago, and many of the millionaires of the West no doubt have stopped at the old stone hotel that is now turned into a blacksmith's forge.

HALLOWE'EN SPORT.

Nearly opposite this hotel stands a large frame two-story building, tenantless and fast going to decay. We were amused, and so would you have been, to see on the top of this high old building an old wagon standing astride of the ridge, and the wagon loaded with corn stalks, with a pumpkin on top of a pile. Well, we were boys once, and we hope there will be boys when we are gone. They must have had a job when they got that wagon up there.

Near the village of Kilworth we observed another strange sight, and a more idiotic one we hope none of you may ever see. A full-grown man tried to reach through a fence that surrounded an orchard, and pick up an apple; the apple was beyond the reach of his arm, and he got on the fence, took the butt-end of his gun, and through the leaves and brush drew the apple within his reach. The gun was pointing directly to his head and chest. Boys, this is just the way that many angels are made. Angels may be good or bad.

As we journeyed o'er hill and dale, through woods and by the river's bank, we rejoiced in the day; the scenery we admired and felt thankful—may we say, we worshipped. Our artist claims that artists are the greatest worshippers. There are these beautiful scenes. Can they be appreciated by those who have no eyes or taste for the beautiful? Can they be rightly admired without the thoughts turning to the Power that has created and directs this and all these worlds that we see above us?

The Postmaster of London, Ont., said to us the other day, as we were paying $50 for postage—"I often wonder how you can make this paper pay, it is so well got up and so cheap." Farmers, do you know how we make it pay? It is in the large number we send out. Do you see how it has been increased in size, and how much better our illustrations are, and the improved talent displayed by the different contributors? All these improvements have been the result of the continued support of the best farmers in this Dominion. They know these numerous articles are the best that can be procured by us. They know we secure the aid of the best talent we can procure, either in Canada, the States or England. They read with interest and profit such independent and useful information about their own calling as they cannot obtain elsewhere. Therefore they can and do safely recommend the paper to their friends, and thus the circulation is continually increasing, which enables the proprietor to continually improve the paper. Many, young and old, take a little interest, and send us annually one or more new subscribers. To this class we tender our sincere thanks for their kind exertions, and we hope and believe that the ADVOCATE will stand as a memento of our united exertions, and continue to take rank as the present number, namely, the highest authority and the most useful publication in reference to agriculture in Canada, and taking no second position when compared with any agricultural monthly published in the world. Let us ask you are you the reader who has aided to build up this paper? If not, perhaps, by a slight exertion, you may help in this grand and useful undertaking, and perhaps be able to add one more name to the list of those who regard agriculture and the agriculturist as deserving the greatest attention, and open and fair discussions.

Caution.

A strong appeal is made on behalf of the Nebraska farmers, who are threatened with actual starvation, consequent on the utter failure of their crops.

Some of our subscribers may enumerate the cautions we have given them about Kansas, Nebraska and Arkansas from journeys into those States. Those that have saved their back numbers can still find the cautions given; but despite these cautions we know of Canadians that have gone to these States, many of whom have found early graves, and many more are in misery and will always be so. We do not decry all parts of the States, as we have been in localities where health is obtained and maintained, and where prosperity and plenty reig .

The Western Fair and Municipal Reform.

The city of London, Ont., has long been noted for having one of the best, if not the best, annual agricultural exhibitions in this Dominion. The by-laws of late have been framed, altered and arranged so as to continually increase the number of officers in a corporation, and also to create new institutions, and sometimes to select members, to such an extent, that the salaries, fees, perquisites, etc., to maintain this staff are already found to bear heavily on the producers. Situations are now so easily obtained by men without character, stability or honor, that many of the best, most independent and most honorable members of society would on no consideration take a seat among them. The citizens of London begin to feel the injury of such a system, and many of the aldermen have already supported resolutions to have the number reduced. These men of straw—men that have got into office and bear the name of aldermen—men who are totally regardless of the interests of agriculture, and even the interests of the city—have united to use their influence, and have been supported by a few speculating gobblers who desire to pocket something out of the wreck. They have attempted by cunning and deceptive measures to sell the beautiful grounds, and this against the wish and desire of by far the largest number of the inhabitants, and nearly all the wealthy ratepayers. The only way that the grounds could be saved was to throw the case into chancery, and thus stay proceedings for a time. Then, with difficulty, and by the aid of the Mayor, the sale was stopped. This exasperated the advocates of the sale to such an extent that one of these Aldermen went home and vented his rage on a poor apprentice, thrashing him when in bed to such a cruel extent that the medical men asserted such punishment was not allowed in the British army. The poor boy was pounded black and blue in a most heartless and cruel manner, and to attempt to shield such brutal treatment other Aldermen or ex-Aldermen, co-workers with this one,—advocates of the sale of the grounds,—attempted to justify and clear their friend; but the law would not allow this, and the case is up for trial.

Now, we instance this as the class of men that are running and ruining our country. The pruning hook must be sharpened, and this mass of Aldermen must be reduced. This, we feel sure, will be done. We would suggest that each municipality at once follow the example that is about to be set in London, and reduce the present number of legislators at least one-half. (Often five good men will do more work and do it better than thirty.) Then better men will accept office, and less time will be wasted by being compelled to listen to so many inflated windbags who delight to hear themselves speak. If any man has a good suggestion to make, the papers of the country are so numerous that it is far cheaper to print a speech than to occupy the time of a lot of people who are paid great salaries to work.

The multiplicity of officers tells against the farmers' interests every time. Look at the old Provincial Board, with about half as many members as it has now. It was then popular and successful; it is now a broken down, bankrupt, injurious institution.

The usual export of wheat from Russia has been about 40 million quarters (8 bushels to a quarter). This year a famine is threatened in that country, insects having destroyed the crop. Were it not for this (to Russia an unfortunate calamity), wheat would most probably be selling in Ontario at 50c. per bushel, and on the western and northern prairies from 20c. to 40c. per bushel. It is feared that many in Russia must starve to death.

How to Keep Apples.

Farmers as a rule keep their apples too warm, which is a decided mistake. They should be kept as near the freezing point as possible. Some contend that a dry cellar is necessary; but this is also a mistake as experience has clearly proved. Men who have been extensive fruit raisers and dealers, handling thousands of barrels every year, say that they find better kept apples in wet cellars than in dry ones. One of them stated that whenever he found a cellar so wet that he had to walk on boards to keep out of the water, he uniformly found well kept apples, provided they had been kept at the proper temperature. That a dry place is not necessary and that dampness is not injurious is demonstrated by the fact that apples which drop in the fall and become concealed and protected by leaves or like matter will be found in a perfect state of preservation late the next spring, provided they have been sheltered from the frost. We all know these apples are better preserved in most cases than those we have kept in our cellars. The old plan of burying them also goes to prove that moisture is not injurious. We have heard from good authority that in Russia apples are packed in tight barrels and then filled with water. Cranberries are thus preserved in this country by some. Thus packed they have been shipped to England. We do not know how apples would answer thus packed and shipped, but the experiment would be worth trying.

Fine saw-dust has also been used in packing fruit for shipping. A layer of two or three inches should be placed in the bottom of the barrel; a tier of fruit is then placed on this, and the saw-dust should fill all openings between the fruit. Each tier is thus packed until within an inch or so of the top, when a thick layer of saw-dust should be put as at the bottom, filling the barrel so full that when the top is put in the contents will be pressed tightly together. In shipping by water and otherwise, care should be taken to maintain the proper temperature. In the ordinary way of shipping many bruised apples will be found, especially at the end where the head was pressed in, and these will ferment unless kept very cool.

A canal boat, having on board farmers' apples, sank in the fall and was frozen in. When it was raised in the spring it was found that the apples, which would not have kept longer than January, in the air, had kept perfectly under water. The controversy concerning damp and dry cellars last fall came to the notice of the noted fruit culturist, A. M. Purdy, of Rochester, N. Y., and in order to pronounce on the theory he made the following experiment:—"Selections were made of the Northern Spy and Yellow Bellflower, carefully handled; each specimen of the latter was wrapped separately in paper and placed in ventilated packages, and stored immediately in the cellar, where, owing to the springy nature of the location, notwithstanding the thorough drainage, during the spring months water will be found on portions of the earth bottom. The result has been that we (July 2) kept samples of the Spy in a good state of preservation; the Bellflower held out well till June 1. Taking into consideration that neither variety is classed among the long-keepers, the latter being what dealers term "holiday fruit," I am fully convinced that by careful and judicious handling, and practicing all the other best known conditions favorable for keeping fruit, dampness, or in other words a wet cellar bottom, is not detrimental to the long keeping of our winter fruit." We all know apples will keep well in a cool, dry cellar, but from the above facts we are led to believe that better results can be obtained where moisture abounds, but in any case we cannot hope for the best results, unless all injured and wormy specimens are removed. From good chemical authority we have gleaned the following receipt for the preservation of fruit.—4 oz. of acid salicylia; ½ lb. of the best sugar; 10 gallons of water. Place the fruit in the solution and seal the vessel. It is said to keep fruit well for 12 months, retaining its full natural aroma. The salicylia acid costs about 40c. per oz.

Our Prize Essays.

A prize of $10 will be given for the best essay replying to the following questions. The award will be made to the person who answers the greatest number of them most correctly and who gives the most information concerning them. This offer is made to any person, whether connected with the institution or not. The essay must be received at the office by the 15th of January, and be sufficiently explicit as to occupy two columns at least. Should it be too long it will be inserted in the following issue or issues.

QUESTIONS ON THE MODEL FARM OR ONTARIO SCHOOL OF AGRICULTURE.

1. Who requested the establishment of this or any institution for similar purposes in Canada? For whose particular individual interest was this institution established?

2. Where was the Model Farm first located, and who was the principal instigator of its removal?

3. What advantages have been obtained by its removal, and what advantages has it lost by its removal?

4. Why was an American chosen as its first Professor? At whose suggestion was he appointed? In what way was he superior to a Canadian? Why is he not there now?

5. Who was the second Professor? Why is he not there now?

6. Who was the first Farm Manager? Who appointed him? Why is he not there now?

7. Who appointed the first Gardener? Why is he not there now?

8. Who appointed the first Principal? Why is he not there now?

9. Is the farm or stock managed as well or better than some Canadian farmers manage their farms or their stock?

10. Do foreigners and professional men know more about the requirements of farmers than the farmers themselves?

11. Why have Americans been allowed to purchase the stock at this Model Farm at one-tenth of its cost to Canadians?

12. How much of the farmers' money has this institution cost to the present time?

13. What has been the highest premium paid by the Government to induce pupils to remain in the institution?

14. Give a summary of the greatest amount of good or evil that this institution has done for the farmers.

About twenty-five acres of sugar beets are reported to have been grown in the vicinity of Belleville, Ont., this year. The result has been very satisfactory. The reported yield is 20 to 30 tons per acre.

Petroleum is an excellent preservative of exposed woodwork and tools. It penetrates the pores, and repays its cost many times over. It is good for all farm buildings, gates, tools and rustic work, and is very cheap.

"The cure of wire worms" implies their entire extirpation. No other remedy can be effectual. They feed on the roots of wheat, rye, oats and grass, sometimes destroying the crop. They are very injurious in gardens. Lime and salt applied to the soil diminish their number, and sometimes free the land entirely from them. Soot, where it can be procured in sufficient quantities, is even more effectual. Fall plowing destroys most of them by exposing them to the rigor of the hard frost. It has been recommended to sow with buckwheat the land infested with wire worms, as a means of starving them out. They will not feed on this plant, and it prevents the growth of such plants as form their food. The first given preventative we have had years' experience of, and proved its efficacy. The other remedies are recommended by practical men. Summer fallowing is also a means of starving them out.

The Month.

The election of Directors of Agricultural Societies will soon be here again. It is well to have these matters well described before the time arrives, and to bring forward the names of those who are most interested in agriculture. Do not select a person because he has wealth and can or does buy his way to an office; nor because he is a good orator or an able politician. Select a person that is a good agriculturist, one that takes a personal interest in raising the best crops or best stock. Such a person has his main interest in conformity with yours, for he knows far better what your requirements are than one whose interest is adverse to yours. An excellent way to judge of the fitness of a person to represent your interest is to enquire what agricultural papers they read. If they take none, either Canadian, American or foreign, you may safely depend that their interests are more devoted to political than agricultural affairs, and the heart of that man is not with agriculture, therefore your interest would be placed second in his consideration. If you are true to your own interest you will request all that ask for your support if they are on your side, which ought to be agriculture. If you vote on this suggestion you will soon have less to complain about. These hints might be fairly considered when you are called upon to vote for any person to fill any office. We should vote openly and directly for every officer that has anything to do with agricultural affairs in any way.

Despite the deficiency in Russia in her wheat crop, many of the European countries have a surplus. Do not be led away by the present high prices and hold for higher. Sell now and let the holder count on his loss. Do not expect the present prices of wheat will be maintained, or you will be disappointed with your calculation. Sow less and keep more stock of all kinds. Stock will build you up; wheat will let you down.

Do not let mice destroy those nice young trees that have cost you so much care and money. Get some arsenic and mix it in corn meal, then place it in a tight box, open at both ends, large enough to let a rat or mouse in. Drain tiles are about the best thing you can get. Put some of these along the fences and some through the orchard and garden, and cover them with a bunch of corn stalks or a bundle of straw. The mice will find a nice house and a store of provisions, and you will have fruit to eat and sell.

Stop that gust of cold air that is still rushing through that opening. It will cost you less than the hay and grain is worth, if in your stables, or the fuel, if in the house, to say nothing about the comfort. There are far too many cattle still to be seen that have not proper protection against the wind, snow and rain storms. This kind of management is followed by those that say they cannot afford to take an agricultural paper. If your wife was under the necessity of splitting wood, or walking over the fields to hunt enough to cook your dinner last harvest, just make up your mind that if you are to thrive you must put a stop to that business. So get up your supply of fuel early and have enough of it.

A correspondent of the Fruit Recorder says his observation, extending over many years, goes to show that dry rot in apples is caused by poverty of the soil or want of moisture at some period of growth. Some apples may be more subject to it than others. The same kind of apples will be affected or free from it according to the situation of the orchard—those planted on deep rich soil are generally free from it, while those on shallow or poor soil are often affected.

Agriculture in Quebec.

It is a common assertion and a common opinion that the land in Quebec is extremely inferior to that of the Province of Ontario. Whether this be true or not is not my present purpose to inquire, but I can safely affirm that the soil in the Province of Quebec is of excellent quality in the average, and yields a fair return when properly and intelligently tilled. In years gone by an exportation of one million bushels of wheat annually was made from the tract of land lying between Montreal and Quebec, on the south shore of the River St. Lawrence. Gradually this exportation fell off until it finally ceased, and importations had to be made, and last season was the first for many years that produced a sufficient quantity of wheat to supply the home consumption. The great drawback to agriculture in the Province of Quebec has been caused by the lack of intelligence, want of enterprise and ambition, and ignorance of the French Canadian farmer. Until lately no efforts, partaking of an educational character, have ever been made. The unambitious contentment and inherent or hereditary laziness of the *habitan* influences him to such a degree that it will be years before any appreciable effects will be seen from these educat onal efforts, and the only practical way he can be taught is to appeal directly to his pocket, and to place him in such a position that unless he exerts himself he will find himself unable to even keep his farm. Whether this can be done or not is another question, and if it be found impracticable then the only hope for the Province is that an influx of intelligent educated farmers can be caused to arise, and then these, with their example and political influence, will greatly improve the condition of agriculture and tend to remove the burden, imposed upon the cities at present, of paying three-fourths of the total taxation of the Province of Quebec. That intelligent farmers do succeed in Lower Canada, is shown by the prosperity and influence of the County of Compton, entirely occupied by good farmers, and which is in a very high state of cultivation.

I have been led to make these remarks from the fact that I have lately seen the report of the Commissioner of Agriculture, and having noted the large sums voted for agricultural purposes, I have felt it my right to examine into the why and wherefore of these grants, and also I am entitled to question the expenditure of these grants in a senseless and wasteful manner, if such prove to be the case. I find that the following sum appears in the report as having been paid to agricultural societies:—$39,792.92, and quarterly grants of $1200 each to the agricultural schools at L'Assomption and St. Anne, and to the St. Francis school, $1,500. Surely we expect and demand that the expenditure of such amounts of money should be attended by good results, and that these results should be very apparent.

Of the agricultural societies little will be said at the present time, and that little is very unfavorable. With the exception of three or four of them they are in the hands of very incapable committess, whose only ambition appears to be to purchase a Clydesdale or Percheron stallion and exhibit it once a year. I propose to speak of the agricultural schools.

St. Anne school had *ten* pupils, of whom five completed their course, and the committee, upon these and similarly small reports, consequentially inform the public that sixty-three per cent. of the pupils, after leaving the school, follow agriculture. This is very satisfactory, and I am glad to learn that *sixty-three* per cent. of ten pupils are still farmers. This per centage, large as it is, will have very little effect upon agriculturists in general, as six pupils a year is not a very large showing for an agricultural school. One bad feature of the teaching of this school is that roots are given but little attention. The rotation of crops is not made sufficiently, and the average of butter mentioned as having been made is mentioned with pride, whereas it is disgracefully small. The grant to this school is almost entirely wasted. In the report I read the following interesting facts:—Speaking of the pupils the committee say, "during their recreation they take pleasure in questioning the Professor and director, and attach great importance to the Professor's lessons; in fine, it may be said that they are very serious pupils." Serious pupils, serious business and a serious Professor thus to have no recreation.

The Richmond school farm is under the management of the director of Richmond College, and has an area of eighty arpents divided into fields of ten arpents each. The rotation of crops followed here is excellent, and it may be said to be much better conducted than either of the schools at L'Assomption or St. Anne. The cows kept are a miserable lot, nearly all grades and poor at that; only seven are kept, and a few pigs, sheep and four horses complete the list. There are exceedingly few pupils, and the whole affair makes a very sorry showing, though it is an improvement on the others. The grant to this school is not, to a proper extent, beneficial.

The school at L'Assomption can not be said to be a "thing of beauty and a joy forever." It has ten pupils, and with these ought to be made profitable, instead of requiring a grant from the Government. *Three* pupils completed their course in the year. There are seventeen cows with Ayrshire crossing, and seen in the winter they presented a dirty, miserable appearance, the quantity of roots fed to them being totally insufficient. The farm comprises 175 arpents, and could easily be made to pasture and winter a far larger number, the great fault of Lower Canadian farmers being that they keep too few cattle, and therefore are obliged to sell the crop of hay or oats, returning nothing to the ground, which therefore rapidly becomes run out. The buildings are wretched and inconvenient, and present an appearance that would be laughable were it not that one can not help thinking of the incompetence displayed. That grants should be given to the three schools, of which the above notes have been given, is not justified by the results, and the remedy is easy to discover, consisting in this:—That only one grant should be given, and that sufficient to properly establish *one* excellent College, and proper agricultural teachers should be secured, teachers who have a practical knowledge of Canadian cattle, and not teachers whose knowledge consists merely of technicalities and analyses (proper and needful in their way); not teachers who can talk glibly of how garden culture is carried on in France or China, but intelligent farmers who can make their practical knowledge known and appreciated by the pupils. It is also necessary that a system of farming should be adopted, to lessen as greatly as possible the disadvantages of our severe winters. Want of space at present prevents me from offering a few of my thoughts on this important subject, and I reserve them for a future occasion.

An agricultural journal is also assisted with a grant of $600, and is published in English and French. More than one half of the French farmers are unable to read or write, and the amount of benefit accruing to them is not, as might be expected, very appreciable. On the other hand, the other half do not and can not understand the articles which the editor sees fit to publish. They are not adapted to the wants of the farmers, the articles being of a scientific character, mainly digests of English agricultural articles and analyses of super-phosphates, which may be interesting to the specialist; but as the farmer does not use these manures and often has never even heard their name, the articles are good for lighting the fire. It is a pity that more and better judgment is not used in the selection of articles, so that those who do read will receive some benefit. That there is also great need of reform in the Council of Agriculture itself, is seen when we know that some of its members have farms which are a disgrace, and which example rather confirms the *habitan* in his bad system of agriculture. There is also need of reform in the system of judging and making awards at exhibitions. It is within my own personal knowledge that awards were made at the exhibition last September that were deplorable, and the conclusion I naturally reached was that the judges had no knowledge of their duties. I conclude by saying that I have no direct or pecuniary interest in agriculture or awards, except to see and feel that the production of the Province is increased.

SAPPHO, a Quebec Subscriber.

Winter gardens for the kitchen or sitting-room may consist of flower pots simply—of soap or any other boxes that happen to be in the cellar or about the premises. It is easy to decorate these with moss, evergreen cones or something of the kind, so as to cover their ugliness. Then sow lettuce and radishes. An azalea, pink, violet, pansy or other plant that thrives in a low temperature, may be introduced to make such little gardens attractive.

Dairy.

Milk Room for Fall and Winter.

BY PROF. L. B. ARNOLD.

The days are now becoming cool and the nights still cooler, and open rooms which have been used during the warm season for setting milk are fast becoming too cool to have the cream rise well in shallow vessels such as the common milk pan. Some place should now be provided that will secure the right temperature for the depth of the vessels used, and where the milk will be free from contamination by contact with impure air. It is customary with many to connect a room for milk during fall and winter with the kitchen, so that warm air from it may enter the milk room by simply opening a door. This is very convenient so far as regulating the temperature and handling the milk are concerned. But there are serious objections to such a room. The air in a cooking room is so much of the time charged with odors of food while cooking that the cream which is rising and exposed to contact with the kitchen air never fails to absorb it and carry it into the butter, to the injury of its keeping and flavor. The butter maker who is breathing the affected air does not detect the flavor in the butter. But others who are breathing pure air do detect something wrong about it, though they do not always know just what ails it. The price of the butter and the reputation of the dairy suffer in consequence.

A place should be somewhere provided in which the air will be pure and the temperature even. These are requisites which it is fatal to omit. Such a room can generally be best arranged in a cellar. It need not be a large room—only just large enough to hold the milk while the cream is rising, for it should not be allowed to contain anything else but the milk. It should be tight and arrangements should be made for easily changing the air in it. All this can be done with a trifling expense and a very little labor by the proprietor of the dairy, if he will only use a little common sense in doing it. But this is where trouble often comes in. It is easy enough to do off a little room in the cellar that will be tight, but the troublesome question is how to ventilate it so as to effect a thorough change of air. It cannot be done, as is often attempted, by opening holes in opposite sides of the room, either at the bottom or top, or with one hole at the bottom and another at the top. If a hole is made at the bottom, the foul air of the cellar will come in if air can escape at the top so as to make room for it. If openings are made at the top, a current of air may come in at one end and go out at the other without changing the air in the bottom of the room at all. The air which has become foul is heavier than pure air, and will keep at the bottom of the room unless it is in some way forced out. This can easily be done in different ways by a little heat, just enough to produce currents. Suppose an adjustable opening to admit pure outside air has been prepared, let a tube enter the bottom of the room and connect with the pipe of a cooking stove in the story above. This tube may be long or short, crooked or straight; it may be made of common stove pipe, or most of its length may be of wood; it may be conducted along the bottom of the cellar where it will be out of the way, or overhead next to the floor, till it reaches a convenient point to connect with the pipe in the room above. It should have dampers or valves which can be easily opened or closed. When there is a fire in the stove above and the pipe and chimney have got hot, opening the dampers in the tube will cause a current of air to hurry through the tube from the bottom of the milk room to the stove pipe that will change the air in the room in a very short time, when the dampers can be closed and the current stopped.

With such a tube opening into the bottom of a large cellar, the foul air of the entire cellar can soon be swept out and its place filled with air as pure as in the rooms above ground.

If such a connection cannot be made, an upright tube, large enough to set in a good-sized lamp, may be connected with the bottom of the room either inside or outside of the room, and made to discharge in any convenient place above. When a lighted lamp is set into such a tube, it will heat the air of the tube enough to create a steady current that will soon cleanse the room of any foul air it may contain, when the lamp may be taken out and the opening closed.

If common milk pans are to be used, a temperature of about sixty degrees is desirable for a milk room, but the temperature may be any degree below sixty if the dairyman will use vessels in which he can adapt the depth of the milk to the degree of cold. This is essential. The temperature and depth of setting may vary as follows:

For 60	degrees set	2½	to	3	inches deep.
" 55	"	" 4	to	5	"
" 50	"	" 6	to	8	"
" 45	"	" 10	to	12	"
" 40	"	" 16	to	18	"

If set deep—12, 16 or 18 inches—the cream will not rise well at 60 degrees; the milk will sour before it is all up It will be equally fatal to set shallow—2, 3 or 4 inches deep—at any low temperature, such as 40 or 45 degrees. The milk will fall to the temperature of the room and become so viscid that the cream will fail to separate completely. But by adapting the depth of the milk to the degree of cold, a perfect creaming can be effected in almost any room, if the air is only pure and the temperature uniform. Such a room can be so quickly and cheaply arranged that every farmer who makes butter in the late fall and winter should not fail to prepare one.

Different Methods of Setting Milk for Cream.

BY H. STEWART.

Formerly milk was put in shallow pans and rarely in deep, earthen jars, and we owe the deep pail system to the Swedish dairymen. With the deep pails, deep, cold spring water tanks or ice closets are required, and where flowing cold spring water can be secured, there this more modern system is very convenient, chiefly because of the economy of room. A 20-quart deep pail is nine inches in diameter; a ten quart pan is 15 inches, and a pool to hold 400 quarts of milk in deep pails may be no larger than four feet long by three feet wide, while to hold 400 quarts in shallow pans would require a trough 60 feet long and 16 inches wide. The advantage is obvious, and for those who use spring houses it is a great economy. with a deep pail the milk of a family cow may be lowered into a well and kept at a regular temperature the whole year, and the milkhouse becomes a very simple affair. The simple deep pool in which the pails are immersed to within two inches of the upper edge, may be built up in bricks laid in cement, or with wall of cement. This may be constructed above a spring so that the water flows in at the bottom and over the top, and escapes by a pipe built into the side; or the pool is supplied by water brought in a pipe from a spring or from a well near by. With a spring there may be a constant flow of water and no ice be required. With well water a supply of ice will be required in the summer, and the house will need to be warmed in the winter.

But great improvements have been recently made in both the deep and shallow setting of milk. One inventor entirely submerged the milk pails under water by means of a peculiar arrangement of the covers of the pails This method effectually seals the pails, and perfectly secures the milk from any contamination whatever from the air. By regulating the temperature of the water with ice the milk may be kept anywhere—in the stable, the kitchen, or the setting-room; and as the water-tank is made non-conducting, the outside temperature has no effect upon that within. This is a very popular method, and is in use in many of the best dairies and creameries. But the use of this method is necessarily confined to those who have a supply of cold water or ice, who have facilities for disposing of the waste water. Many people are prejudiced against deep setting, and in favor of shallow pans, from which the cream can be skimmed in the usual manner. In fact, mankind differ so much in opinions and prejudices that it is impossible to find any one method against which some objection may not be raised, whether it be justly or unjustly. So in setting milk, some will use shallow pans The arguments in favor of this method are chiefly cheapness and convenience. Where one has a very good milk-house or cellar, perhaps nothing else can be preferable to the common pressed tin pans which have rounded corners and are more easily cleaned than any other milk pan in use. But there are very few such milk-houses and cellars, and to adapt the shallow-setting system to every sort of condition, the invention of the Bureau Creamery has been made. This may be kept in a room, or kitchen, or a cellar, as the temperature is regulated by ice kept in a chamber above the milk. The milk pans are inclosed by glazed doors, so that dust and other impurities are excluded. These two contrivances are typical of the two different methods, and although there are several modifications of these apparatuses, I don't know that any one improves upon the original device in any particular.

It has been said that the quantity and quality of the butter produced differ to some extent with the deep or shallow setting of milk. Some persons have disputed vigorously over these claims, and some have made careful tests. But there has been nothing proved in support of any such claim for either system. After a whole year's continuous trial of both of the apparatuses above described, I am unable to perceive any difference in the production of cream or butter either in quantity or quality, and the whole question becomes one of convenience in use. It is very true that one who is expert, from long use and experience of dairy methods, may do as well with one system as with another, just as a good workman never finds fault with his tools; but there are those who need the very best arrangements because they do not perfectly understand the principles of their work. Such persons should use the very best appliance they can procure, and, whichever they may choose, should stick to it without changing and with perseverance; for one who becomes familiar with a certain way of working will always do better, even if it is nothing more than whittling a stick with the left hand. My weekly production of butter never changes, and the quality never varies, when made in the submerged deep pails or the shallow pans; the only difference is that the cream is more solid and is of a deeper yellow in the shallow pans than in the covered pails.—[Ex.

New Process of Making Skim Milk Cheese.

The Hon. E. S. Crapser, who is a very extensive American dairyman, claims to have discovered a new process, whereby the value of skim milk cheese can be greatly increased.

For some time he has been desirous to make an improvement in skim-cheese, which would render it more digestible and consequently more saleable. He says that for two years he has been connected with a scientific, practical man, who had a machine for clarifying rancid butter, "by melting it and running it through this machine with warm milk, creating a new cream, after all impurities had been removed and making new butter of good quality from rancid, poor butter." Believing that if this cream or oil could be added to the skimmed milk, it would produce a better cheese, he commenced experimenting with it. "Meantime we discovered that rancid butter or cheap butter, such as I used to buy for cheese grease at four cents per pound, was fast going out of the market and not available for the use we sought it for. A new substitute must be found or the process was a failure. So we bought a keg of pure leaf lard, manufactured for family use, and manufactured cream the same as from butter and commenced the experiment, which has been going on for the last three or four months. I call it an experiment, as it has not an established, fixed standard. It promises to enable us to produce a skim cheese that will be saleable and increase the value of skim

cheese fully two cents per pound on present quotations, viz.: skim cheese now worth six cents, if made by this new process, would be worth eight cents.

No ingredients are used, except skim milk and from one to one and one-half pounds of pure leaf lard to each 100 pounds of milk. There is an entirely new process used in connection with this valuable scientific machine.

Now, I have given you an outline of the use of pure leaf lard in making skim cheese. I will add a statement showing results: 100 pounds of new fresh milk yields four pounds of butter and eighty pounds of pure sweet skim milk; to that skim milk add one and one-half pounds of lard, and it produces eight pounds cheese, which, at eight cents, amounts to 64c.; without adding lard, it produces 6½ pounds cheese at 6c., 39c.; add cost of lard, say 14c.; total, 53c., difference in skim milk by new process, 11c.; thereby making the value of 80 pounds of skim milk worth 11 cents more by using the new process than it would by using the old methods, besides producing a quality of cheese that will be readily bought; and I think exporters, after they come to know them, will buy them readily for a medium grade of cheese on their merits.

I sincerely believe that within two years this valuable invention will put hundreds of thousands of dollars in the pockets of the dairymen who use it. I expect to pay the patrons of my creameries of the season of 1881 at least 10 cents per 100 pounds more for milk than can be realized by any other known process. I have the milk of from four to five thousand cows, patrons of my several creameries. At the estimate I have made this would realize to my patrons direct ten to twelve thousand dollars that is now wasted."

Mr. Crapser invites all dairymen to visit his factory, where he will show them the machinery used, the materials and the cheese. He has no concealments to make, and is entirely open in his statements. The process is certainly worthy of investigation.—[American Dairyman.

Winter Feeding.

There is no doubt that it is highly detrimental to the milk yield of a herd for the cows to feed upon grass after it has become thoroughly frost-bitten. Such grass is also liable to become impacted in the cow's stomach and prove dangerous, if not fatal, to her. It is a prolific source of indigestion, and such pasture should be avoided if possible. This is the time to call upon the late-sown fodder that should have been cut before a severe frost touched it, and properly shocked. We say shocked, for it cannot be safely housed, there being such a quantity of water in it there is no possibility of drying it all out, so that in large masses it is sure to heat and mould. For winter feeding, hay is the universal diet, and if it be cut in just the nick of time, while in its bloom, and the weather has been favorable for a perfect curing, there are few substitutes for hay, but as against the average cured hay commend us to corn fodder, if it is cut while there is a fair proportion of green in the blade. If this fodder is cut in less than inch lengths, wet, and mixed with shorts or a mixture of corn meal and bran, there is no better winter feed for a liberal production of milk. We have never seen a cow that did not do well on it. Cows undoubtedly do better on mixed feed than when they are fed French fashion, each article separate or in courses. We are here treating only of cows in milk. Dry cows and springing heifers may be wintered on hay fodder or straw and turnips, provided they receive nourishment to keep in good condition; but dry cows in winter, when prices for dairy products are at their height, should not be tolerated. Let your cows be fresh and give them a generous diet, with plenty of heat forming meal, and good warm stables, then the milk and butter account will be sure to balance on the right side. We are glad to learn that high winter feeding is becoming more popular with farmers, and we are anxious to encourage the movement, because we believe it will be more money in the pocket than carrying a lot of dry cows and strippers through, to bring them in all together with a flood of milk just when dairy products are seeking their lowest level. Have a comfortable place to milk. If the water can have the chill taken off of it before the cows are allowed to drink, it will be a great saving of feed and an increase in the supply of milk, though it is rarely practical to do this. A good-sized fresh cow can stand from 6 to 8 quarts of corn meal a day in mid-winter.

Agriculture.

Covering the Soil.

BY C. HARLAN.

When green crops are raised to improve the land, it is not indespensible that they should be plowed in to accomplish this object. You need not turn them in, till you are under the necessity of doing it, to prepare the ground for a future crop. But if the greendressing should be Hungarian millet, or white mustard or anything that might seed the ground at an improper time, you can either plow it in or cut it down when in blossom, and it will improve the soil in proportion to its ability to shelter it.

Cuthbert W. Johnson says:

"An English farmer inadvertently left for some months a door in his fallow field; for several years after, the crops were particularly luxuriant where the door had been lying, so much so that one would have said that some rich manure had been applied to that spot."

Anderson, an eminent Scotch writer, says, in his Economy of Manures:

"Every practical farmer knows, or ought to know, for the facts are constantly before his observation, that land can be made exceedingly fertile without manure. He must have noticed that if any portion of the soil has been covered, either accidentally or designedly for sometime, by water, stone, plank, logs, chips, brush, rails, corn stalks, straw, buildings of every description, with hay or straw ricks, leaves or clover, and in fact, that under any and every substance which has covered its surface closely, it, the surface soil, invariably becomes exceedingly fertile, and that the degree of this fertility is totally independent of the covering substance."

After reading these remarkable statements of Johnson and Anderson, both men of extensive observation and intelligence, we can more fully credit the experiments of Gurney in England, upon his fields of grass.

Green grass covered with straw gave him in one month 6,870 pounds per acre. The same kind of grass uncovered produced but 2,207 pounds. No rain fell during this experiment. Another plot gave in one month, when covered, 3,460 pounds per acre. While the rival lot not covered, yielded but 970 pounds. Clover that was covered grew six inches, while that uncovered grew but one inch and a half.

And where a certain quantity of stall dung would double the crop of grass, the mulch spread on top of the manure would increase the crop six times. He used about one ton and a half of straw per acre.

"Boussingault found, upon comparing water obtained by melting two portions of snow, one taken immediately as it fell upon a stone terrace and the other (from the same fall) after it had lain for 36 hours upon the soil of a contiguous garden, that the second contained ten times as much ammonia as the other. It is well known that snow has a most beneficial effect upon soils, and amongst other causes, Boussingault believes that it may act in preventing ammoniacal emanations from the soil."

Now we can believe there is much truth in the old proverb, that "Snow is the poor man's manure."

Not having straw, nor any barn-yard material, to top dress his wheat, he has often noticed that his crop was much better when kind nature covered it for him.

Does not this investigation of the great chemist reveal to us one, if not more, of the deep and far reaching causes why mulching is so beneficial to the land?

Prof. Johnson says:

"The ammonia of the soil is constantly in motion or suffering change, and does not accumulate to any great extent In summer the soil daily absorbs ammonia from the air, receives it by rains and dews, or acquires it by the decay of vegetable and animal matter. Daily, too, ammonia wastes from the soil by volatilization, accompanying the vapor of water which almost unceasingly escapes into the atmosphere."

This is a revelation of scientific truth, which cannot be misunderstood or explained away. Was ever a stern necessity to do anything more clearly demonstrated to the world? We must keep the soil covered, to promote and retain its richness. But how often do we strip the ground naked, and there bake it in the ever-burning sun!

Col. Waring of Ogden Farm, says: "I had read so much about top-dressing that it was determined to try it on this apparently forlorn hope, and the land was well covered before the heavy rains that fell early in May. The result was almost magical, while that portion which had looked so promising as to seem not to need manure, did not yield 1,000 pounds per acre of poor hay, ox eye daisy and red sorrel; this poorer part, solely as an effect of the top-dressing, produced fully 4,000 pounds per acre of very fair hay."

Township Exhibitions.

If a person wishes to erect a substantial building the first essential is a good firm solid foundation. If our Legislators desire to benefit the farmers their first business should be to know what the requirements of the farmers are. There is a vast difference between the gigantic manufacturer and the importer or breeder of fancy stock and the recipient of public moneys. Some of these may be capitalists, others may be using capital belonging to other persons, and some may be mere beggars that own nothing, but may be able to talk, write or argue on any subject, or for any purpose that will return most money to them. We have heard many of this class express their desire to have township shows abandoned and county exhibitions or united counties exhibitions to be established, and to take away all support from the township exhibitions. The benefits accruing would be enabling the union exhibitions to give a large prize list. This would encourage the breeder, importer and manufacturer. It would save much time to the large exhibitors, who now claim that there are too many exhibitions.

We understand that a great change is contemplated at the next session of Parliament, and that it is expected to carry out the plans above mentioned. We deem it our duty to our supporters to enter our protest against any such procedure, and trust the following will have due consideration from Hon. O. Mowat. We believe that gentleman, although not a farmer, will not disregard the opinions of the plain, hard-working farmers of Canada. We believe that gentleman, when rightly informed, will endeavor to act for our interests, and to legislate so as to insure the greatest good to the greatest number.

We now give you an illustration of Delaware Township Agricultural Exhibition. Our artist has, of necessity, altered the exact position of the grounds to enable him to show as much as possible. Delaware is the smallest Township in the County of Middlesex. Nearly one-third of this small township is owned by Indians. The village is in one corner of it. The best agricultural exhibition that has been held in Canada this year was held in London—only 12 miles distant. Caradoc, a large township close by, held their township exhibition but a few days previous, and Westminster, a township lying between Delaware and London, held their own exhibition. Strathroy, only 12 miles distant, had a fine exhibition. Delaware held its show the last of any in the County, and despite these many disadvantages this exhibition was a grand success. The display in all the departments, good as they were, could not compare with the quantity to be seen at the Western Fair, although some of the exhibits were equal in quality. The ladies' work, fruit, grain and dairy products were exhibited in the Town Hall; the vegetables, stock and implements were not under cover. The great crowning success of this, and of all the township exhibitions we have seen, was the large proportion of women and children. The farmer, if he deserves that high appelation, has something to exhibit at his own exhibition. He wishes to give the children a holiday. The good wife wants to see what Mrs. A's butter looks like, or Miss B's quilt, or Mrs. C's flowers, or John's colt, or Jem's

calf, or Jane's Dorkings, or George's corn. The fact is, that nearly every person with the smallest amount of energy was to be seen at this exhibition. Several were there from other townships. The merry remarks that dropped from the little boys and girls when examining and comparing the different products, clearly demonstrated the good these exhibitions are doing to those who will be the farmers of the future. The neighbors exchange ideas, the ladies have a holiday and take as much interest in the exhibition as the men and children do, and the honor of gaining a 50c prize is as much felt and often more appreciated than $50 at the large exhibitions.

We contend that these township exhibitions, when properly managed, do quite as much good, perhaps more good in proportion to the public money they receive as the large exhibitions do. Township exhibitions are confined to agricultural encouragement. The large exhibitions sometimes descend from the high positions they should aim to occupy, and for the sake of pomp, display and pleasure, devote perhaps too much of their attention and funds to the attendance of some po litica personage who may know nothing about the farmer or his requirements. Sometimes a large crowd may be drawn to see a hurdle race, a baloon ascension, or an immense secret society procession. These outside attractions may and do draw together a large concourse of sight-seers, among whom there may be only a very small percentage that know or care a pin about anything pertaining to agriculture. We noticed this carelessness and ignorance about agriculture most particularly when in Montreal. Very few could tell the difference between a Merino and a Cotswold sheep, or between rye and wheat, or between a horse-rake and a seed drill. Inhabitants of cities or large manufacturing towns are apt to spend more on cheap excursions than farmers do. The real plain practical farmer seldom goes far to see an exhibition. It is too costly. He requires his wife to enjoy the pleasures with him, and she must have the children with her. At the township exhibitions they can all attend, and nearly all do. The proportion of ladies to be seen at the large exhibitions is very small, and the children are in still greater minority. At the township exhibition the children are seen in far greater proportion. Education begins in infancy, therefore we are in favor of maintaintaining the township exhibitions. We do not wish to disparage the numerous attractions at the large exhibitions, but we wish to show to those who have power, and who wish to increase their influence and receipts, that we do not think it should be done at the sacrifice of, or injury to, the plain farmer and his township exhibition.

The success of an agricultural exhibition depends greatly on the executive ability of the directors, and the honesty of their intentions. Sometimes parties have been in power who have not acted quite fairly toward smaller exhibitions, or have used their power to favor friends, or spleen to injure others. Where such a course has been pursued dissatisfaction has arisen, bitter feeling been engendered, and exhibitions have not been popular, and failures have been the result.

After the prizes were awarded and the books returned to the Secretary, the list of prizes was read to the public from the balcony of the hotel, a large number of the exhibitors and visitors listening attentively. When the Secretary had finished reading the list, your humble servant, desiring to know the opinion of the farmers in regard to the abandonment of township exhibitions and the establishment of county or union exhibitions, laid the case before them as fairly as we could, without commenting on the advantages or disadvantages of either the present or proposed plan, and asked them which they would be in favor of, namely: the maintenance of township exhibitions, or uniting and forming a united county exhibition. On calling for a show of hands, all that were held up were for the maintenance of township exhibitions, and not one for uniting. We presume from this that if the farmers are allowed to vote on this question, by far the largest number would prefer maintaining the township shows. There may be some townships where uniting might be advantageous, but any steps taken to deprive any township from the right of holding its own exhibition should never be granted without the consent of a majority of the farmers in the township, and all such subjects should be put to the vote. The farmers' voice should be heard and regarded more than it yet has been.

Should the advocates of a change, or the promoters of any improvement in our public or private agricultural affairs, desire their opinions or plans to be known and discussed, we can find space in this journal for anything that is for the benefit of the farmer. Every well-wisher of the farmer would prefer and court discussion and publicity to any and every good measure suggested or contemplated.

VIEW OF THE DELAWARE TOWNSHIP AGRICULTURAL EXHIBITION.

Process of Preserving Cheese—Milk Tests.

In its report of the British Dairy Farmers' Association Fair, the London Agricultural Gazette says that a remrrkable invention is illustrated by the Dutch Gouda and English Stilton cheeses, exhibited by Mr. A. P. Van de Water, of Haarlem. These cheeses, without any envelope or covering of any kind, have been to India and back again, a rind impervious to mites or to molds having been formed by a most simple and inexpensive process of preserving, this consisting in a repeated dipping of the cheese, no matter whether new, or partly devoured by mites, in a chemical solution. It is affirmed that no injury of any kind is caused to the quality or flavor of the cneese, and some of the specimens shown were pickled no less than four years ago, and have remained in the open air ever since. In the milking competition at the above dairy show, the first prize Shorthorn cow, Daisy, gave, in two milkings in 24 hours, 48½ lbs. weight of milk of a very high quality, which latter merit carried the first prize. The second prize Shorthorn cow, yielded a greater quantity—namely, 50⅓ lbs. of milk, but of a quality somewhat below that of the other, thus lowering her to the second place. The first prize Dutch cow gave 40½ lbs. of milk of good quality: and the second prize Dutch cow 43⅓ lbs. of a lower quality. The first prize Ayrshire gave 25¼ lbs. of milk, and the best Jersey 40¼ lbs of milk. The rich quality of the Jerseys and Guernseys was so superior as to require a second analysis before the comparative merits of he competing cows could be determined.

Prof. Roberts tells us that 50 bushels of wood ashes per acre increased the yield of grass more than any other manure; ground bone improved the clover.

Experiments of Germination.

Prof. W. R. Lazenby gives the following in the report of the Cornell Experiment Station for 1879-80:

Small quantities of the different vegetable seeds were obtained from the leading seedsmen of Canada and the U. S. Similar seeds obtained from ordinary town stores, together with some of our own raising, were also experimented with. One method of testing the seed was by planting a carefully noted number of each of the different sorts in small flower pots. Another way was to place the seeds in a small earthen saucer, keeping them moist by placing the small saucer in a larger one partially filled with water. This latter proved the most satisfactory. The results of this comparative test showed that the seeds obtained from the seedsmen named above were nearly all sound, and it would be difficult to say that the seeds of one were better than those of the others. The seeds that were picked up about town were many of them unsound—only about 60 per cent. germinated.

The unsoundness of seeds is often due to unripeness. Such seeds when sown may germinate, but they produce feeble, sickly and imperfect plants. Some early peas and sweet corn that had been gathered green were planted in the garden last year. Planted at the same time, and treated as far as possible in the same manner, were some similar seeds that had been fully ripened. The contrast was marked; not only did the unripened seed germinate more slowly, but the young plants were unthrifty and feeble from the start. They matured much later, and the product was very inferior, both in quantity and quality, to that obtained from the ripened seeds.

Some peas, each of which was affected by the pea-weevil, or in that condition usually termed "buggy," were planted and compared with a similar number of sound ones. Not over 15 per cent. of the affected peas germinated, despite the almost universal belief that "buggy" peas will grow as well as others. Of the sound peas over 90 per cent. made a good growth.

During the winter an experiment was conducted to test the effect of certain compounds on the germination of seeds. Some vegetable seeds were kept at an average temperature of 65 degrees F., moist with pure water, iodine water, bromine water, chlorine water and camphor water. The effects were carefully noted. The results, though variable, were very interesting. Certain seeds moistened with pure water would germinate in 48 to 60 hours; moistened with bromine water, they germinate in 36 to 40 hours, while iodine water caused some of them to germinate in less than 30 hours. That chlorine and camphorated waters were also quite stimulative, would appear from the fact that seeds which contained but little nourishment in themselves were harmed instead of benefited by the application.

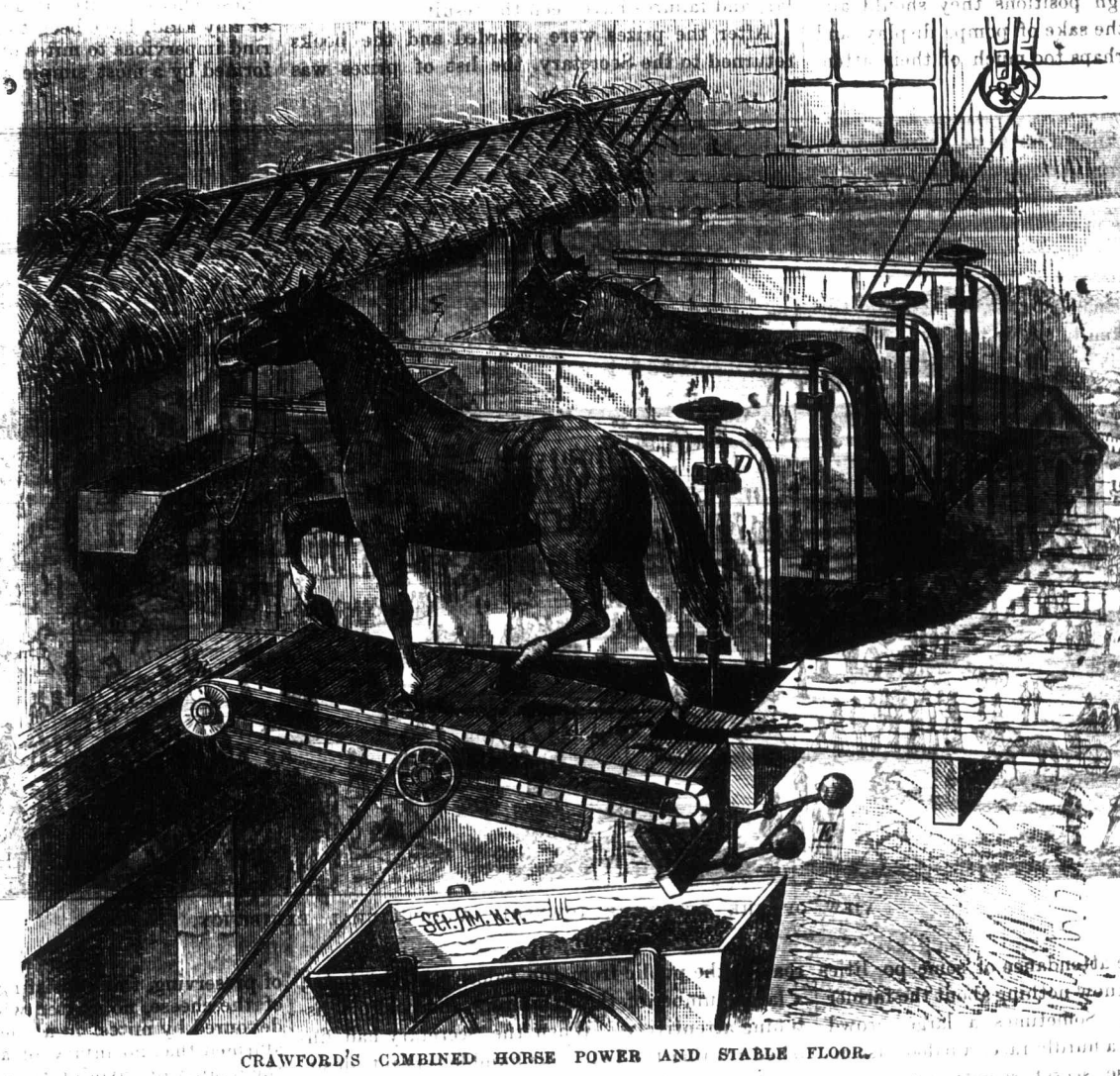
From these facts we can readily learn the great need of buying all our seeds from reliable seedsmen in preference to the general stores.

Combined Horse Power and Stable Floor.

The annexed engraving represents a device which enables a horse to clean his own stable, cut his own feed, run a small thrasher, fanning mill, corn sheller, or corn mill, churn, saw or pump. It is always ready, and can be instantly brought into action. It is adapted for a colt or horse, and may be worked by a bull or cow. It is always stored, and forms an elastic, well-ventilated stable floor, which permits of the ready escape of liquid manure and is self-cleaning.

The engraving conveys a very perfect idea of the invention, a portion of the stable being broken away to show the construction of the parts below the floor level.

The upright frame of the stable is constructed in the usual way. The floor of the stable has an opening of the full size of the stall. In this opening is placed an endless floor, A, composed of transverse slats and endless belts or chains supported by rollers, B C, which are journaled in a frame supported by a central pivot and capable of being inclined, as shown in the engraving, by means of a screw, D, which extends above the stall partition, and is provided with a wheel by which it may be turned.



CRAWFORD'S COMBINED HORSE POWER AND STABLE FLOOR.

A brush or broom is pressed against the under surface of the endless floor by counterweights, E, and serves to clean the slats as the floor is revolved in the operation of cleaning the stall.

The roller, B, carries a pulley which communicates with a pulley on a centrally located shaft from which power is taken for any purpose. When it becomes necessary to clean the stall all that is required is to release the shaft so that it may revolve, and to incline the stall floor, the manure is delivered to the cart below, and the floor is quickly and thoroughly cleaned.

The inventor suggests the use of this power for driving dynamo machines for electric lighting when the employment of engines or other powers would render it either inconvenient or impossible.

This device affords a ready means of exercising horses without removing them from the stable, and it admits of using younger horses than can be used in other horse powers. It is stated that it effects a cure of "docked ankles" and knee spring.

The applications of this useful invention will be apparent without further explanation.

Further particulars may be obtained by addressing A. Herbert Crawford, patentee, Liverpool, N. Y., U. S. A.

Canadian Apple Trade.

A Hamilton merchant has given some interesting items of the Canadian apple trade with England. There is, he says, a brisk demand for them, and the buyers prefer a medium apple to any other. Our climate and soil are especially adapted to grow them in the greatest perfection. The greatest obstacle the shippers and commissioners have to contend with is the carelessness, and something worse careless, packing of the fruit. It is a great pity to the country to prevent the credit too often given to the United States for superior Canadian apples, all barrels, he says, should be distinctly and indelibly branded Canadian. For this year's shipment of 900 barrels of apples he nets a profit of about $1,000, having purchased at $1.25 per barrel and sold at $4; expenses, $1.60 per barrel. The demand continues excellent and prices are well maintained, notwithstanding the vast quantities imported. A large portion of the fine apples now in the English market and ticketed American are, says The Colonies and India, imported from Canada. It is only lately that proprietors of orchards in Canada have given so much attention to the export trade of fruit, yet the quality of the apples grown in Ontario is inferior to none on either side of the Atlantic.

A correspondent of the London Times, commenting on the quality of American bacon, says that it cannot compare with the best Irish, Wiltshire or Yorkshire, but that it is improving in this respect. He thinks that if the hogs were finished off with a daily meal of barley instead of all corn, the bacon would be firmer and less liable to shrink when cooked. He might have added that it would be better mixed, a quality of which it is very deficient.

The Ontario Agricultural Commission.

This Commission has been appointed by the Government, and many able men have been selected as members. They have now closed their labors for the year, which appeared to consist in travelling to different parts of the country and examining every person they choose to elicit what information they desired. We are informed that a vast amount has been obtained, and that we are to have this in printed form.

We heard at the time the Commission was appointed that it was for the purpose of helping the Provincial Board of Agriculture out of the difficulties which beset it, but for the benefit of agriculture we think it to be regretted that this Commission was not composed of men who were in no way connected with it. But there were persons who are connected with the Board of Agriculture placed on the Commission. This course, no doubt, tended to shield the Board, and at the same time to weaken the power of the Commission to investigate and report independently, as they otherwise would be inclined to do.

It has been well known for some years that our Agriculture and Arts Association has not given satisfaction to exhibitors, nor have their exhibitions been a success in other respects, while other exhibitions which do not receive Government grants have been highly successful. What is the reason of this? It is clearly mismanagement, and it is high time some steps were taken to repair this evil, which is an exceedingly costly one to the country, swallowing up $10,000 yearly of public money. And what does it give in return? A poorly conducted exhibition, which is a source of real complaint and discouragement to exhibitors. Such being the condition of what should be our foremost and pattern exhibition, it was of the greatest importance that the Agricultural Commission should have made it a particular subject of inquiry, and should not have ceased their labors until the damaging elements were removed from all that pertains to our Agriculture and Arts Association, no branch of which is on a firm foundation, not even our herd-books, which are held in discredit by breeders everywhere. In the Commission were practical and honorable farmers, who thoroughly understand all these matters, and who could so remedy existing evils as to make our Association a benefit instead of a detriment. But for some reason they have not given it any attention, and the people have a right to know why. We have no doubt that a strong committee could have been selected from among the Commissioners, who would have been more competent to deal with the existing evils than our Local Legislature can be, for the simple reason that several of the Commissioners are experienced in the different branches of farming, stock raising and fruit-culture, and consequently know the farmers' requirements better than a lot of professional men can. The evils in our herd books must be remedied by experienced breeders.

The information regarding stock, crops, fruit, trees, bees, etc., etc., has been so fully treated on by special writers in the ADVOCATE, that a careful compilation from the fifteen volumes might be found to contain most of the important information that has yet come to light from the researches made by the Commission; and a vast deal of highly valuable information is contained in those volumes that has not been and will not be reproduced unless compiled from issues of the ADVOCATE. They contain the tests and most of the heart and pith of what must constitute information about our agricultural prosperity. What the farmers of Canada require, and what they should have, is more information as to whether the sums of money granted for agricultural purposes are really expended for the benefit of the farmer.

It would be well if every farmer was informed, and every farmer should ascertain something about the history of everything belonging to his special avocation, as the following:

1. In what manner was the Provincial Agricultural and Arts Association established, and what difficulties beset its inauguration?

2. When did it attain its zenith of usefulness and power?

3. When did it begin to decline, and what were the causes of its decline?

4. Can the Association be restored to its former prestige of honor, utility and prosperity, and if so, in what way can this be accomplished?

5. Would it be for the best interest of the farmers that the Provincial Exhibition should be permanently located in one locality, or should it perambulate; if so, where should it go to, or should the institution be abolished?

Conditions of Cranberry Culture.

First, within easy access of a good sand-hill; second, a meadow with a peat bottom; third, perfect control of the water, with sufficient quantities to flow the land at any season of the year. Land with these conditions, when once properly set with good cranberry vines, will produce large crops many years with but little expense, except harvesting.

To prepare the land for a crop of cranberries the sod should be removed from four to six inches in depth. September and October are good months to remove the sod, as the weather is growing cooler and the water is usually lower at this season. The work can be done better than in hot weather or when the water is high; in fact the ditches for drainage can always be dug in the autumn, when the water is low, better than any any other time.

In removing the sod, care should be taken to leave the surface as level as possible, so that when the water is let on, all portions of the meadow will be covered to the same depth. This is important, for if the water is let on in the summer to kill the curculio, it is desirable to have the vines covered to the same depth of water; and if the water is let on in the spring or autumn, to prevent frost, unless the land is level some places will be covered too deep, while others may not be covered at all, and if not level, it will require more water, and a longer time to let it on and draw it off. A little extra time in making the land a water level is time spent to good advantage.

The sand can be best applied in the winter when the meadow is frozen, and the farmer is not busy. The top of the soil should never be allowed to mix with the sand, but care should be taken not to apply any but the sand that is below the grass and weed seeds. By using this precaution much time will be saved in weeding the vines, the first and second year after set. The sand should be applied from three to four inches in depth.

Those who intend to set vines in the spring should lose no time in looking around to select the best varieties; this can never be done so well at any other time as it can when the fruit is on the vines; then not only the quality of the fruit but the bearing qualities of the vines can be readily seen. The latter is very important, for there are some varieties of good fruit that are shy bearers, producing rarely more than half a peck of fruit to the rod, while other varieties frequently produce from three to four bushels.

The mistake that is usually made in setting vines is, to set them in regular rows several feet apart. The inexperienced may think it renders cultivation easier; but it very much increases the labor. If the vines be set all over the ground, leaving no space more than six inches square, the labor of weeding the first year may not be less; but if the vines do well, the labor the second year is very light, compared to what must be done to those set in rows; for the ground gets so well covered with vines that they choke out all the weeds and grass, while those set in rows do not cover the ground all over for several years, thus enabling the weeds to grow, unless kept out by hand pulling. The hoe cannot be used on account of interfering with the running vines. Another disadvantage of setting in rows is, that so much ground is exposed to the sun that it frequently heats so hot that the ends of the growing vines are killed; but when the vines are scattered all over the ground, it keeps it cooler, and thus protects the tender vines from being scorched in the hottest weather.

May is the best month for setting the plants. If the water can be controlled it should be raised very near the top of the sand, so as to make it soft enough to press the vines in with the fingers. The water should be kept near the surface until the vines begin to grow, when it may be drawn a foot below. The weeds and grass should be kept entirely out the first and second year. If care has been taken to cover with sand free from weed seeds, there will be but little labor required to keep the crop perfectly clean. A small crop of fruit may be expected the second year, and the third year nearly an average crop; but a very large crop should not be expected until the fourth year.

The vines do much better if they can be kept covered with water during freezing weather; it is also best to keep the water near the surface during the entire month of May, so that when a frosty night comes it can be readily raised high enough to cover the vines, and thus protect them from the frost. The fruit also needs protection from the frost in the autumn.

Hand picking should always be practiced when it is desired to have the fruit keep well. Gathering with a rake injures the keeping qualities of the fruit very much, and reduces its market value as much as it costs to pick it by hand. Good cranberries well ripened and carefully picked, will keep better than the best of winter apples; but poor varieties gathered with a rake must be sold and used at once, or some one will meet with a loss.—Ex.

Fertilizers.

There is no doubt whatever that salt on many soils and for many crops is a valuable fertilizer. It will not always prove beneficial, nor will any other kind of a fertilizer. In Europe the value of salt as a fertilizer has been carefully tested by experiment for a number of years. Prof. J. F. W. Johnston, says: "It is certain that common salt has in very many cases been advantageous to the growing crop." He then quotes the results of experiments in which wheat dressed with salt gave an average of eight bushels more than the same kind of soil produces without salt; barley gave an increase of twenty-one bushels an acre, and hay one ton increase to the acre. The experiments of John Hannan, of England, as detailed in an essay on manures, for which he received a prize of fifty pounds, show a large increase by the use of salt in the acreage production of barley and oats, and a moderate increase in the yield of wheat.

In 1864, S. B. Lawes, of Rothamstead, read a paper before the agricultural council, to show that salt had particularly no influence on his farm in increasing or diminishing the production of either straw, grain or wheat. In the discussion which followed, a number of persons spoke, and all in opposition to the views of Mr. Lawes. Mr. Hooker gave the result of some exepriments with respect to the influence of salt on wheat, in which he showed that one portion of his wheat field dressed with four hundred weight of salt gave thirty bushels of wheat to the acre, of good quality, while the balance of the field, without salt, gave twenty bushels to the acre of second quality.

W. C. Fish, of Onondaga county, N. Y., says: "Becoming nearly discouraged in trying to raise spring wheat, I began four years ago with sowing salt. The first year three bushels were scattered on the ground, just as the wheat was fairly up and the ground dry. Twenty-five bushels per acre was the first year's yield. The second year four bushels of salt were sown, and twenty-nine bushels of plump wheat were raised to the acre. The third experiment was four bushels of salt and thirty of wheat to the acre. For the past summer in Onondaga county the thermometer has marked eighty degrees and upward for thirty-eight days, fifteen of which were over ninety degrees; and it was a scorching time for spring grain. For the last trial I drilled, on six acres of corn stubble ground, one and three-fourths bushels of wheat and sowed six busheis of salt broadcast, to the acre. A strip was left without any salt, which was very light; on this ground the dew dried off quicker and the wheat headed out two days later, with the straw darker colored and badly crinked down."—*Western Rural.*

Stock.

Editor Breeders' Journal:

You have advocated the Cotswold as the best mutton sheep. Will you please give the reasons for your belief? There seems to be more rival claims about the merits of sheep for mutton than any other question.

Yours respectfully, A. H.

In reply to the above query we would state: That the Cotswold is an early maturing sheep, and the most profitable sheep that is bred. In America the pure bred sheep must be used mainly in its crosses upon other sheep; and the basis for this cross-bred sheep is the Merino more or less pure. The demand that is springing up in this country from England, demands something approaching a fair or good mutton. The three purest breeds of the English sheep are the Cotswold, the Leicester and the Southdown. The latter for quality of mutton excells all others; but they are light shearers and comparatively of light carcass. The Leicesters are good feeders and fair shearers but are not so hardy. The Cotswolds are hardy, great shearers, quick feeders, and early maturing. Crossing them upon good roomy American Merinos their produce is almost equal to the thoroughbred in quality and size, and at the present time the fleece is in demand at prices beyond the Merino or pure bred Cotswold. They will go to market under liberal keep at eighteen months old, weighing from 150 to 200 pounds live weight, and at this age will command nearly the top of the market from the butcher in our best markets. There is none of our mutton breeds that will feed out at an early age with so much profit. It is this quality that has made the Cotswolds so popular in this country.

Most of the English Downs have been made up from the Cotswold and Southdown, and no other breeds have such fixed character and none that carry that character on their produce when crossed with other breeds as will these two breeds.

We find the above in the Breeders' Live-Stock Journal, and knowing the editor, Mr. F. L. Miller, to be a man of long and extensive experience, we publish it, as his views have considerable weight in breeding circles. While we in Canada have not many large flocks of Merinos, our average sheep, speaking of them as a class, excel any others in America. In most cases they are Leicester or Leicester grades, and to cross these with the Cotswolds will produce a large, strong, early-maturing sheep, with an abundance of wool of a long fibre, which is not necessarily coarse if care is taken in mating animals. But this knowledge, viz., the science of breeding, is one in which the Canadian farmers are very deficient and equally careless. While we believe the Cotswolds are the best of all the longwool sheep of the present day, we still believe that in cases where Canadian farmers own large coarse ewes, either Cotswold or Leicester grades, they will receive a better profit by using a Shropshire ram. We believe this cross would produce a very suitable sheep for the English market.

Management of the Stallion.

The condition of the stallion for the next season's business will depend largely upon the manner in which he is kept from now until the season commences. It is a period of rest, but it should not be a season of pampered and overfed indolence, as is too often the case. When it is convenient to do so, the very best possible treatment that can be resorted to during this period is to put the stallion at light work. If a draft horse that has been—as they all ought to be—broken to work, let him be driven moderately alongside of a quiet mare or gelding, and worked regularly up to the 1st of February, and fed enough grain to keep him strong and healthy, but not fat. Oats will be a much better food for him than corn; but if it is found that he is becoming too thin, or if the work is comparatively heavy, corn may be used part of the time with good results. If the stallion is a trotter or a roadster, by all means drive him on the road. If you can use him regularly as a business horse, so much the better, and, as in the case of the draft stallion, feed him enough to keep him strong and healthy, and work him right along, as though you intended that he should earn his living. This we are satisfied from experience is the best treatment for stallions of any breed, and will result, not only in bringing the horse to the begining of the next season in better condition than any other; but the probabilities are that a horse so treated will get more and better foals than one that is not worked during this period.

But in very many cases, and especially in large breeding establishments, and with thoroughbred stallions, the course recommended above is practically out of the question. The next best thing, then, if the horse must perforce remain in comparative idleness during the period mentioned is, to provide him with a large paddock—the larger the better always—and let him have the run of it at all times during pleasant weather, stabling him only at nights and during storms; and when kept under these conditions, it will be best to dispense almost entirely with grain food of all kinds. The main reliance in most cases must be good hay; but when it can be had, we very greatly prefer corn fodder, as it furnishes a complete change of diet from what the horse has been accustomed to—a complete change that will prove highly beneficial to the general health of the horse. It reconstructs him, as it were, and makes a new horse of him, after a few months of such treatment, and is certainly the next best thing to the run at grass. But while he is kept on this food due attention must be paid to his bowels, lest he should become constipated—a condition that can usually be prevented, or remedied, should it occur, by the use of an occasional bran mash.—Ex.

Suffolk Horses.

Mr. Geo. Turner, of Kent, England, in a recent article which appeared in the National Live Stock Journal, spoke as follows of the French, Suffolk and Clydesdale horses:—

The Suffolk breed of horses is the outcome of the dry climate and purely agricultural soil of the Eastern Counties—the district in which they have been bred from a time which is anterior to our agricultural records. As agricultural horses they are useful anywhere; but the breed is not likely to extend itself, because its merits are eclipsed by other breeds, directly it is taken off the soil on to town stones.

The Suffolk horse has an excellent middle-piece, but not the deep, powerful quarters, the flat-boned legs, and the large, sound, tough feet which town buyers in this country will have at any price. That is the whole matter in a nutshell. I am inclined to think that long, silken hair on the legs, and big, sound, tough feet, go together, and that they cannot, or have not been produced separately on cart-horses, up to the present time. That is to say, presuming the hair on the legs and the horn on the feet to be the natural result of one and the same cause, then the Suffolk and the French horses are equally out of the running, so far as these desiderata are concerned. We think the Suffolks soft, but the french horses are thought to be much more so, and their use in this country is entirely dependent on their comparatively low cost. No one here would buy French horses, for any purpose, unless he could get two for about the same money as one home-bred one would cost. They come over here as beefy as bullocks, and last but a short time unless they are kept strictly upon the land. The Suffolk horses are as smart walkers as the French horses, and are as good for all agricultural purposes. More than that, they are not here, in England, considered to be so soft. Then why not give them a trial, if that stamp of horses suits American requirements?

For my own part, bearing in mind the nature of the market here in England for draft-horses, I should discard everything in the shape of a cart-horse that could not show good feet and legs. Must a draft horse have the feet that will stand the same severe strain which a heavy horse, drawing a heavy load on stoned streets, obviously entails? If not, then buy the Suffolks. It must not be supposed that all Suffolks have thin, shelly feet; they all have the round formation of bone below the knee; and the smallness of arm muscle in proportion to the weight of their carcasses—more or less—which, to me, is very objectionable; but have not the French breeds the same defects? I like big arms, big, flat knees, clean hocks, flat bones below the knee, and big, tough, solid feet, and wide, deep, muscular quarters; but they are not to be found in France any more than in Suffolk. The Suffolk Agricultural Association has for some time adopted very stringent rules as to soundness; they have a rule that no animal in any of the horse classes can take a prize at their meetings unless it has been passed by a duly qualified veterinary surgeon; and this rule has resulted in a great improvement in the feet of show horses; so much so, that when the society met at Beccles, some few years ago, one of the leading veterinarians in England said that he had not found a single case of sidebone out of more than thirty prize winning animals that day. With regard to action the Suffolk is a walking horse rather than a trotter. And this reminds me that, so far from our big, heavy, Shire-bred horses being "clumsy," as the Journal seems to intimate, it takes a particularly active man to keep up with a good one, in any of his paces; they get over a lot of ground in a very short time, I assure you. But, as I have already said, if clean-legged, medium-sized agricultural horses are wanted, give the Suffolks a trial.

From Mr. Turner's remarks, it will be clearly seen that the Clydesdale and Shire-bred horses are the favorites in England for sound reasons.

Feeding for the Best Results.

[Abstract of a speech delivered by Prof. Sheldon at the late dairy show, held under the auspices of the Irish Agricultural Society at Dublin, Ireland.]

As most farmers are aware, there is a great difference in the quality and quantity of milk that is produced by different breeds of cows, and a somewhat smaller one by different cows of the same breed; and it is no less true that different kinds of food and treatment have a distinct influence on the quality, but especially on the quantity of milk, as they also have on the health and condition of the cows. It may be laid down as a general statement that natural grass of good quality, grown in a genial climate and on good old pasture land, produces the best butter so long as the grass is fresh and young. Artificial grasses and clover are also well adapted for butter-making, but these are better for soiling than pasturing, unless on very sound land. Soiling economizes the grass and saves the land from treading by the cows. Well harvested hay made from grass of this description, if the grass is cut a little under ripe, is the best food for producing butter of good quality and flavor in winter, but it may be improved for this purpose by different kinds of meal. Hay may, in a sense, be called artificial food, because it is fed to cows in an artificial state and under artificial conditions.

The feeding and treatment of cattle is a most important question. If all farmers could be made to realize the simple fact—so simple that it is commonly lost sight of—that whatever milk or beef is produced must be produced wholly from the food that the animals eat, a great change in the treatment of cattle would spread over the face of the country. Not a morsel of beef and not a drop of milk are produced without food; not a movement of a limb can be made, and not a breath can be drawn by any animal that is not compensated for in food. If the cows travel two miles or one mile to pasture, or if they are hurried, or abused, or frightened, all is paid for by food. With regard to dairy cows, it must be borne in mind that they have first of all to live before they can produce any milk at all from the food they eat, and about two-thirds of their food goes to keep them in fair condition before any milk can be made from it. This has been tested and proved over and over again. Some farmers seem to think that they can, with impunity, keep their cows on "short allowance" during the winter, and that they will pick up in the spring and milk as well as ever; but this is a great mistake, for a poverty-stricken cow must first of all supply the wants of her system and get back into decent condition before she can possibly give rich milk and plenty of it, and many cows for months, in the summer, do not fully recover from a winter's starving; some never get over it at all.

For the production of milk, grass of good quality is the most nearly perfect food which cows eat. In the winter it is as well to prepare the food so that it may be easily digested and assimilated, taking grass as the standard of perfection in this respect. In cold weather, tepid water increases the flow of milk. It must always be borne in mind that improper food will affect the flavor and quality of the butter. Food that has a strong odor, as some kinds of herbs and turnips, will give its flavor to the butter, passing through the cow's system; the flavor—whether it may be pleasant or unpleasant—re-appears in the milk and butter.

Feeding and Breeding.

In order to produce good stock very much more attention than is generally supposed has been paid to feeding by those who have had best results. The *Drovers' Journal* has this very pertinent discussion of this matter :

The very many different breeds of thoroughbred stock which we now have, adding so many thousands of dollars to the material wealth of the country, are the direct results of, first, generous feeding, and, second, of systematic breeding. There are scores of persons, even beeeders themselves, who give breeding the first place when it should merely have a secondary one, for breeding, viewed in its proper light, has done but little towards the improvement (we use the word advisedly) of live stock. With feeding, however, it is not so, for generous and systematic feeding is what really develops, fosters, and improves all the good which happens to be innate. How have those particular breeds of cattle, horses, etc., been produced for especial purpose, except by generous feeding seconded by proper attention to hygienic laws? This is the impulse which has developed the desired qualities, whether it has been for flesh, size, endurance, milk, form, or other peculiarity. This is as far as feeding alone can go, and breeding steps in to continue or perpetuate the improvements gained by feeding. Are not those animals, then, selected for breeding stock which, under the system of feeding bestowed, have shown the greatest tendency to development in desirable qualities? The offspring of these are naturally good animals, for the simple reason that their parents were well cared for, though they will soon return to first principles if neglected.

Feeding improves the desirab'e qualities of live stock of all kinds, while breeding merely perpetuates or continues this improvement gained from good food and proper attention, each succeeding generation giving us animals with increased tendency or disposition to answer quickly to systematic feeding and care. Those who have really improved the quality of their stock, whether pure-bred or not, are able to appreciate fully the force of our argument, which may be distasteful to others.

Shorthorns for Beef and Milk.

The Agricultural Gazette, Eng., in a review of all the different breeds of cattle in Great Britain and the Channel Islands, estimates the cows and heifers at 2,250,000. After glancing at the 20 different breeds, the Gazette comes to the following conclusion: "It is the great merit of the Shorthorn that it holds the foremost rank in both classes. The exceptional aptitude of the cows of this breed to lay on flesh whenever, whether by accident, or by age, they have become no longer adapted for the dairy, is a very great addition in the eyes of the dairy-farmer to their merit as mere milk producers." In consequence of this, Shorthorn cattle, which early in the century only occupied a few narrow districts in England, have now spread over the whole country wherever moderately good pastures abound.

American breeders have always had the good sense to take the same view on this question as the English; but in the Western States they have hitherto paid more attention to the meat than to the dairy qualities of their Shorthors. In this point, however, a salutary change seems to be taking place, for Mr. Allen, in his circular for the next volume (the 20th) of the American Shorthorn Herd book, has asked for accounts to be sent to him for publication, of the weekly, monthly and annual yields of milk and butter obtained from single cows, or from an entire herd.

To what Age will Cows Breed.—Prof. Fleming says that cows have been known to breed after they were twenty years old ; but the most remarkable case that we are now able to recall, is that of the short-horn cow Cherry by Waterloo (2816); bred by Mr. John Stephenson, of Wolviston, Eng. This cow was calved Dec. 20, 1821, dropped her first calf Jan. 16, 1825, and continued to breed regularly every year up to Feb. 1840, when she dropped her 16th calf, being then in her 19th year. Another very remarkable case was that of Red Rose by Windsor (698). This cow was calved in 1812, and produced 16 calves ; the last birth being twin heifers, dropped when she was 15 years old. There are several instances on record of cows breeding up to the 15th, 16th, and 17th year ; but these are, of course, exceptional, the great majority of cows ceasing to breed before they are twelve years old.

Farmers' Clubs.

Winter affords to farmers the desirable opportunity of meeting together that they may communicate to one another their experience in their business during the past season, and hold counsel together of the present state and future prospects of agriculture. This is a most seasonable time for the meetings of farmers and for the reviving of any clubs that may have become inactive. Farmers, as much as people of any other profession or calling, are greatly benefited by the frequent meeting of such clubs, and discussing some important agricultural topic each time of meeting. Every available means for disseminating useful knowledge, especially information on agricultural improvement, should be employed. Let the hours spent in the club be occupied with discussions relating to the farm, farm life and such subjects as tend to make the farmer's position one of more independence and prosperous. We purpose to glean from time to time from the reports of farmers' clubs.

Influence of Food Upon Stock.

[Extracts from Report of the Deer Park Farmers' Club]

A member said, "Without food of good quality the best animals from the purest strains deteriorate and become unshapely. Many years ago one of the first Durham Bulls was introduced into this country. The food and care he received were so different from that to which he had been accustomed that his stock fell into disrepute. There must be increased care, and a better quality and abundance of food to keep up the standard character of improved stock."

Another. "Believe in good feeding if you would have good stock. First they must have good grass. Young stock should be fed on bran and oats, particularly oats, which makes muscle. To fatten cattle corn is best, but for growing cattle oats are better."

A member said, "You can feed to fatten, for milk, or for muscle. A milk cow should not be fed as you would a fattening steer. It is an admitted fact that corn will fatten, but it does not make milk. Bran is better for that purpose. The practice among dairy people of feeding slop encourages disease."

Another. "For butter yellow corn meal is better than anything else. It makes butter of better color than white meal. In the vicinity of New York thousands of barrels of swill are fed to cows every day. It makes an immense quantity of milk, but does not add to the health of the animal, or the quality of the butter."

Elmira Farmers' Club—Experiment with Coal Ashes.

An experiment made last year with five waggon loads of coal ashes on twenty square rods of ground may be cited as an instance of beneficial mechanical effect. The amount of ashes was about 200 bushels, that is to say, ten bushels to the rod. They were drawn on late in fall, the ground having been recently plowed. In the spring the ground was plowed again, thus mixing the ashes with the soil. It was then planted with garden stuffs. All the plants made more growth than in the previous year, when the ground, after being liberally manured, was planted to the same crops. But the favorable change was not attributed to manurial properties in the coal ashes. Before their application the soil was compact and heavy, a fault that the ashes corrected, and without doubt this was practically the sole effect.

Epizootic in a Boy's Eye.—This is but another instance of men being infected with disease from their farm stock. Epizootic diseases, as well as glanders, and many others, are contagious:—

Elmira, N. Y., Nov. 15.—A lad named Fred Palmer lost an eye from epizootic poisining, and his other eye is also endangered. He wiped his face with a handkerchief he had used to clean off some spittle that his horse had coughed on his coat sleeve.

This disease, as well as others to which the horse is liable, may often be traced to want of proper treatment. Proper care of live stock is remunerative in more ways than we give it credit for.

The Apiary.

Bee Keeping.

BY CHAS. F. DODD, NILE, ONT.

Bee-keeping used to be a very crude affair. It was carried on with log gums, and box hives, inside of which everything was fastly fixed and all a realm of mystery. The bees were left pretty much to themselves, until the close of the honey season, when they were brutally smothered with brimstone fumes; and the colony being thus exterminated, its stores were appropriated to the use and luxury of the owner. Now we have the movable frame hive, which gives the bee-keeper access to the interior of the colony, perfect control over it and liberty to take the surplus honey without killing the bees. With this form of hive the loss of swarms by their going off to the woods can be prevented, queens can be given to stocks that become destitute of them, and weak colonies can be strengthened by giving them comb, bees or honey.

Bee-keeping well deserves a place among the lesser industries of the farm. As it is wise to keep poultry to pick up the waste grain and stray seeds, so it is wise to keep bees to gather the nectar of clover, orchard blossoms and wild flowers that would otherwise go to waste. The chief trouble with beginners is that they will not go to the slight expense and small trouble necessary to get informed on the subject. They buy a hive of bees, about which they know nothing, except that bees can sting, and that their honey is nice, and then leave it to take care of itself. It is needless to say that this is a very foolish course to adopt. What wonder that only failure and loss are the result; it would be the same in sheep-raising, dairying, or any other line of farming. While, therefore, we advise the farmer to make bee-keeping one of many lines of industrial pursuit, we qualify the advice by urging that it be by no means entered into without seeking information in regard to it. This can easily be obtained from books on agriculture, and from good agricultural journals.

HONEY REPORT FOR CANADA.

Facts and figures from all parts of the country, indicate that the entire crop of honey for 1880 is but one-half of the usual supply.

The San Francisco Commercial Herald says: "During the past year or two an important industry has sprung up in this State in the way of preserving potatoes for a foreign market. A machine has been invented for pressing and preserving potatoes in such a manner that they may be dried and kept for a number of years in any climate. No oxidization, or fermentation takes place in the process; they retain, to a great extent, their natural taste and original freshness. Shippings made in England during tho past year by Falkner, Bell & Co., have attracted attention, and the demand for California preserved potatoes in that country already exceeds the supply. The first shipment to Liverpool brought the sum of $160 per ton over all expense of shipment. Last year about twenty tons were shipped from San Francisco, which brought forty-five English shillings per hundred weight, or at the rate of $8 per sack for green potatoes. At Arcata, Humboldt county, a strong company has been organized to preserve potatoes by the new process. Ventura has an apparatus is working order, and will handle a large quantity of potatoes this fall. San Francisco merchants and capitalists evince a lively interest in the enterprise and are watching results closely. The testimony of English merchants is to the effect that the products are superior and in active demand."

Sherbrook Plowmen's Association held their first plowing match this fall, which has proved to be a success. The President, Vice-President and Secretary were re-elected for the ensuing year.

Stock Notes.

Mr. Richard Gibson, of Ilderton, has returned from England, bringing with him ten Shorthorns of the Bates family.

Mr. John Adams has purchased a herd of Jerseys, which he intends to breed on his farm on Scugog Island.

Alex. McCallum, of Wallacetown, Ont., has purchased a Berkshire boar from A. A. McArthur, Balmoral Farm, Lobo, Ont.

Josiah Woods, Esq., of Sackville, is probably the most successful beef producer in New Brunswick. He sells 125 head of fat cattle annually.

Mr. T. J. Megibben, of Kentucky, was elected President of the National Shorthorn Breeders' Association, at the late meeting at La Fayette, Ind.

From March 1st to September, the Chicago packers have slaughtered and salted 2,012,000 hogs, against 1,261,000 for the same period last year.

The great Chicago Fat Stock Show closed on the 20th of November. In some respects it was a success. In our next issue we will give a report of its proceedings.

At a recent British sale of Norfolk and Suffolk Red Polled cattle, cows and heifers brought from $80 to $190, and one choice bull $1,026—an extraordinary price for a polled bull.

Green Brothers, Oakville, have purchased the Short-horn bull calf Cavalier (91), of John Dryden, Esq., M. P. P. He was got by Royal Brampton, out of Columbia.

Mr. Robt. Reesor, of Silver Spring, Manitoba, has been very successful in taking nearly one hundred prizes for short-horn cattle at the fall fairs this fall, which amounted to several hundred dollars.

Mr. E. B. Morgan, of Oshawa, sent, the first week in November, 265 cattle to England, the second week, 115; the next week, 125, and the last week, 175. It is reported there is a probability of Mr. Morgan joining with the big cattle syndicate of Toronto.

Mr. J. S. Armstrong, of Eramosa, Ont., has recently sold 3 very fine fat cattle, which are to be shipped to the English market. They weighed respectively, 2,800, 2,300 and 1,850 lbs. Mr. Murdoch, of Pilkington, also sold two to the same shippers, which weighed 1,700 and 2,200, respectively. Each of these gentlemen received 9 cents per pound live weight for their animals.

Mr. John Jackson, of Abbington, Ont., bought, this fall, 4 very fine Southdown ewes, which were bred by the Prince of Wales. Mr. J. was very successful this fall at the fairs, carrying off some important prizes at the Provincial Fair, including the diploma for best pair of Southdowns. He also exhibited at several other shows, competing in all for 33 first prizes, and succeeded in taking 31.

Mr. McAllister's second annual sale of thoroughbred stock took place 22nd October, at Stony Mountain, Manitoba, and was very successful, upwards of $2,000 being realized. Ths Durham thoroughbreds brought an average price per head of $125. The grade cattle sold at from $35 to $45 each. Bidding was lively from noon until the close of the sale at five p. m. A number of sheep were also sold and brought from $15 to $20 each. Among the principal purchasers were Mr. E. B. Edis, warden of Springfield, and his brother.

TRANSMISSION OF TUBERCULOSIS BY MILK AND MEAT.—In a recent communication to the French Academy, M. Pench stated that he had fed young pigs and rabbits with milk from a tuberculous cow, and observed the effect. The case of the rabbits seems decisive. There were three of them, all of one litter; two were fed with the diseased milk, the third with good milk; one of the two former succumbed, and the other was killed after some time, and both showed tuberculous granulations, &c. The third rabbit, on examination, showed nothing of the kind. In the case of the pigs similarly treated, all three were found affected, but it is thought a dish that had been used for diseased milk had sometimes been used also for good milk to the third pig.—[Boston Journal of Chemistry.

Fence or no Fence.

BY HENRY IVES, N. Y.

We have a just and good law in this State prohibiting any person letting any kind of farm stock run at large in the highways. It is a just law, for with it one has not got to be at the trouble and expense of fencing the road wholly for other people, and need not do so unless he so chooses for his own convenience; and we find it a good law, for it gives general satisfaction to all concerned. If you have not such a law in your Province, I should strongly recommend one similar to ours as of great advantage to farmers and the public generally, and I will state how I have found it to work with us.

Now, as the fence question is attracting so much attention, and many are showing by argument and by practice that they can not only get along without fences, but are better off without them than with them, I will state my experience in going without road fences, on an argument in favor of abolishing them in this State, wherever the necessity of a fence is only for a barrier against intruding animals, or for fencing out instead of in. For a number of years our State laws have not required us to fence the public roads; provisions were also made that no cattle or farm stocck should be allowed to run at large in the roads. But as farmers have always been obliged to keep up good road fencing to protect their growing crops, they can hardly trust them now to grow without fencing, although nothing is allowed on the road that would molest them. About eight years ago I found it necessary to renew a long strip of road fence. It was quite desirable to do considerable cleaning up and grading to make a good fence bottom, which would necessarily take some time; so after many misgivings for so exposing a garden, wheat and other farm crops bordering on the road, I removed this fence, thinking to replace it again as soon as possible. But the crops receiving no damage by exposure to the road, and other work coming on, I only did the grading occasionally as time permitted me, and taking a year to put it in readiness, got it seeded down. Meantime no crops were molested, growing along the border of the highway for want of a fence; so I let it stand the same the next year; and it has stood until now without any fencing and without any apparent need of one, although this is the main road for travel through the State.

I obtained confidence by doing so well, and I have since removed eighty rods of another fence along the same highway, and after tilling and planting the border of the road where it stood, so as to thoroughly subdue it, and also for the sake of tilling for one year two rows of trees planted along the side of the road, I have now seeded it to grass, and the trees make a much nicer boundary between my farm lots and the highway than any other kind of fence or hedge would, except it is a wire fence, which does not obstruct the landscape view or the drifting snow which will often accumulate along any other fence, so as to interfere, more or less, with public travel.

In planting these two rows of trees along the border of the road I placed the inside row on the boundary line, and intend after a few years, if I should want a fence there, to use the trees as living posts to staple wires to, for a wire fence, which I think will work quite practical by letting the wires play loose in the staples, and by drawing out the staple once in a year or two, to prevent the tree overgrowing. I consider it very desirable, both for land owners and the public, to have such trees growing along the public highway. And now, with the protection and encouragement which our State laws give us, they can be put growing there with much less risk and expense than formerly, for one can till the roadside with any hoed crop for a year or two in getting them started, and he can plant small trees if he chooses without staking them to protect them as formerly from loose cattle, so that this planting of trees can be done as cheap and safely as planting his orchard of fruit trees. Now, as the result of many years experience in farming with and without road fences, I can say positively that my garden and farm crops were disturbed more when the law allowed cattle to run at large on the highway, and I was doing what I could to fence against them, than since their ranging the roads was prohibited. I have thrown open my road gates and taken away road fences. The reason of this seeming anomaly is that while the road cattle were allowed to run at large they would often steal in or break in, causing much damage to crops, although the farmer used every precaution to guard against it; but now without road fencing or road cattle either, the crops are not disturbed. Another practical reason for abolishing road fencing, especially those along north and south roads in this northern country, is that they cause the snow to drift in and fill them, so as to obstruct or entirely stop travel on them, when those obliged to go through them will open the fences and go through the fields, causing much damage and inconvenience, which would be avoided by abolishing these road fences.

Celery for Winter Use.

It is well known that stalks of celery stood in spring water under a shed, where not likely to be frozen, will become perfectly white and tender. But it is only a few persons who can have the spring water at hand for this use.

We have known celery to be perfectly blanched and preserved by packing the roots in wet earth and keeping them in the cellar. Large boxes were obtained and a few inches thick of earth placed on the bottom and made as wet as possible. The plants were then packed upright, side by side as close as they could stand, until the boxes were full. The upper leaves were of course exposed, and attempting to grow a little by the encouragement given to the roots by the wet earth, caused growth enough to blanch the whole. There is an advantage in this, over keeping it in the cellar as many do, where it retains its greenness all winter, and is scarcely fit to eat.—[Ex.

W. H. S. asks how to color butter, so as not to look brown, as his always does, when colored with annatto, first mixed with melted butter, next strained and allowed to cool, and then mixed with the newly made butter.

ANS.—The better way is to use the annatto in the cream, and then during the process of churning, it becomes perfectly incorporated with the mass and gives an even shade throughout the butter without any trouble. A simple recipe for cutting the annatto for this purpose is as follows: Dissolve a half pound of concentrated potash in five quarts of water, by heating and stirring. Pour off the lye from the sediment, add one pound of the best annatto and dissolve it. Boil gently for twenty-five minutes, by placing the mixture in a kettle surronnded by water, so as to prevent scorching or burning. Then let the mixture settle; rack it off, and strain through a fine cloth and bottle for use. By measuring the quantity of cream and the proportion of annatto for the desired shade, a uniform color for different churnings may be obtained. When the annatto is cut by an alkali like potash, the coloring sometimes gives a slightly reddish tinge to the butter, while it is claimed that annatto prepared in the following manner produces a golden hue: Take two ounces of the best basket annatto and dissolve it in a quart of soft, cold, water. It should be shaken well in order that the annatto may be thoroughly dissolved; then strain the liquid through a cloth, and add one teacupful of any good dairy salt, and put the liquid in a bottle for use. To make a golden yellow, one teaspoonful of the liquid to six quarts of cream at the commencement of churning.

It is said by those who have tried it, that bran is as good as the best commercial fertilizer for potatoes and corn, and much cheaper.

PRIZE ESSAY.

Fall and Winter Management of Colts

The perfect maturity of the horse depends much on the treatment he receives during the first year of life. A well-sired foal, nursed by a poorly fed and over-worked dam during the first 4 or 5 months of its existence, cannot possibly develop into a perfect horse, having been deprived of a full supply of proper nutriment in the early stage of its growth. Much may be done, however, to repair the damage by generous treatment during weaning, in early fall and subsequently during the winter and summer following.

Assuming the foal to have been properly nursed during the first 4 months of its life, it should by all means be weaned on green food of a sound and nutritious quality, to which may be added a small feed of cracked oats and wheat bran mixed in equal proportions, of which mixture he may have from 2 to 4 quarts per day, according to size and breed—a heavy Clyde foal requiring much more than one of racing stock.

Having been well weaned by 1st of November, the foal should be housed at night in a loose box, roomy and well lighted and ventilated, also well littered with good clean wheat straw (all the better if coarsely cut with a straw-cutter). This should be his home at night, and during all wet and cold stormy weather during the day, but every hour of sunshine he should have liberty to leave his box, and have free access to an open yard large enough to allow him the free use of his legs without being compelled to circle round like a circus horse. All young animals in high health love to gambol, and to none is it more essential than the foal during his first year; it develops his muscles, deepens his inspirations, expands his chest and gives him an appetite which should now be satisfied with liberal rations of bruised oats, wheat bran, a few roots, as carrots, swede turnips, mangolds, &c., with well-cured hay, a good intermixture of clover, and timothy cut while its full nutritive qualities are in a soluble state. With regard to rations, I shall not not define quantities, as these must vary with the size and breed of the foal, but merely insist that the diet be highly nutritive and varied, without being too fattening, that it should contain the elements of bone and muscle rather than fat, that the foal be allowed all he will eat without waste, and that he get plenty of good clean water. This treatment should continue to the middle of the following May, or even to 1st of June, if grass is sloppy and ground wet, after which good sound pasture is all that is required till the following November, when take him into stall or box and treat same as previous winter. Be sure to allow a full ration of good food during the second winter. By 1st of June following you have a two-year-old colt, and you have done all for him that can reasonably be done, and if there is no deficiency of breed or constitution you have laid the foundation of a good horse, and if kindly and gently treated during the past, he will now be as perfect in size and form as nature intended he should be, and will amply repay in after years for the care and expense bestowed on them two first years of his life. T.H , Meaford, Ont.

To enjoy palatable and wholesome vegetables during the winter months, proper care and attention are just as essential in storing as in cultivation. Roots and vegetables, as they are often promiscuously thrown in heaps about the cellar, soon lose their freshness and flavor. Most of our house cellars are too warm for the best preservation of vegetables, and it is therefore advisable to store only a limited quantity for immediate use in the house, while the main stock should be kept in a cool barn, cellar, or in an out-door pit.

Peter Henderson, states in the Gardener's Monthly that he has discovered that mulching roses in pots to force flowers for the holidays, in January last, with common moss mixed with a good portion of bone dust, say one part bone dust to thirty of moss, has a wonderful effect in bringing forth early roses. In two weeks after the mulch was first applied a change was clearly to be seen, and by the end of May the plants had attained from four to six feet in height, "and though they had bloomed profusely during a period of nearly six months, were in the most perfect health and vigor." All other plants on which the mulch had been tried showed marked benefits.

Poultry.

Farmers and Poultry.

BY R. A. BROWN.

Of late years there has been a great deal of talk about hard times among farmers. Wheat has been low, and a great many have been obliged to sell when it was below a dollar per bushel. This year, in many vicinities, the spring wheat has failed altogether, and peas are injured to such an alarming extent that farmers are loth to sow any. Last year cheese and butter were below cost of production. In some sections the farmers have devoted nearly their whole farms to the cultivation of fall wheat. If this crop fails, which it may do, much of the farmers' income for the year is gone.

The moral to be drawn here is, Do not put all your eggs in one basket. Variety in farming pays better than specialty.

It would be better for them to have more sources from which to derive an income. We would suggest for one of those branches their attention to the profits of poultry rearing.

Sufficient poultry might be kept on every farm, without interfering with other branches of farm industry, to produce an annual income of from two to four hundred dollars. But in order to realize such an income from poultry, it is necessary that many improvements be made on the usual method practiced among farmers. Therefore, I would recommend the following:—Give them better care than is customary among farmers; do not allow them to roost up in lofts, or on poles in the shed, or up in some apple trees, or to crawl in the pig pen or under the barn to get protection from the winter's cold; do not allow them to forage entirely for a living, getting an uncertain meal once a day, by darting into the feed boxes when the horses are fed, or risking life when the voracious pigs are fed, or flying into the barn or granary by the score every time the door is opened.

One of the most profitable, yet the most neglected, stock on the average farms of Ontario is the poultry; such neglect renders them the least remunerative. Success depends on the care bestowed. It must be borne in mind that fowls, like every other kind of live stock, will not pay with neglect, inattention, or parsimonious treatment. To make poultry pay requires also good judgment. Poultry will pay, and that at the rate of 400 per cent.

A hen worth 25 cents, if properly fed and attended to, will pay for her food in eggs for the year, and produce $1 worth besides for her owner's profit. With the exception of bees, there is no stock living that will pay for its food and a profit four times the worth of itself annually. In many instances this has been exceeded by returning $2 profit. The care and attention are very easy and light, requiring but a small amount of manual labor, so it is often carried on by women or children.

Our beloved Queen carries on successfully a poultry department at Osborne, which she superintends herself, and takes great interest in it. The fowls are carefully selected, and are taken great care of by Her Majesty. Her sales for the half year were $105; expenses, $20 for food and $20 for fresh blood, leaving a profit of $65, besides a plentiful supply of eggs and chickens for use, and this only a small yard, too.

Some say, don't pay any of the fancy prices or you will never see your money again. I claim that pure blood pays, whether in horses, hogs or poultry. The first thoroughbred fowl that I bought was a light Brahma cock that cost me $5. You would call that a fancy price, but that bird paid me thrice over.

The necessary requirements for success are a good dry and warm poultry house, good solid and substantial food, clean, pure and fresh water, every day, with a change of diet as regular as man would be inclined to ask for himself. In winter when they cannot get grass to feed on, nature must be supplied with either apples, potatoes, turnips, cabbage, onions, or any vegetable, as green food; also have within reach old mortar, sand, or fine gravel, to grind their food with.

Hens are the most profitable of all poultry, ducks next, geese next, and turkeys least.

To properly accommodate hens 10x15 feet should be given to every fifty birds, and more if it can be spared. Their apartments should be cleaned often—once a week at least. Many farmers think it imperatively necessary to clean their horse stables every day, yet do not think of cleaning their poultry house once in six months. It is but little trouble to take care of poultry when the proper conveniences are provided. A hundred head may be fed and watered, and their house cleaned, in the time it would take to tend a pair of horses. We do not see why every farmer may not add hundreds of dollars to his credit this way as honorably as if selling wheat.

WATER FOR FOWLS IN WINTER.

Good, large-sized troughs should be provided for watering fowls at this time of year, and fresh filled twice every day during winter, when the birds cannot get it handy. It is utter cruelty to keep fowls of any kind and not supply their natural wants when it can be done in a few minutes. I have known parties to have ducks die off in whole flocks during winter for the want of water to drink. Those parties gave their fowls all the feed they wanted, and to spare. It was given on the frozen snow, where the poor fowls would nibble away at their food with feet drawn up in their feathers to keep them off the cold ice. They got as light as if they were all feathers, and finally they starved to death amid plenty, and the farmer wondered why they were not fat. Turkeys and hens should have access to water at all times, as well as geese and ducks, clean, pure and fresh. If there are some old bits of iron left in their trough, all the better; or water them in some old iron pot. Iron will be found a valuable acquisition, especially during moulting season, and on into winter months. Milk is also valuable, either sweet or sour; poultry devour it readily, and it is essential in the production of muscle or eggs. Where it can be spared it is more valuable to poultry than to any other stock. If farmers would give it a fair trial, and lay aside the fogy notions of their ancestors, and look at things in a right light, they would abandon the practice of feeding their spare milk to pigs, and give it to a better paying stock.

During the cold storms, and the morning after, sprinkle a little red pepper in their food and water. If they are scoured in any way, put a little lump of alum in their drinking vessel, which is highly recommended by all poulterers; also season their food with salt as a baker would his bread. If those requirements are attended to, you will find it paying, and save your stock from many ills that poultry are heir to.

Gravel for Fowls.

Fowls swallow their food, broken or not, and it enters the crop or first stomach, and remains in it until it has become softened, more or less, when a small quantity at a time, just as grain runs into a grist-mill, is forced into the gizzard among the gravelstones. This gizzard is a strong muscular stomach, and plays night and day, when there is a grist to grind, similar to bellows, contracting and expanding, thus forcing the gravelstones into the grain and breaking it to fragments, and triturating the whole mass, after which it is in a suitable condition to be quickly digested.

From these facts will be seen the necessity of providing fowls with gravel during the winter.

For storing onions, there is no better place than a dry, cool and airy loft, where they can be spread out thinly, and often looked over for the removal of those which may have begun to decay. Warmth and moisture are fatal to the keeping of onions, and much handling is almost equally so.

From the London Daily Telegraph we learn, that at the Earl of Bective's recent great sale of Shorthorns, fine prices were realized. Fifty-five cows and heifers brought $47,375, or an average of $861; and sixteen bulls brought $7,795, an average of $519. As high as $10,000 was paid for a single animal.

The scales which fly off from iron being worked at forges, iron trimming, filings, or other ferruginous material, if worked into the soil about fruit trees, or the more minute particles spread thinly on the lawn, mixed with the earth of flower beds or in pots, are most valuable to the peach and pear, and, in fact, supply necessary ingredients to the soil. For colored flowers they heighten the bloom and increase the brilliancy of white or nearly white flowers of all the rose family."

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

Apples in Odd and Even Years.

A correspondent writes: "Can you tell us the cause of the fruitfulness of our orchards in even years and their barenness in odd years? If this apple blessing could be more evenly distributed with the years, I should consider it almost doubled in value. Has not our mode of cultivation something to do with this alternate fruitfulness and barrenness? Why, in fruitful years, are the apples so large and fair, and when only a few are to be found on the trees why then are these few so knotty and wormy? The whole thing is a mystery to me, and if you can throw any light on these questions you will oblige many young orchardists besides your humble servant. "H. C."

There is nothing abnormal about alternate fruitfulness and barrenness. This alternation is as natural as the alternate seasons of day and night. By an abundant production the energies of the tree, and possibly the fruitfulness of the soil, are exhausted, and require a season of rest. It is simply a case of reaction. That this is the true explanation of it seems more reasonable from the fact that the varieties which are most subject to the alteration are the most productive in the fruitful years. Thus, the Baldwin is such an abundant bearer when it produces at all that it has been called "the glutter of the market," but every other year is a time of rest—with this variety, while the Rhode Island Greening is very apt to produce more or less each year. The Early Strawberry yields its thousands of delicious little apples one year, but seldom is seen on the trees the next season. If our friend wishes to know why the even year is fruitful and the odd barren, he asks too much.

Our correspondent seems to take it for granted that even years are fruitful and odd years barren, and this seems to be the general impression, and is doubtless true to a large extent, but not to such a degree as is commonly supposed. We have many trees that are productive in the odd years and barren in the even, and we know many large orchards that have the fixed habit of bearing in the odd years. We have some trees, the sides of which are productive in alternate years, one-half the tree bearing in the even year and the other half in the odd, so that the principal of alternation seems fixed, and the cause of it obvious. How long the habit of production in the even years has been observed we have no means of knowing, but it certainly seems to be more common in the latter part of this century than it was in the first half.

As to why apples are "large and fair in fruitful years, and knotty and wormy when there are only a few," we see nothing very mysterious. We doubt whether he is correct in supposing that the fruit is larger in years of abundance. If a tree bears very profusely, the apples are generally fair, but are frequently of a medium, if not an inferior size. The Baldwins, which are so abundant this year, are very fair though not unusually large. Doubtless the same vitality in the trees and the same climatic influences which tend to produce an abundance, tend also to produce apples of large size, but vitality and other forces being scattered among so many apples, we can't expect them all to be large. That they are free from knots and worms is doubtless due to the fact that the insects having so large a range, can't get round too many specimens. The knots we find on apples are the result of the bite of insects, especially the curculio. This great enemy of the orchardist makes a crescent puncture in the skin of an apple, in which he deposits an egg, and if the vitality of the fruit is sufficient to throw out the egg before it is hatched, the puncture causes a knotty depression.

As to the remedy for this alternation of fruitfulness and barrenness, we know of none better than to keep the orchard in good condition by the use of fertilizers—a compost of wood ashes and muck we find the best—so that the trees may have vitality enough to bear liberally each year. A liberal or even a moderate product annually is far better than over production in alternate years. The fruit-buds of one year are formed early in the previous year, so that we prefer top-dressing our orchard in the autumn, in order that the trees may feel the inspiration of the manure early in the spring. If hogs are allowed free range of an orchard they will devour the windfalls and the larvæ inside of them, and thus diminish the insects, and, at the same time, by their rooting and excrement, will keep the land loose and well fertilized. Swine pastured orchards, we notice, are most apt to bear each year.

There has been much discussion about changing the bearing season, so as to have it come in the odd instead of the even year, and many attempts have been made in this direction, but not with such success as to warrant the general practice of the theories advanced It has been said that if the fruit-buds were picked off in the even year the habit of bearing in the odd year might be induced, but the experiment has failed in some cases, and when it has succeeded, the tendency has been to revert to over-production in the odd year. Whether this plan succeeds or fails, we doubt whether it would pay. Another proposition has been to pick off half the fruit in the even years, and thus prevent exhaustion and induce moderate fruitfulness in the unfruitful seasons. This is often practiced with good success in the case of pears, giving larger fruit the first year and a moderate supply the next. When pears bring $6 to $8 a barrel this will pay, but apples are so plenty and cheap that we prefer to let nature do her own selection in the apple orchard.—[Abridged from Ex.

SIR,—It is contemplated to establish an Agricultural School and Stock Farm in this Province, and I take the liberty to ask a few questions, which I hope will not give you too much trouble, as I presume you are well acquainted with the one that is established in your Province:—

1. Are the farmers much benefited by the improvement in stock bought by the Government?
2. Are pupils benefited by the instruction, and what is the cost of the same?
3. Are the farmers improving in agriculture near where the farm is established.
4. How much has the institution cost the country?
5. How much is annually expended for stock, and how much is paid to the managers?

I would like to know more, but I do not like to trouble you too much. I shall feel obliged for as much information about that establishment as you can give me. T S. B., Fredericton, N. B.

[We do not think the importation of stock by the Government has been of any benefit to the farmers of Ontario. It has tended rather to injure those that imported and bred good stock, and thus rather checked private enterprise. Private individuals do more good than the Government has, or ever will, in improving the stock of the country. We believe pupils have been benefited very much by attending the College, but many farmers' sons brought up on their fathers' farms are this day more successful than those that have passed through the college course, carrying all the honors with them. The cost of this institution is unknown to the public. We presume it must be half a million dollars. We would advise our New Brunswick friends not to act too hastily in this matter. The farmers themselves know their requirements much better than the citizens do. If you wish to establish a college and farm for the benefit of the farmer, let a few of the most enterprising farmers, or others, devote their attention to it, first by instructing the farmers, then by forming a company and having none but real practical farmers to direct the management of it. Prince Edward Island is really a better pattern to follow than Ontario. It too often happens that selfish or political motives are the main moving power. If either of these predominate the farm and school will not he well patronized, and sooner or later a heavy loss will be the result. If you take a vote on it, and the farmers themselves vote for it about equally, Conservatives and Reformers, then you have a fair foundation. But you must leave the control of the institution with the farmers. You may aid them in commencing, but the object must be to make it self-sustaining. You must act very cautiously about this, or you will soon have an elephant on your hands.]

SIR,—Will you kindly tell me, if you can, the reason why onions have thick necks? I formerly held the opinion that the cause was bad seed, but this year the complaint is so general amongst my neighbors all around that I am anxious to know if some other reason cannot be assigned. The seed used around here came from so many different quarters that one would suppose it could not all be bad. W. R., Gowanoroft, Manitoba.

[There are a great many reasons why onions grow to thick necks. 1st. As onion seed raised in the United States fluctuates in price so much, it is customary with a great many dealers to import seed from England, which can be done at half the cost of American seed, and it is an established fact that English seed invariably grows to thick necks, while the germinating properties are equal to the best American seed. 2nd. Onion seed can be raised in Canada with good success, and we know Canadian seed has produced the finest of bulbs, equal in every respect to American seed, but if the seed bulbs are not properly selected, and are not hand picked and properly saved for raising seed, they will in time run out, and a great percentage will grow to thick necks. 3rd. If the seed is sown in a very mellow soil, without being rolled or pressed down with a spade, and warm rains set in, which cause a very rapid growth in the early stage, it will certainly produce a percentage of thick necks, even if the most reliable seed has been used.

SIR,—Please inform me what quantity of flax seed should be sown to the acre, also the proper time to sow, and whether high or low land is best suited for that crop? How has the Defiance Wheat turned out? I have seen no notice of its success or otherwise in the ADVOCATE. I got a pound which has done very well. I have eighteen large sheaves from it which will, I think, thresh out pretty close on a bushel, but I have been too hard pressed with other work to get it threshed yet.

The harvest in this Province has been very protracted this year, owing to an abundance of rain and continuous cool weather; notwithstanding the crops are excellent, and for all the rain we have had I have not seen or heard of any grain being sprouted. W. R., Preston P. O., Manitoba.

[Flax seed requires medium high land and good clay soil free from weeds; should be sown about the latter part of April or beginning of May. Sow from one peck to one and a half pecks per acre. The Defiance Spring Wheat did very well—rather better than most other varieties, but being only sown in small quantities we fancy a better chance was given it. We would not recommend our farmers to grow much spring wheat of any kind until a change for the better takes palce, as it has not been a profitable investment the past three or four years.]

SIR,—I send you enclosed a leaf and blossom of a weed known here by the name of "island grass." I have been told lately that it is Canada thistle. Will you please inform me what it is?

G. L., Mahon Bay.

[The plant is the Black Cantaury or Knap-weed (*Centaurea Nigra*). The plant is also known as the Star Thistle. It is a coarse weed, found in fields and waste places, and imported from Europe. It is quite distinct from the Canada thistle (*Cirsuim Arvense*). The plant is not found in this district, and if our correspondent would send us two or three larger specimens, pressed between folds of paper, we should feel obliged. If put between two pieces of cardboard and tied together, they would carry safely by mail; marked botanical specimens they may be sent for one cent per ounce.]

SIR,—We are doing a little here in the sorghum line. Some of our people got some early amber seed last spring, and it grew well. Some of it reached 10 feet in height. One man has already converted his into syrup. He had about 22 gallons from about half an acre, but said he did not get near all the juice out of his cane. As an experiment he is quite satisfied with his success. At all events it has demonstrated that the cane will mature here to perfection.

T. H., Meaford P. O., Ont.

sale; the percentage system made them push the catalogues, to the profit of the Society and themselves.

I also suggest that subscribers in future should pay $1.25 subscription, and be entitled to enter stock, &c., and receive catalogue; that the pedigree of all stock, entitled to pedigree, shall be given for four generations, as well as name of animal.

All exhibitors of stock and implements who wish to advertise same shall supply the Printing Committee with sheets of advertisements printed on same size as the catalogue, and an equal number, for the purpose of being stitched up with catalogue, paying $1 towards expenses. A good book of reference would thus be formed for the farmer, useful and ready to hand.

I think this latter proposal would work well, and be of mutual benefit to the Society and advertiser, to say nothing of the great benefit the agriculturist would derive. It may be said by some that the scheme would be too large and cost too much. I say no to this, for the dollar charge would clear the additional expense of stitching, while the material would be supplied by the advertiser.

I recommend, also, all stock-breeders to publish any stock they may at the time have to sell. Buyers and dealers would then know where to apply. When once the benefits to accrue from advertising have developed themselves, it will drive more men to advertise in the general papers.

An objection is raised that it would be impossible to number the catalogue so that the public could identify the stock exhibited, in consequence of all exhibitors of cattle requiring them to be stalled in one place to save the expense of extra caretakers, and for security. To obviate this difficulty three numbers must be used in catalogue—(1) a class number, (2) register number, (3) section number—against each animal; the class number in red ink, section number in blue ink, register number in black ink, and columns headed accordingly. Corresponding numbers in like colors will be affixed to pen where cattle stand. Then, with a little care each person can find the stock wanted.

I make these suggestions so that the subject may be thoroughly ventilated and weighed before the general meeting. F. G., Oakville, Ont.

SIR,—Please tell me which would be best to sow on low or swampy ground, rape or lucerne, for soiling, or pasture; and which is the best time to sow, spring or the autumn?

W.H.A., Weldon P.O., Ont.

[The profits from lucerne and rape depend on circumstances, such as the quality and preparation of the soil. Rape should be sown in June, broadcast, on well-tilled soil. It is very profitable for feeding cattle and sheep, pasture, or soiling. Being an annual plant it requires seeding annually. The roots and refuse foliage, plowed under, enrich the soil on which they have grown. Lucerne has not been much grown in Canada or the Northern States. Some, however, have grown it successfully. In the fullest sense it is perennial; when once it has established its roots, producing heavy crops of very nutritious herbage, indefinitely. The plant is related to clover, and like it, it draws largely upon the atmosphere for its sustenance. Its roots also penetrate deep into the soil, thereby bringing into use inert mineral food. For lucerne, deep, thorough tilling is necessary. The seed must be sown in drills 12 inches apart, and the plants kept free from weeds till they have fully established themselves in the soil.]

SIR,—Are there many mills made in Canada for pressing the liquid from sorghum or corn-stalks, for sugar making? P. B., Hamilton, Ont.

[As yet there is no manufacturer in Canada.]

A VALUABLE CHRISTMAS PRESENT.—A copy of the FARMERS' ADVOCATE AND HOME MAGAZINE for one year makes one of the cheapest and most instructive, amusing and profitable presents you can give to a son, daughter or friend, or to a Reading Room, Mechanics' Institute, School or Society. Many of the collections we present would cost you more than the full price of the paper. If you were to present the paper to a friend you could retain the prize, as we do not give it with the paper. Every one has full value in the paper alone. The prizes are given only to subscribers that will take a little interest in adding new ones to our list. See list of prizes on first page of cover.

SIR,—Can you let me know a cure for what is termed a "growing wart" on a horse. I have tried every means to remove this disorder, but without success. J.D.K., Woodstock, Ont.

[Remove with a knife and dress with a solution of arsenic once each day, applied with a feather.]

Dairy Show in England.

The English "Agricultural Gazette" of November 1st gives an account of the recent British Dairy Show, from which we abridge the following:

Of Seliton, which is first of all classes of British cheese, only five were shown, which is a much smaller exhibit than we have seen; only two of the three prizes were given. There were ten entries in the Cheshire class; all three prizes were given, though fault was found with the exhibit. Cheddar cheese made a larger show than any of the British cheeses, but the average quality was said not to be as good as usual. The class for Derby cheese was of very good quality, and the judges awarded an extra prize in token of their appreciation of its merit. There was only one of the entries (Leicester cheese) which was rich, but some of the cheeses were quite out of flavor. The Aldford and Alton Cheese Dairy companies won the prizes with very fine samples of factory cheese, which, made in the Derby form, are classed as Derby, although the texture of the cheese differs from the old style of Derby cheese. These factories have this year been more successful than any other—at least in the showyard; and clever factory managers undoubtedly possess an advantage over ordinary dairy farmers in these competitions. Making a large quantity of cheese daily, which, made in the same vat and similarly kept, is generally uniform as far as regards each day's make, they can pick out cheese for exhibition when exactly at its best, and of uniform quality.

In each of the three classes for double Gloucester, single Gloucester and Wiltshire cheese, there were one or two entries, but the judges did not think well to award any prizes, although they commended one entry of double Gloucester of very fair quality, the exhibitor of which felt somewhat aggrieved. We think the judges might very well have been less chary of the prizes.

There was a good display of cream or soft cheeses. A fine sample of sage cheese from the Aston factory won first in a class for any other British variety, an entry of Camembert cheese being second.

American cheese was exhibited in two classes for colored and uncolored. The number of entries was not large, but the average quality was stated by the judges to be *the highest of any class in the hall.* We saw the prize samples bored, and can testify to their admirable quality, texture and color. The samples were all from the United States, and we noticed the prize colored cheeses were branded with the date of their manufacture, September 1, so that the cheese would be just eight weeks old. The various classes of foreign cheese possess immense variety of form and color, many of the shapes being absurdly fanciful. The competition was very good in most of the numerous varieties.

There were Gruyeres, thin, flat cheeses of large circumference, many of which are made on the co-operative principle on the mountain farms of Switzerland; black-looking Parmesan cheeses with crust so hard as to be almost impenetrable; and Edam cheese, round balls colored bright red or yellow, and the flat Gouda cheese with carved edges. There was a very large display of Dutch cheese, being part of the large collection of dairy produce sent over under government assistance from Holland. This Dutch cheese is useful, clean-flavored cheese, but not very rich, and often too salt. In one class was a large number of entries of round cheese especially prepared, spiced, and put in bladders or lead paper for exportation to tropical climates. There were some excellent entries of Russian cheese in a special class. When factories were first started in Derbyshire, a Russian lady of education came over and staid nearly a year at one of them in order to learn the best methods of cheese making. She has instructed others in Russia, and an export trade of really excellent cheese has sprung up. Some of it is in imitation of Derby, some of Cheshire cheese. We saw several lots bored at this show, and were surprised at their excellence. One sample of colored Derby was first-rate. Foreign soft cheese in small packets was very savory to the smell.

In the cheese fair for lots of one ton each, the majority of the entries were of Cheddar and Scotch Cheddar, the sorts most saleable in London. The first prize was won by a lot of Somerset Cheddar; the second by Scotch Cheddars.

The only entry in a separate class for Derby and other varieties was from the Aston factory. It took first prize, and was sold at 80s. per 120 lbs. We hear that this good paying price is bid for all the remaining cheese at this factory of this season's make.

Catalogues for Exhibitions.

SIR,—I was pleased to find in your last number an extract from Bell's Weekly Messenger correspondent, report of the Toronto Industrial Exhibition, wherein he regrets the want of a catalogue at said exhibition.

I have represented to some of the Committee, as well as to the Secretary, Mr. Hill, the great want of such a catalogue. Their reply was that it had been tried and did not pay. Why this should be I cannot understand. I have been personally engaged for many years in the mother country at local shows, and catalogues were always issued and found to repay the outlay, giving a good profit besides. One method was to appoint newspaper boys or other smart lads to sell them, allowing them a percentage on all sold. These lads were in and out amongst the sight-seers, and always effected a good

Heating Milk for Winter Setting.

Heating the milk of small dairies in winter is very necessary where the temperature of the milk-room is much below 60°, for the bodies of milk will raise very little cream with the temperature at 50° or below. Heating the milk to 130° or 140° will cause nearly all the cream to rise while the temperature is falling to 50°. Cream rises faster while the temperature of the milk is falling. If heated milk is set six to ten inches deep, in a room at a temperature of 45° to 50°, it will take several hours for the temperature of the milk to fall 90°, and the cream will principally rise during this time. But heating milk in winter serves other important purposes. Heating is a purifying process. It drives off all bad odors or taints it may have taken from the condition of the fodder or odors of the stable. All dairymen are not aware of the danger of tainting the milk, in winter, from the cows standing in an impure atmosphere, or of eating mouldy fodder, or drinking water from a well that has received the droppings of the barnyard. Heating purifies the milk from all these taints, or from a turnip or cabbage flavor. It must be set, however, after heating, in a pure atmosphere. It is found, also, that the cream from heated milk churns much easier in winter. The cream should be churned within 24 to 36 hours after skimming and should not stand more than 30 to 36 hours before skimming. Milk is apt to become bitter by long standing in winter. It is supposed that you keep your cellar clear of vegetables, as these would so charge the air with vegetable odors as to taint the cream and spoil the butter.

INTERNATIONAL POTATO SOCIETY.—The exhibition of this society was held a few weeks since at the Crystal Palace, London, and was so extensive that 2,500 dishes of nine tubers each were shown by one hundred exhibitors. Many prizes were awarded, and among those for new varieties, the first was given for a long Round Kidney, raised from the Belgian Kidney crossed by the Early Rose; the second to a seedling of the Early Rose crossed with Fenn's Early Market, and the third to a round white variety not crossed. A writer in the Garden says that although some collections embrace hundreds of sorts, yet only thirty included about all that are commonly cultivated. Of recognized sorts, America furnished about fifty; and one exhibitor who had a very fine lot of twenty-four sorts, included among these no less than seventeen that were American. English cultivators find a great advantage in employing the American varieties to cross with their own.

Wm. Whitelaw, Paisley Block, Guelph, sold a horthorns steer, weighing 2,015 lbs, at 9 cents, the other day. The beast will be exhibited in Britain at the Christmas market.

Commercial.

FARMER'S ADVOCATE OFFICE,
London, Nov. 27, 1880.

What with good crops and good prices, business has been very active this fall; money is plenty and cheap, and merchants have been doing a good trade.

WHEAT.

This article is now attracting a good deal of attention on both sides of the Atlantic, and things are somewhat unsettled, in fact we might say that the markets are somewhat flurried. This is owing in the main to substantial causes, but, no doubt, largely to the sudden and extensive lock-up of grain in the canals and on the lakes. There are some eight hundred boat loads in the Erie canal, which means about 8,000,000 bushels of wheat. This, with the Chicago "clique" buying some three or four millions more, has had the effect of sending things up with a bound. How far the English dealers will follow these prices in their upward movement remains to be seen, and it would be well if the speculators on this side would pause before going to far with their "bull" movement, and remember how things turned out last season, taking care that we do not have a repetition of the same, for while they want our wheat, it is questionable whether they will want nearly as much as last year. Some writers estimate the wants of Europe will be some 75,000,000 bushels less than last year, and that we have some 90,000,000 bushels more for export than we had last year. In the face of these figures we cannot see much grounds for any very important "bull" movement, and it will behove dealers and shippers to be very cautious; and farmers who do not avail themselves of the prices now paid will not get much sympathy ff they should have to take much less for their wheat.

From statistics lately published we find that Canada holds quite an important position among the wheat exporting countries of the world, who supply Great Britain and Europe with bread. In 1877 Canada stood fifth on the list, in 1878 she was fourth, and 1879 third, the United States being first and Russia second. We see from this she is coming rapidly to the front, and the day may not be very far distant when we will stand second, if not first.

One great drawback to the free movement of produce this fall has been the scarcity of cars. This has come to be a serious matter for shippers and warehouse men, as much of the grain that was bought a month ago is still in the warehouses. Many of these are completely filled, and the owners forced to stop buying, simply for want of a place to put the grain.

PEAS.

Have sold very steadily, and prices are good, with an upward tendency. A good many of the peas now being marketed are taken by the split pea mills, who are paying rather more than they are worth for export.

BARLEY

Has caught the same infection as wheat and has been climbing up rapidly the past few days. The crop is not a very good one, and the sample is very irregular.

FLOUR.

The trade in this article has assumed immense proportions this fall. Every mill in the country is running to its full capacity and millers are making money, this being the best season they have had for years. Canadian flour is turning out well and giving good satisfaction.

CHEESE

Has been very quiet, and we may say dull for some weeks. The fact is, that prices were forced much too high on this side in September and October, and finest fall cheese should never have been higher than 12½ cents. ad July cheese been moved out at 10½, August 11, and September and October at 12½ cents, we should have seen a much healthier trade; as it stands now, the 13 and 13½ cent cheese stands in a fair way to lose money to the owners.

Dairymen certainly have no cause for complaint this fall. Taking both butter and cheese into account, farmers have realized fifty to seventy-five per cent. more for their milk than last year; this, together with an unusually good year for the production of milk, has been the means of putting a good many solid dollars into the farmer's pocket over last year. Those who sold their cows in disgust last year will now see their folly for so doing, and those who kept their cows will see the wisdom of sticking to one thing and waiting patiently for the good time to come—for come it does, sooner or later. Every trade and every branch of husbandry has its ups and downs, and so must those who keep cows expect to have their turn with the rest.

BUTTER.

This article has maintained a very steady course the whole summer and fall. Starting at 12½ to 14 cents, it gradually worked up from 18 to 20 by the first of September, and since then has maintained that position. Of course, those prices apply only to really fine butter. The English markets at the present time are very dull, and nothing is saleable but strictly choice butter, and buyers are very fastidious as to what is strictly choice. At the present time there is a preponderance of poor and medium butter, both in England and New York, and holders of this class of goods are having some trouble in making sales. Could those who make this class of butter be made to see and know how much they lose, as well as those who undertake to handle their goods, by making poor butter, they would soon turn over a new leaf. The loss to the country from poor butter is something enormous.

London Markets.

London, Nov. 27, 1880.

Receipts liberal since our last report. During the last week the wheat market has been firm, but has become easier at $1.78 to $1.82 per 100 lbs; general run, $1.80 to $1.81. Barley firmer; peas and oats steady at former rates.

GRAIN.

	Per 100 lbs		Per 100 lbs
Deihl Wheat.	$1 78 to 1 80	Peas	90 to 1 00
Treadwell..	1 78 to 1 80	Oats	85 to 90
Clawson	1 78 to 1 80	" Old	
Red	1 78 to 1 82	Corn	90 to 1 10
Spring	1 40 to 1 70	Rye	80 to 90
Barley	1 25 to 1 30		

PRODUCE.

Butter, crock.	21	to 23	Potatoes, bag.	50	to 60
do roll..	22	to 25	Apples p brl.,	75	to 1 25
do keg..	18	to 20	Turnips, p bu.	25	to 30
do inferior	8	to 12	Beef, per qr..	3 00	to 5 00
Carrots, p bu	15	to 30	Mutton, lb....	6	to 7
Onions, bush.	75	to 0 00	Lamb	5	to 8
Beef, per qr..	4 00	to 5 50	Wool	27	to 27
Tallow rend..	8		Dressed hogs, per 100 lbs.	5 00	to 5 50
" rough...	4		Live hogs, do	5 00	to 5 00
Honey	20	to	Lard	10	to 12
Cordwood	4 00	to 4 00	Geese, each ..	40	to 50
Ducks.... ..	50	to 60	Turkeys " ..	50	to 1 25
Chickens, pr..	25	to 40	Milch cows	26 00	to 40 00
Cheese, per lb	12	to 12			

FLOUR.

Flour, fall wht.	2 75 to 3 00	Oatmeal fine	2 50 to 2 75
" mixed..	2 75 to 2 75	" coarse	2 75
" spring..	2 10 to 2 75	Cornmeal	1 50 to 2 00
Shorts, per ton	14 00 to 18 00	Bran, per ton	12 00 to 14 00

HAY AND STRAW

Hay, per ton	8 00 to 9 00	Straw, per load	2 00 to 3 00

Toronto Market.

Toronto, Nov. 27.

Fall wheat, $1 12 to $1.24, spring, do $1.18 to $1.24, barley, No. 1, $1 08, No. 2, $1.03, No. 3, 90; peas, No. 1, 71c, No. 2, 70c., oats, 34c., corn, 61c., flour, superior, $5 20, strong bakers', $5 30, spring extra, $5 20, bran per ton, $13, hogs, $5.50 to $5 75, pork $15 to $16.

Montreal Market.

Montreal, Nov. 27.

Flour—market quiet and demand less, prices nominally unchanged. Flour—Superior $5 65 to $5 75, fancy $5 40, superior $5 to $5 15, strong bakers' $5 75 to $6, fine $4 15 to $5, Pollards $3 20 to $3 50, middlings, $3 60 to $3 85, wheat $1 25 to $1 30, red winter do. $1 22, corn in bond 59 to 60c, peas $2 to 83c, oats 34 to 35c, barley 60 to 70c, rye 92½, oatmeal $4 40 to $4 45, cornmeal $2 75 to $2 80, butter—eastern 18 to 20c, Brockville, Morrisburg and Eastern townships 19 to 24c, cheese 12 to 12½, pork $16 75 to $17 25.

New York Markets.

New York, Nov. 27.—Wheat No. 1 white $1 21½, No. 2 red $1 23½, rye $1 00 to 1 06, corn 57½ to 61c, barley 2-rowed State 95 to $1 00, 6-rowed $1 05 to $1 15, No. 2, Canada, $1 20 to $1 25, No. 1 do. $1 35 to $1 40, oats 43 to 52c, butter 14 to 26c, cheese 7 to 13½c.

Chicago Market.

Chicago, Nov. 27.—Wheat $1 00 to $1 09½, corn 42½, barley $1 05, oats 32 to 33c, rye 91c, pork $14.

Boston Market.

Boston, Nov. 27.—White wheat $1 07 to $1 21, red and amber $1 16 to $1 25, spring $1 13 to $1 21, barley 90c to $1 00 for Canada, 75c to 90c for State, rye $1 07, oats No. 1 and extra white 5 to 52c, No. 2 white 47c, No. 3, 46, choice winter wheat flour $6 50, spring wheat patents $7 25 to $8 62, cornmeal $2 75, ryemeal $5 75, oatmeal $5 25 to $6 50, buckwheat flour, per 100 lbs, $2 75, pork extra prime $13 to $13 50, western clear $17, beef, western mess $9 15 to $10, dressed hogs, live, 5¾ to 6c.

English Markets.

London, Nov. 27.—Floating cargoes of wheat rather easier; corn quiet. Cargoes on passage—Wheat and corn very little enquiry. Good cargoes of red winter wheat off the coast at 48s; No. 2 spring, 47s 6d; No. 2 red winter wheat for prompt delivery, 48s.

Liverpool.—Flour, 9s. 9d. to 12s. 0d.; wheat spring, 6s. 10d. to 1.s.; red winter, 10s. to 10s. 3d.; white, 9s. 2d. to 10s.; club, 10s. 6d. to 10s. 7d.; corn, 5s. 10d.; oats 6s. 3d.; barley, 6s. 3d.; peas, 7s. 0d.; pork, 69s.; lard, 46s. 0d.; bacon, 41s to 43s.; beef 57s.; tallow, 36s.; cheese, 66s.

The agricultural department of the United States has furnished a detailed statement by States of the crop of 1880, as compared with that of 1879, showing an increased product of over thirty two millions bushels of wheat. To this is to be added the increased yield of the grain crops in England and other European countries. The conclusion arrived at is that, as large as is the demand in Europe for American breadstuffs, there is more than enough to meet every demand. The demand will keep the market steady, while the great abundance in North America will prevent high prices. Our latest advices from New York, Nov. 27, are:—On the produce exchange wheat declined 2 to 3 cents per bushel in sympathy with the Baltimore market. There is a tremendous glut of wheat in that city.

THE LONDON ADVERTISER (Weekly) is giving a handsome portrait of Gladstone to its subscribers for 1881.

With this issue you receive the index of the present volume. By having the volume bound at once you have a valuable book for reference.

BARBED WIRE FENCE.—The Metallic Spinning Co., of Woodstock, Ont., has secured a contract for 200 miles of their wire for use between Emerson and Winnipeg, and are expecting an order for wire sufficient for several hundred miles from Minnesota. This cheap fencing must take the place of our board and rail fences.

There was an early and very heavy wind, hail and snow storm in England the past autumn. At the flower gardens in London, England, 12 tons of broken glass were carted away. This quantity might give you some slight idea of the extent of green-houses and hot-houses in that garden clime.

When a certain king of England visited Scotland, many years ago, the following conversation took place between two countrymen; Sandy: "Well, Jock, hae ye seen the king?" Jock: "Oh, ay, I hae seen the king; but I wadna gang the length o' the street to see him again. He's just made like ony ither mon, an' they tell't me his arms were a lion an' a unicorn."

A learned man was writing to a friend; a troublesome fellow was beside him, who was looking over his shoulder at what he was writing. The learned man, who perceived this, continued writing in these words: If an impertinent chap who stands beside me were not looking at what I write, I would write many other things to you which should be only known to you and me. The troublesome fellow who was reading on, now thought it incumbent upon him to speak, and said, "I swear to you that I have not read or looked at what you are writing." The learned man replied, "Blockhead as you are, why then do you say to me what you are now saying."

The Family Circle.

"Home, Sweet Home."

A LITTLE MISTAKE.

BY THE AUTHOR OF "TRISSIE'S BRIDAL," "WILFUL WINNIE," "AGAINST HIS WILL," "A TWISTED LINK," "CLASPED WITH REINS," ETC.

FATHER CHRISTMAS—with all due respect to the worthy old gentleman, be it said—does not always treat his votaries fairly. He knows that they love to see him appear in hoary garb of rime and snow, with icicles on his beard, and a sharp but invigorating blast in his breath, that makes the ice stronger for the skater, the fire burn brighter in the hall; and the comforts of the hearth take a more grateful hue as we contrast them with the cold that reigns without; yet sometimes he heralds his approach with fogs and mistling rain, and everything else in the shape of weather that is damp, dirty, and disagreeable. Then no one cares to venture out; or if they are brave enough to do so, they come home coughing and sneezing, with blue noses, and cold chills creeping all over them. There are no festive ideas attached to a sloppy Christmas, and we all feel as if we had been in some measure defrauded out of our rights.

Yes, and so it was in the year 18—, for just two days before our great festival the large drops fell so continuously, that when night came the streets were almost impassable, and two fair young faces, that had been peering through the curtained window of a pretty villa at Surbiton, were drawn back with looks of distaste and regret.

"What a wretched evening!" said one, as she threw aside the knife with which she had been trimming the holly and ivy tastefully disposed around the pictures and chandeliers. "Perhaps it is fortunate that Tom is not likely to arrive till to-morrow. It must be miserable to come home after a long voyage, and find a cloudy sky, and everything wrapped up in mist and rain."

"Still, I cannot help wishing that he was here," replied his sister, coming and seating herself on the hearthrug to warm her numbed fingers. The house seems intolerably dull. Do read mamma's letter again, will you, Prue? for I was so vexed on hearing that we are not to spend our Christmas at home, that I had not patience to listen to the rest."

"But, Nellie, how unreasonable! I am sure Henry Anderson is the best of brothers-in-law, and there cannot be a pleasanter house to visit at."

"I am not disputing anything you say, and I'm always pleased to spend a week with Belle and her little ducks of babies; but papa had set his heart upon the Andersons coming here, and having all of us—dear old Tom included—about him once again; and after planning, contriving, turning the house upside down to make room for so many visitors, and dislocating my neck and my arms in decorating the rooms, it is provoking that Belle's illness should have set all our plans at naught!"

"So it is, but, on the other hand, we will not forget to be very, *very* thankful our rejoicing is not turned into mourning, as it would have been if Belle's attack had not taken a favorable turn."

"Say no more!" cried Nellie, folding her arms on her sister's knee. "I am ashamed of my grumbling, so read the letter, there's a dear old Prue, and I'll not interrupt you again."

All that day the sisters had been busy, as sensible girls will be when a festive season is approaching, and help is wanted above stairs and below; and they had laughed once or twice as they went by a glass at their own quaint figures. Paniers and flounces were partially hidden by the large holland aprons and sleeves which guarded their pretty cashmere dresses, while from mamma's drawer were purloined two of the neat little morning caps of lace, made for her by a French *modiste*, and now appropriated by her daughters to protect their brown hair from dust or stray spiders. Nelly, a piquante little creature, all fun and frolic, only needed a knot of cherry-colored ribbons to look precisely like the Dolly Varden of Dickens' admirable novel, while Grace, or Miss Prudence, as her sister teasingly called her, with her more pensive cast of countenance, would have made an admirable study for a Puritan's daughter.

The letter was read with many comments:—

"*My darling!*" [What a nice little hand mamma writes for an old lady!] *I am sure that you will be delighted to hear that our precious Belle is quite out of danger.*' [It was a tear of thankfulness that blotted the paper there, I know!] '*She grieves that Mr. Anderson's telegram should have hurried us from our home; but I do not regret it, for she was so pleased and thankful to have me with her.*' [I don't know who wouldn't be, for their isn't such another nurse in the world as mamma!] '*Although she is rapidly recovering, she must not venture out yet, so Mr. Anderson proposes that we shall spend our Xmas here.*'"

"That's the paragraph that made me rave out!" Nelly said; but I'm calmer now. You may finish the letter."

"'*To please Belle, pnpa has consented; and you, my dear girls, must join us with Tom as soon as he is sufficiently rested from his journey. You will make my dearest boy understand how sorry I am that I shall not be at home to greet him.*' [Poor mamma! I know it has disappointed her sorely that she cannot be the first to bid him welcome after his long absence. What are you thinking about, Grace dear? There are tears in your eyes."

"Something recurred to my memory that—that happened when Tom first went to Australia six years ago; but it is not worth repeating," Grace answered; and Nelly said no more, for she had just remembered hearing that her brother did not sail to that far-off land alone, his companion being one whose looks, if not his lips, had told a tale Grace Derville had not found it easy to forget.

"How cold it is! The fire is nearly out!" the elder sister said, arousing herself half an hour afterwards from a long fit of musing, during which Nelly had drooped her head on the arms still resting on her sister's knees, and Somnus had weighed down her eyelids. "Wake up, sleepy one! I think, we had better adjourn to the kitchen and eat our supper by cook's fire, for it is growing late."

"Just as you please," was the drowsy reply; but what a shame to wake me! I was dancing Sir Roger de Coverley in my dreams with an Australian chief, whom Tom brought me over for a Christmas-box: paint, feathers, boomerang and all. He was a hideous figure; but he danced so exquisitely, that I overlooked his ugliness."

"You ought to be very much obliged to me for dispelling such a vision;" and the laughing Grace led the way to the bright, pleasant kitchen at the back of the house. It's inmate, however, was in a very dolorous mood, that not even the sight of their pleasant faces could wholly dispel. She had caught a violent cold which defied flannel, gruel, hot-water, and all the other experiments that had been tried upon it. Like some spiteful imp resolved upon plaguing her, it was no sooner dislodged from one point, than it twitched her in another. It had made a leap from her limbs to her ears and rendered her deaf, and had roamed up and down her teeth till her face was swelled into nearly twice its ordinary rotundity, and she could scarcely speak so as to be understood. It was, therefore, more by signs than words that she welcomed the young ladies, who had done their best that day to spare her, and began to toast sippets for the elder-wine she insisted on warming for them.

"Do you know, Miss Prue," said Nelly, as she put her feet on the fender, "I don't think you acted wisely in letting John and the housemaid go away till Tom arrived, and we were quite able to dispense with their services."

"But, Nelly, they assured me that their mother was dying, so how could I refuse? and cook said that, as we were all going to Mr. Anderson's, she had rather be without them, didn't you, cook?"

"Don't like neither of 'em," she was understood to reply; "don't believe they're honest—don't believe they're brother and sister: never did. Glad to see back of 'em."

"But suppose thieves were to break in, and only we three helpless women in the house?"

Grace pooh-poohed this, and cook, looking as belligerent as her ailments permitted her to do, picked up the kitchen poker, and was shaking it fiercely at an imaginary foe, when a tremendous rapping at the outer door made her drop it on her toes, and utter a yell of alarm.

A stupified pause, and then the sisters started up simultaneously.

"It's Tom dear—dear, Tom! Home at last our dear brother!"

Away they flew, breathless with delight; their hands trembling so that they only impeded each other in their eager attempts to undo bar and chain and admit him. A cab rolled from the door as they opened it, but Grace and Nelly shrank back, and clung to each other in bewilderment, for there were *two* tall figures standing before them, and neither had the round Saxon face and light hair of their long-absent brother.

"Mr. Derville's, I believe?" said one of the strangers, courteously, while the piercing but pleasant dark eyes of the other were roving in all directions, as if everything he beheld was new, and therefore interesting. "Will you tell him that we are here at the request and the invitation of his son whom we are preceding by a few hours? There are our credentials."

He handed Grace a card, on which was written:—

"DEAR FATHER,—"

"Detained by business of the greatest importance. Take care of my friends till I can join them.

"Your affectionate son,
"Tom."

"Mr. Derville is not at home," said Grace, who, from some unexplained cause, was trembling excessively. "He has been suddenly called away by by the illness of his daughter."

"And Mrs. Derville?"

"Has accompanied him."

"Then we are in a fix!" said the young man who had not hitherto spoken. "This comes of Master Tom——"

"Hush!" muttered his companion, with a significant glance at the young girls. "*Parlez Francais, mon ami.*"

"This comes, then," he went on, in the language recommended, "of Master Tom falling head over ears in love with a pretty widow, and feeling it incumbent upon him to escort her home. What are we to do? Go to an hotel, eh, Graydon?"

"No," Graydon answered, after a thoughtful pause; "Tom would be offended if we did that; and his father was one of the most hospitable of men. I think we may venture to take up our quarters here till our friend joins us. He should not have placed us in such an awkward position; but as we have valuable property of his about us, we will stay here to-night, at all events."

Stepping toward Grace, who was strangely obtuse to the significant glances her sister was bestowing upon her, he said:

"My good girl, I suppose we can remain till Mr. Tom arrives? We are wretchedly tired, and do not care to hunt about for an hotel at this hour."

"He takes us for servants!" whispered Nelly, indignantly.

"I know—I know," faltered Grace; "for goodness sake don't undeceive him; don't tell him who I am: I couldn't bear it."

She was so terribly agitated, that Nelly, beginning to divine something of the truth, dashed in to her rescue, and, folding her hands very demurely, curtsied to the gentlemen.

"I'm sure, sir, any of Mr. Thomas's friends are quite welcome, and pa—master would be quite indignant if they were turned away on such a night as this. Will you step this way, gentlemen? a fire shall be lighted directly."

"Not for us, pray," interposed the younger traveller, with an eager and frank manner that was really very pleasant. "You have one in your kitchen? then take us there. We are bushmen, remember, who have learned to make all sorts of shifts, and to be easily satisfied. Now this is jolly!" he exclaimed, as Nelly threw open the door, and cook, very much astonished at such proceedings, made low curtsies to everyone in succession. "What a delightful change from that cold, pelting rain, to this cosy fireside! Introduce me to the cook, will you, Mary? "Oh! you are Nelly, are you?" he exclaimed, as the young lady, with some dignity, corrected him. "It's a pretty name, and I like it much,—introduce me to her, for I am half-famished, and I must coax her into giving me something substantial for supper."

Vibrating between amusement and vexation, Nelly whispered some orders to the cook, for Grace was bent on keeping in the back-ground, and the table was quickly spread with comestibles.

By this time both gentlemen had divested themselves of their over-coats, and were standing on the hearth, enjoying the warmth of the fire. Mr. Graydon had a pleasant, thoughtful face, marred by the expression of sorrow that frequently crossed it; but there was no shadow on the brow of his companion. Bronzed with exposure to the weather, his free movements and well-developed figure also testified that he had lived the life of the woods and fields, instead of the desk or in the city. His manner lacked, perhaps, the polish of more civilized society, than is to be found in an Australian hut; but then it had that kindly courtesy born of good-feeling which never pains, never deceives.

"What shall we do?" asked Grace, drawing her sister aside while their visitors were doing justice to cook's viands.

"Do? Why, nothing. They have deceived themselves; so let them remain in their error till Tom comes. I rather enjoy the fun; and how foolish they will look when he undeceives them!"

Her eyes sparkling with mischief, Nelly tripped back to the table more slowly followed by her reluctant sister, who was beginning to regret the impulse that had led her to conceal her real name.

Their re-appearance was the signal for both gentlemen to rise, and Graydon gravely accosted them.

"We cannot think of remaining here if we drive you away. We have intruded on your domain, and you must prove that you do not mind it by going on with your own pursuits or amusements as usual."

Thus entreated, Grace picked up cook's knitting, and Nelly found occupation in unravelling some tangled wool, casting the while many sly glances under her long eye-lashes at the Australians, the younger of whom she soon learned to know as Fritz Meryon. It was provoking to find that his eyes were similarly employed, and Nelly bridled up, and squeezed herself into the darkest corner when the young men had finished their meal, and drew up their chairs to the fire also.

"Has Mr. Derville's daughter been dangerously ill?" Graydon inquired of Grace, who never looked up, but knitted diligently as she answered in the affirmative.

"But she is recovering, you say? and she is happily married, is she not?"

"Very happily," was the reply.

Mr. Graydon said he was glad to hear it, but he gave a sigh the while, and made Grace drop some stitches.

"It *was* Mr. Derville's eldest daughter who married, was it not?" he asked, presently. "There were two, and I heard that it was the eldest who became the wife of Henry Anderson: am I right? I was afraid—I mean, I thought I could not be mistaken."

And then he fell into a deep reverie which lasted till his friend touched him on the shoulder.

"Graydon, the coming home that made Tom Derville half wild with joy, saddens you: how is that?"

"Pooh! old memories will rise to the surface sometimes; but I shall soon shake them off. Is it not time we relieved these good girls of our presence, and went to our own rooms?"

"Stay awhile; I could not sleep yet. Mistress Nelly, will you intercede for me again with your good friend the cook?"

"Certainly, sir, if your wishes are reasonable ones," she replied, moving a little forward.

"Humph! in my own land there would not be a question about it; but here I am as much at sea as when I was tossing upon the ocean. Is cook fond of perfume—sweet odours?—does she like the fragrance of the Indian weed, or, in plain words, will she let me have a smoke I am dying for?"

"Yes," said Grace.

"No," said Nelly. "It's a horrible habit. Cigars out of doors are barely endurable; but tobacco in the house infects one's clothes and the curtains with an unpleasant odour."

"Hum!" said Fritz again, taking out a very ugly little black pipe, looking at it regretfully, and dropping it back into his pocket. "Tom Derville smokes tremendously."

"He never did before he left home," Nelly asserted.

"Perhaps not. I think I have heard him say his sisters objected to it: and I believe he is so fond of them, that he would do anything to oblige them."

"Then, for their sakes, I daresay he will renounce the odious pipe," said Nelly, demurely.

"If they do insist upon it, you must take pity on him, and let him have a whiff here," Fritz replied. "You don't know what a comfort a fellow finds it when he is lonely and solitary. If he has a far distant home, and dear friends in it, it soothes him to sit and smoke, and dream of the day when we shall see them again; and if, like myself, his friends are few, and he has never known the joys of home since childhood, why, somehow he finds solace in the old pipe and fancies it engenders."

"I don't think cook minds smoking *much*," said Nelly, almost under her breath.

But Fritz shook his head.

"Never mind; you do, and I'm sure I'll not annoy *you*."

For which gallant speech she regarded him with a smile as he bade her good-night and followed his friend to the apartments made ready for other guests.

"It's just as nice here as Tom described it," they heard him remark in French, as he strode upstairs behind the cook, who was the candle-bearer; "and, I say, Graydon, *mon ami*, if the maids are such charming girls, what must Tom's sisters be?"

Nelly softly clapped her hands and waltzed round the kitchen.

"Of all the little mistakes that were ever made, this promises to be the most amusing! My dream soon came true, Grace; and the chief isn't half so hideous as I expected. What do you think of him? Do answer! Do you like him? Don't you consider him very good-looking?"

"He always was," said Grace.

"Always!" echoed her bewildered sister.

"Yes; and though time has changed him, I should have known him anywhere."

"Known Fritz Meryon, who, by his own showing, was never in England before!"

Grace reddened.

"How stupid you are, Nelly! Of course, I mean Mr. Graydon, who used to visit at my uncle's before he went to Australia."

"*Stupid*, am I?" cried Nelly, nodding her head sapiently. "I may have been what you call me, but I am not now; and I rather think, sweet sister Prudence, you are belying your name to-night. You'd have known Mr. Graydon anywhere, would you? He does not seem to be quite so ready with those keen gray eyes of his."

Grace surprised and grieved her sister by bursting into tears.

"Of course not. Why should he remember me? I was a happy, rosy girl like you when he went away; now, I have grown thin and pale, and what good looks I had have vanished."

Nelly began to kiss and hug her affectionately.

"Nonsense, Grace! Everyone acknowledges that you are far handsomer than you were in your girlhood, so I'll not have you disparage yourself. Come, tell me if this Mr. Graydon was actually your lover?"

"Hush, Nelly! Pray be more cautious!" and Grace blushed and looked apprehensively around. "He never said a word of love to me, for he was poor, and it was to push his fortunes he went abroad. At first Tom used to mention his name in his letters, but ere long, they were too far apart to hold any intercourse, and it astonishes me to find that they have renewed their old intimacy."

"Perhaps it is for your sake he has returned to England," suggested Nelly.

"Ay, and perhaps, which is far more likely, he is already married to some more fortunate women," was the sad resort. "Let's go to bed, dear, and talk no more nonsense. Tom will be here to-morrow to clear up all mysteries, and by that time I shall have overcome the shock of seeing Mr. Graydon again."

When Nelly, with her cap most coquettishly adjusted, ran downstairs in the morning, cook, who had been sworn to secrecy, was preparing breakfast, and a great sound of whistling and brushing proceeded from the footman's pantry. The young lady peeped in, and, lo! there was Fritz—his hair wet and wavy with his morning ablutions—diligently cleaning his boots.

"Pray let one of the servants do that for you," she began to say, but checked herself in confusion; and the young man gaily saluted her.

"Good-morning, Mistress Nelly. Why are you looking so shocked? Are you as bad as cook? who seemed to think it would be more correct to wear muddy boots than clean them myself. What do do you think she proposed to do?—to clean them for me!"

"Well?" said Nelly.

"Well!" repeated Fritz, indignantly. "You must have a fine opinion of me to think I should let her do what I can do myself."

"John the footman ought to be here; I told Prue so,' said Nelly, who could not forget that Fritz Meryon was her father's guest.

"Ought he? Why? We can do very well without him. Graydon could tell you that we have no men in livery to wait upon us at our cattle farm in the bush; and to confess to you a little truth, I had rather learn to play the fine gentleman by degrees than have gentility thrust upon me all at once."

"Perhaps you like this sort of work?" the young lady observed, disdainfully.

"Perhaps I don't," Fritz coolly retorted. "But it does not disturb my peace of mind a jot when I find I must either do it myself, or let an elderly women play the shoeblack for me."

"You really are very chivalrous, Mr. Meryon."

"Is that meant for praise or blame? because your words imply one and your looks the other. Is there anything so very out of the way in what I have been saying or doing?"

"By no means," Nelly made answer. "It's very pleasant to see so much consideration evinced for one's sex as you have just shown. I am afraid that English gentlemen as a rule do not always treat female servants with as much courtesy and kindness as they ought to do."

"Then they should be sent to Australia. Not to the towns, but to those settlements where a lady is a *rara avis*, and a fellow must think himself fortunate if his shepherd is a married man, and has a wife who will sometimes cater for the master's comforts, sow on his buttons, et cætera. Tom Derville and I often envied a neighbour of ours, about twenty miles away, who had a sweet little English wife."

"I though you said last night, Mr. Meryon, that you were born in the colony."

"Of English parents—yes."

"But had you no female relatives there?"

"Not one. And I lost my mother when I was quite a boy; but she was such a sweet, good creature, that I reverence all other women for her sake just as my friend Tom holds up his mother as a bright example for every mother in existence. A good fellow is Tom Derville."

"Hem! has he talked much to you about his sisters, Mr. Meryon?"

"Certainly *not*. Why, you don't suppose that he would make them the subject of discourse when chatting with fellows of his own age—eh, Nelly?"

"I think you are very free with my name, sir!" was the haughty comment on this speech.

"Jove!" cried the astonished Fritz, "what have I said that offends you? Oh? I beg pardon. I suppose I ought to have called you Ellen when I addressed you."

"But I was christened Nelly."

"Very sensible people your godfathers and godmothers must have been, my little maid, for it's far prettier! What's wrong now?"

"Nothing, sir, only I strongly object to being termed anything so ridiculous as little maid. *Little maid*, indeed!"

"Then what am I to say? Remember that, if I have erred, it is in ignorance of your English customs. What are you generally called in the house?"

"Oh! a—a—it does not signify in the least,' she answered, rather irrelevantly. "Your breakfast is ready, Mr. Meryon. Will you please go to it?"

And after a moment's hesitation he went.

Mr. Graydon had letters to write, and stayed very quietly in the dining-room all the morning: but the more mercurial Fritz was not inclined to follow his example. He found out that there was more holly to be put up, and insisted on being allowed to have hammer and tacks and finish it. Of course it could not be accomplished without Nelly's advice and suggestions, and between them a very pretty "Welcome Home!" was formed of green leaves, and fixed so as to meet the eyes of Tom as soon as he entered the house. Grace, cook, and Mr. Graydon were all called to admire their handiwork; and when they had done so to the satisfaction of the artists, Nelly fetched broom and dust-pan to sweep up fallen leaves and twigs.

[To be Continued.]

At Church.

I went to meeting yesterday,—
I never went before,—
All dressed up in my newest dress,
That never had been wore.
I walked up straight, as mamma does,
And kept my mouth turned down,
Just like my Aunt Selina's mouth,
Who come last week from town.

There's boxes through and through the church
With sofas all inside.
I wished they'd play at hide-and-seek,
'Twould be so nice to hide!
Way front there was another box,
So big, and high, and tall!
A little man stood up in that;
I felt afraid he'd fall.

They sang and played, and then the man
Said something 'bout "advice,"
And no one ever answered him;
I thought that wasn't nice.
Someone came round with money-plates,—
I put two pennies on,
I thought I'd like some lemon-drops,
But he didn't bring me none.

I was so tired, I laid my head
Down on the sofa back,
Aud looked at Aunt Selina's fringe
That goes around her sack.
I guess I must have gone to sleep;
I fell, the first I knew,
And bumped my nose against the floor,
And made my forehead blue.

They picked me up and took me home,
And Aunt Selina said
I shouldn't go to church again,—
I'd better go to bed.
She sets me straight up in a chair,
And tells me not to stir,
She's goin home, I guess, bimeby,
And then I shan't ask her.

—Companion.

Hasty Marriage.

It is a sad fact that of all the marriages which are made a good many turn out miserable failures, and bring little but regret to those who have entered into them. It may safely be said, in sober earnest, that there are at the present moment scores of hearts which are heavy, and hundreds of eyes which are wet, because their owners failed to take a good comprehensive look before they irrevocably plunged into the sea of matrimony. This is because the institution of marriage is one that is very little understood by numerous individuals until a time when the understanding of it is of little use.

Angelina and Claude, when they stand together at the altar, in nine cases out of ten are simply taking each other "on chance." Now, Angelina may turn out an angel, Claud may show that he is an angel's opposite; this order of things may be reversed, or—and this is the worse consummation of all—Angelina aud Claude may have proved how disagreeable human nature can be before the termination of a fortnight's honeymoon. If the couple are unhappy it cannot be said that their being so is entirely their own fault. They have done what the most of human kind do in putting their hand into a lottery bag and drawing forth something worse than a mere blank. Angelina, if she had whished to do so, could never have seen Claude except when he was made as much like a prince as possible, in order that she might be duly impressed; and poor Claude would have found it equally impossible to have pounced upon his adored Angelina when she was not in a fit state and ready, in all respects, to receive him. Angelina cannot be blamed because she hid that "little temper" of hers; neither can Claude be censured for concealing a number of small vices, of the minor character, which he possessed. Nor can either of the pair be blamed because, like two rogues, each chose to think that he or she was a cleverer hypocrite than the other.

There is reason to believe that if there were less marrying in haste there would be less repenting at leisure. Maidens, in particular, are addicted to rushing headlong into the gaping vortex of wedlock. Nor, perhaps, when everything is considered, is this at all strange. As the respectable daughters of respectable people, their circle of action is a very circumscribed one, and their means are of the slightest. They have control over nothing, even the most important of their own actions being directed by others. They may earn a miserable pittance, but it is by indulging in drudgery against which their souls revolt. Matrimony is the only means by which they see their unhappy and humiliating condition may be altered; and, truth to say, this seems a right royal way to the improvement of their state. With a husband, they imagine, they will get the control of a house, the inmates of which will be their willing subjects, the command of a purse, and a greater liberty of action than a single young lady can ever hope to enjoy. Nor is this all; marriage will raise her, a girl thinks, in the estimation of her friends, and effectually prevent her from becoming what nine women out of ten have a horror of—to wit, "an old maid." Then, in addition to this merely practical aspect of the case, there is the purely sentimental one. A damsel may imagine that it will indeed be nice when she has a husband who is never weary of kissing and caressing her, who is ever ready to satisfy her smallest wants, and who lives but to please her. When a maiden is in the state of anxiety to escape from one state of life into another, it is not surprising that she should often be deluded to the extent of imagining herself in love with a youth, when the fact is that true affection for him forms but a small part of the impulses by which she is actuated.

The Virtues of Borax.

The excellent washerwomen in Holland and Belgium, who "get up" their linen so beautifully white, use refined borax as a washing powder, instead of soda, in the proportion of one large handful of powder to about ten gallons of boiling water. They save in soap nearly one-half. All the large washing establishments adopt the same mode. For laces, cambrics, etc., an extra quantity of the powder is used; for crinolines, requiring to be made stiff, a strong solution is necessary. Borax being a neutral salt, does not in the slightest degree injure the texture of the linen. Its effect is to soften the hardest water, and, therefore, it should be kept on every toilet table. To the taste it is rather sweet; it is used for cleaning the hair, is an excellent dentrifice, and in hot countries it is used, in combination with tartaric acid and bi-carbonate of soda, as a cooling beverage. Good tea cannot be made with hard water. All water may be made soft by adding a teaspoonful of borax powder to an ordinary sized kettle of water, in which it should boil. The saving in the quantity of tea used will be at least one-fifth.—[Druggist's Circular.

Cake Making.

It may seem strange to say that in domestic practice it is far more difficult to make plain cakes well, than those apparently complicated productions which have been the subject of former papers. And this is so because the ovens of private houses are not like those of the baker, constructed on scientific principles, and fitted with a well-regulated steam apparatus. Without such an oven it is useless to attempt to produce buns, tea cakes, or even French rolls, with the peculiar soft crust turned out by the confectioner. Very excellent cakes of this class can be made at home, but they will be totally different things from those which we call "shop buns." Sponge, Maderia, and all cakes into the composition of which eggs without yeast largely enter, can be baked as well in the domestic oven as in the baker's, and therefore they, as a rule, do more credit to the cook. Of late years baking powder has been much used for making plain cakes for family use, and the objection to it is, that it is apt to make dry cakes, and to give a peculiar flavor. If, however, the baking powder is made at home, both these objections will be obviated. In the receipts given for cakes made with baking powder, the quantity stated is for that of home mauufacture; but if it is necessary to use that of any of the well-known makers the directions on the packets must in this particular be followed. In using baking powder the greatest care should be taken thoroughly to mix it with the flour, as otherwise little yellow spots appear in the bread or cakes; it is a good plan after mixing to sift the flour together with the baking powder. The great secret of success in making bread and cakes with baking powder lies in mixking with the liquid rapidly, and in bakidg them the moment this is done.—[Mary Hooper.

Care of the Eyes.

In a recent work on "Eyesight—Good and Bad," by R. B. Carter, M. D., of London, the singular theory is developed that a large part of the trouble with their eyes among persons who have reached, or who have passed the middle age of life, is due to the partial disuse of the organism of sight. Mr. Carter maintains that the beauty and efficiency of the eyes depends not a little upon their healthful and active employment. It might be said that the use of one's eye is something which cannot very well be prevented. While a man is awake, unless he resolutely shuts his eyes or has them bandaged, he cannot avoid using them. But use of this kind is not the employment that Mr. Carter requires; there must be mental attention as well as visual impression, otherwise the eyes remain in a state of comparative idleness. The man who retains his eyesight clear and unimpaired to an old age will much oftener be the mechanic, who is compelled by his work to constantly test the acuteness of his sight, then the farmer, who rarely has occasion to look very closely at anything, and who frequently may not exercise his eyes by reading a newspaper from one week's end to the other. It will be perceived that this theory is not the one commonly accepted, and yet Mr. Carter is a specialist whose opinion cannot be lightly contravened. He objects, of course, to an improper use of the eyes under trying lights or to their over-exercise, but he would seem to hold that trouble was likely to arise fully as often by under-exercise as by over-exertion. To give his own words: "That which is true to the organism as a whole is true also of its parts, and the eyes, among others, are best treated by an amount of systematic use, which preserves the tone of their muscles and the regularity of their blood supply." Another point that Mr. Carter insists upon is the necessity of using properly adjusted glasses when the sight begins to fail. It is, he affirms, much more healthful for the eyes to use them than to dispense with their use, since under the latter condition certain muscles of the eye are subjected to an undue and disproportionate strain.—[N. Y. Times.

Washing Flannels.

White flannel may be kept soft and without shrinking if properly washed. Put sufficient soap into boiling water to make a strong suds, and then put in the flannels, pressing them down under the water with the clothes-stick. When so cool that one can bear the hands in the suds, rub the articles carefully, and when well cleansed wring with the hands. If put through the wringer, the nap rolls up into hard knobs, and makes the flannel harsh and unpleasant to the touch. Wring as dry as possible, snap out, stretch and pull each piece as it is wrung out, so as to keep the original size, and throw each piece into another tub of boiling water, into which some French blueing has been thoroughly stirred. If the first suds be strong enough the flannels will retain sufficient soap for the rinsing water. Shake them up and down in this last water with the clothes stick till well rinsed and cool enough for the hands. Then wring once more. As it is well to wash but one piece at a time, put it into the second tub, and place the first suds over the fire to keep boiling hot, until ready to wash the second. Keep the rinsing water hot in the same way while washing the second article.

When flannels are about two-thirds dry bring them in. Snap and pull again, fold as true and evenly as possible, and roll up hard in a clean towel for a little while, and then iron and press till dry.

Never wash flannels in stormy or cloudy weather, and always iron after they have been folded and rolled for over half an hour. If they lie long folded they will shrink. This is not easy work; but if these directions are followed the results will be satisfactory. Blankets washed in this way may be kept soft and white till worn out, instead of the harsh, grey, dirty-looking things one or two careless washings will change them into.

An old gentleman who had provoked the hostility of a fashionable lady, whom he had known in boyhood, was asked by his wife what he had done to incur the lady's displeasure. "Nothing at all," replied the innocent old man; "on the contrary, I was cordial to her, and spoke of the time when I used to draw her to school on a go-cart, nearly half a century ago!" His wife threw up her hands and murmured: "How stupid men are!"

Hard Pronunciation.

One of the difficulties, as well as one of the true beauties, of good reading, is correct and easy pronunciation. As a test of ability to pronounce easily and correctly, the following curious composition was recently placed upon the blackboard at a teacher's institute in Vermont, and a prize of a Webster's dictionary offered to any person who could read and pronounce it correctly. The book was not carried off, however, as twelve was the lowest number of mistakes in pronunciation made: "A sacriligious son of Belial, who suffered from bronchitis, having exhausted his finances, in order to make good the deficit, resolved to ally himself to a comely, lenient and docile young lady of the Malay or Caucasian race." He accordingly purchased a calliope and coral necklace of a chameleon hue, and securing a suite of rooms at a principal hotel, he engaged the head-waiter as his coadjutor. He then dispatched a letter of the most unexceptional caligraphy extant, inviting the young lady to a matinee. She revolted at the idea, refused to consider herself sacrificable to his desires, and sent a polite note of refusal, on receiving which he procured a carbine and a bowie knife, said that he would not now forge fetters hymeneal with the queen, went to an isolated spot, severed his jugular vien and discharged the contents of his carbine into his abdomen. The debris were removed by the coroner." The mistakes in pronunciation, were made on the following words: Sacriligious, Belial, bronchitis, exhausted, finances, deficit, comely, lenient, docile, Malay, calliope, chameleon, suite, coadjutor, caligraphy, matinee, sacrificable, carbine, hymeneal, isolated, jugular and debris.

Sleep.

There is no fact more clearly established in the physiology of man than this, that the brain expends its energies and itself during the hours of wakefulness, and that these are recuperated during sleep; if the recuperation does not equal the expenditure the brain withers; this is insanity. Thus it is that in early English history persons who were condemned to death by being prevented from sleeping, always died raving maniacs; thus it is also that those who are starved to death become insane; the brain is not nourished and they can not sleep. The practical inferences are three:

1st. Those who think most, who do most brain work, require most sleep.

2nd. That time "saved" from necessary sleep is infallibly destructive to mind, body, and estate.

3rd. Give yourself, your children, your servants, give all who are under you the fullest amount of sleep they will take, by compelling them to go to bed at some regular, early hour, and to rise in the morning the moment they *awake of themselves*, and within a fortnight, nature, with almost the regularity of the rising sun, will unloose the bonds of sleep the moment enough repose has been secured for the wants of the system. This is the only safe and sufficient rule, and as to the question how much sleep any one requires, each must be a rule for himself; great nature will never fail to write it out to the observer, under the regulations just given.—*Hall's Journal of Health.*

Condiments.

Condiments are of two kinds. First, food that is pleasant, agreeable, delicious, used more because of its palatableness than because of the substantial nutriment it may contain. Secondly, food that is not specially agreeable to the unperverted taste, but rather the contrary, sharp, pungent, aromatic, bitter or sour, food calculated to irritate and stimulate the nerves of taste, and give relish to other food. In this article we shall speak principally of the former kind.

Healthy, strong, hard-working, large-eating men with voracious appetites and the digestion of an ostrich, rather pooh, pooh! at nicknacs, and regard them as effeminate superfluities, that women and children may like, but as unworthy the attention of strong, practical men. Another class, rather of the stoical order, who believe man's duty is rather to suppress and deny the natural tastes and wants, than to develop them, cry down condiments as unnecessary luxuries, requiring time and means in their preparation that had better be devoted to the improvement of the intellect.

Both of these classes overlook one or two important philosophical principles, namely: that a higher order of thought and emotion requires a higher order of nutrition, and that the emotions and imagination have a powerful influence over digestion and assimilation.

Pies, cakes, tarts, preserves, creams, sauces, &c., through the imagination, stimulate secretions of saliva, affect the gastric juice, give pleasurable emotions, and cause the functions of digestion and assimilation to proceed happily and regularly and in such ways usually conduce to health, *provided always*, that they are properly compounded and prepared. If they are heavy, or composed of villainous ingredients, they should be let severely alone. Take an ordinary custard, composed of pure milk, eggs and sugar, and it is not only palatable and wholesome, but very nutritious. Milk and eggs are both complete foods, rich in albuminoids, capable alone of sustaining life, and building up the wasted tissues, while sugar is an excellent fuel to sustain the heat of the vital system. A judicious use of this class of condiments will make us healtheir, happier and wiser, but no such affirmations can be made of condiments of the second class.

Economy Again.

Do not be afraid of my economy, good readers, taking it for the opposite thing, and condemning it accordingly. We need to learn that a full, generous expenditure is often the real economy. The *very* poor, whose "poverty is their destruction," as the wise man saith, can make nothing out of nothing. But most of us have a capital of some kind—if not much money, then perhaps Mrs. Stowe's added sense of "faculty," which in the midst of the smart things it does, goes to the foundation, finding out the best way of doing things. We shall not find Dame Faculty "doing her own housework" with leaky tubs and pails, a broken-down stove, a breathless pump, or any other poor old implements. She would say: "Away with such trash. There is no economy in it. Get some clean, new, strong things. Get some machinery in here which ought to be brought to every woman's help in these days. Supposing you are economizing for some darling object, or think you are, this is no way to do it. You are working slowly, because inconveniently, therefore unprofitably. Time is lost, which is money. Health and patience are lost, which are more. You have 'robbed Peter to pay Paul.'"

Sometimes there is a lack of economy in buying. We may feel obliged to buy very cheap articles to supply present necessity. Of course, pretty prints, and the like, are nice enough for anybody, but I refer now to what we call our "best" outfit. If we can prevail upon ourselves to wait, without suffering, until our purse shall have a comfortable sum in it, we shall gain in the end by then buying really good articles. Good wearing apparel then becomes a luxury which we have fairly earned and can honestly enjoy in the greater sense of comfort, respectability, and self respect that it gives us. Then it long outwears the flimsier fabrics, and tastefully renovated, is reworn till it pays for itself many times, if its cost is counted of making up the several cheaper suits otherwise necessary in the meantime. The same rule obtains in building, and in the selection of household furnishing, not only in the more perishable things, as bedding and upholstery, but in the furniture proper, even if few bits can be got at a time. Strong, well-finished, comfortable articles, with as much of added elegance as you can afford, though quite expensive, maybe, are purely and highly economical in the pleasure and comfort they bring, in the value they gradually acquire through long pleasing associations, and further, in the delightful flavor of antiquity they slowly absorb, to be enjoyed by the original owners, and more and more by posterity.

As to the matter of cookery, on which so much is said, I will suggest but one thought. It is not wasteful, as some suppose, to use some ingredients which at first may seem too costly, if by that means a dainty, acceptable dish may be made of good, plain materials otherwise unappetizing, or perhaps wholly thrown away. Economy should be rationally studied in the buying of provisions for the family, It is money out of pocket to invariably choose poor groceries. They do not "spend" well, and they are bad for the stomach and the disposition.

Economy not only must favor the pocket, but the heart. What the heart and the soul lose is loss all the way down through the minutest material details of existence, and worse still, through all the way up. HOPE HARVEY.

Brigham Young and his Family.

A reporter for the St. Louis *Republican* has had a talk with a daughter of the late Brigham Young, the Mormon leader, who is now a Mrs. W. T. Harris. Mrs. Harris has been away from Mormonism for some time. She tells of the prophet's family-life as follows:

She said that of the forty-seven children, each and every one were splendid specimens of physical health and strength. There was not a weak or sickly one among the lot, and all were possessed of a good amount of intelligence. She spoke in a very admiring way of her brothers; told how one was graduated with high honors from West Point, two from the Troy (N. Y.) college, and of another who attended the Naval Institute at Annapolis.

"How did we live together in that great house?" she asked, in answer to a question; "Why, most happily."

"Nineteen wives and forty-seven chiidren in one house, and no quarreling?" the reporter said, in astonishment. "How in the world did you get along so well together?"

"My father's ruling hand, I think, had a good deal to do with it."

"In what way?"

"He taught us to love one another. Every morning wives and children met in the parlor, where we had prayers and singing. People have often asked me how in the world my father knew all his children and wives, but I can tell you, if a single one was missing at prayers he knew it, and found out where he or she was."

"And did you really all live in one family?"

"Yes, all. Our house was like a great hotel, and we were the guests. Our father was a great manager, and very practical in superintending his household affairs. Every person had her place, and without instructions, but by a sort of understanding, kept it. Our rooms opened into a large hall, like the one in the hotel here, but larger, and when we wanted anything from sisters, brothers, or wives, we went into this room or that at will."

"And you never quarreled with each other, or had any trouble in the house?"

"Never; but hold. Yes, we did have trouble. It came with Amelia, my father's seventeenth wife. She was from the east, and married father for his name and wealth. She was a highstrung woman, and should have stayed in the east. My father thought a great deal of her, so much that he built her what was afterward called Amelia Castle."

Good Coffee.

One would suppose that such a common drink would be always well made, as it has to be done in every house at least once a day, but alas, how different is our experience! The muddy stuff, full of grounds, offered to us, even in houses where everything else is well done, is a daily disappointment.

People try all sorts of coffee, all kinds of coffee-pots, and yet the result is anything but satisfactory. We think we can help a little in this matter, and hope any one who will follow these simple directions will be able to provide with very little trouble that, at present, rare luxury, a good cup of coffee. To every two pounds of good ground Mocha coffee, add half a pound of chicory. Use the old block tin French coffeepot, called in England the percolator, to be had in any house-furnishing ironmonger's shop. Mix the white and shell of one egg with three tablespoonfuls of the ground coffee and chicory, add one pint of water and let it come to the boil, but remember, never let it boil; if not strong enough, pour out the coffee, and put it in at the top over the grounds, let it heat up again and it will be ready. Pour it into the coffee pot or urn that goes to the table and serve at once. An urn that has a spirit-lamp is the best. Provide a quart or two of milk and some cream, have them both steaming hot, and now if you do not get a good cup of coffee, it will be the fault of the person who serves it at the table. Fill the cup three quarters full of milk, add the coffee to the taste of the person for whom it is being poured out, weaken with milk, but never weaken with water; this spoils the coffee at once. An objection may be made to the quantity of milk used; the only answer is if you want a good cup of coffee, milk is indispensable and strong coffee a necessity. The difference in result is well worth the difference in expense. For black coffee twice the amount of water or more is used, as it does not require to be more than half as strong, as for coffee with milk.—[Mrs. Fredrick.

Minnie May's Department.

My Dear Nieces,—Year after year passes, Christmas after Christmas comes, and during those intervals how many events occur which should awaken solemn meditation within us? You and I are still living, gentle reader, but how many are there, since I addressed you at last Christmas season, who have dropped their eyelids forever upon the things of this earth? Numberless ties have been severed, numberless hearts rest from their pantings and sleep, "no more to fold the robe o'er secret pain." Such is life, made up of successes and reverses, of joys and sorrows, of brightest triumphs, and bitterest disappointments. But wherefore all these moralizings and serious reflections? ask some of my dear nieces. Because, in the midst of our pleasures we should never forget that we are mortal, and in the midst of our merriment there should be wisdom. But my sermon is now over. Those who have read it may at once address themselves to the rational enjoyments of the season. It has come again, the beautiful Christmas opportunity for giving presents, and I do hope, my dear nieces, that you will try to make this a happy Christmas, and are now preparing gifts; for every face which you contribute to set sparkling at Christmas, is a reflection of that goodness of nature which generosity helps to uncloud, as the windows reflect the lustre of the sunny heavens. Every green bough with which you adorn your houses, is a piece of natural piety as well as beauty. Every harmless pleasure, every innocent mirth, however mirthful, every forgetfulness of even serious things, when they are only swallowed up in kindness and joy, is "wisest, virtuousest, discreetest, best," and Milton's wife, who suggested those epithets to her husband, would have thought so too, if we judge of her hospitality by the poet's account. If, however, we have lost many of the old English customs, we have also retained some of the best, among them that of making it a time of family reunion, of bringing back the wandering ones to the paternal hearth, that rallying place of love and affection. We have, too, the traditional roast beef and plum pudding, the latter so exclusively English in its preparation that we are told of a French King, who, wishing to do honor to the English Ambassador at his court at Christmas, ordered his cook to make one by a receipt which he had taken much pains to procure. The weight of the ingredients, the size of the copper, the quantity of water, the duration of time, everything was attended to except one trifle—the King forgot the cloth—and the pudding was served up like so much soup, in immense tureens, to the surprise of the Ambassador, who was, however, too well bred to express his astonishment.

Sincerely do I hope that the hearts of all my nieces and friends may be full of joy and gladness; all kinds of happiness do I wish you. May grand parents and parents gather their children around them and behold in them sources of joy and comfort. May the boys and girls be delighted with the handsome gifts, consistent with the donors. Moreover, may there be the best possible cheer which Christmas can bestow for every board, whether in cottage or in mansion, hovel or hall. These are the fervent wishes of

Minnie May.

Answers to Inquirers.

Mabel.—Wedding breakfasts are usually cold, and consist of roast fowls, turkey, beef, creams, jelly, blanc manges, salads, etc. A bride need not wear a veil, as she may be married in a bonnet or a travelling dress if she wishes it.

Agnes.—To ice a cake you must allow the whites of four eggs and one ounce of fine starch to every pound of loaf sugar. Beat the eggs to a fine froth, and gradually sprinkle in the sugar, which should be finely powdered; then beat well till smooth, and with a spoon lay the icing very evenly over the cake. Then place it in a very cool oven that it may harden without becoming discolored.

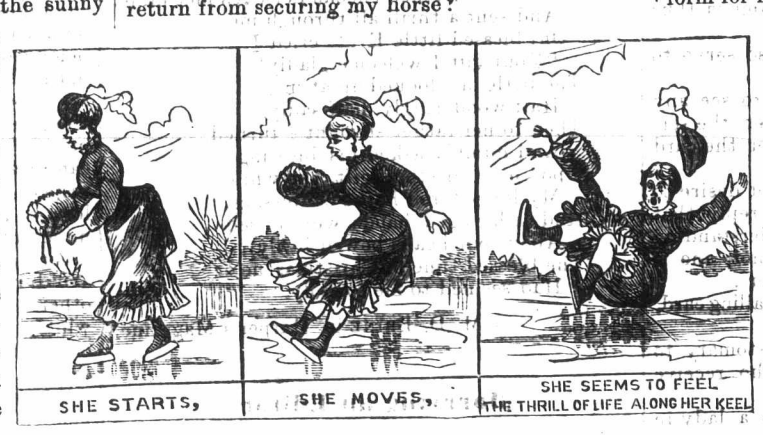
Mary.—You are certainly too young to learn solo singing at thirteen. Wait till sixteen or you will ruin your voice. Sing for amusement if you like, not as a lesson, with suitable training.

Ida.—The best remedy for low spirits is to attend to your digestion and take care that the liver be not at fault; to be out a good deal, to associate with cheerful companions of your own age. Never be idle for a moment, and take regular daily exercise without over-fatigue. Try to make it one of your objects in life to make others happy.

Plain Ann.—Among a company of young ladies or when in conversation with a lady friend, if the lower limbs of females are called in question, would it be speaking too plainly to use the word "legs?"

It is not usual to discuss a lady's legs in company, but if necessary to do so there would be no impropriety in using the word. For instance, if a lady had been thrown from her carriage and broken her leg, or even both her legs, there would be no harm in stating the fact to a room full of ladies, but as a rule "the lower limbs of females are not often called in question" in company.

A. H. S.—If I take a lady to church where she is a stranger, should she enter alone or await my return from securing my horse?



She should do whichever is most agreeable to herself. You might ask some one to show her your pew if necessary.

RECIPES.

We give you the same recipes this year for Christmas pudding, Christmas cake and mince pies, as many told us they were very good, and we have not heard of better. It is now quite time to have it made, as plum pudding improves for being kept a few weeks before it is required.

CHRISTMAS PUDDING.

2 cups of bread crumbs; 2 cups suet; 4 cups raisins; 4 cups currants; 4 ounces lemon and citron peel, mixed; 2 nutmegs; 4 eggs; 2 wineglasses brandy; 2 cups of beer; a little salt; 2 tablespoonfuls of mixed essences; 2 cups of brown sugar; 2 tablespoonfuls of molasses; about three cups of flour, or enough to thicken.

This quantity requires from 12 to 14 hours of constant boiling. One great fault with many rich puddings is insufficient cooking. It is well to partly cook a day or even weeks before they are required, and re-heat by steaming or boiling.

CHRISTMAS CAKE.

Requires 9 eggs, 2 lbs. currants, 2 lbs. raisins, 1 lb. butter, ½ lb. citron and lemon peel, mixed, half a tea-cup of brandy, 2 nutmegs, 1 lb. brown sugar, 1 tablespoonful molasses; a tablespoonful of mixed essence (which should be almond, vanilla and lemon); add flour enough to stiffen; when all the ingredients are thoroughly mixed, and tins ready and oven at the proper heat, dissolve in a tablespoonful of hot water a piece of ammonia the size of a nutmeg and stir all quickly together.

GOOD MINCE MEAT.

One lb. raisins chopped, 1½ lbs. currants, 1 lb. brown sugar, 2 lbs. apples minced fine, 1 teacup of brandy, 2 nutmegs, 1 teaspoonful of cinnamon and allspice, ½ cup molasses, ¼ lb. lemon and citron peel minced fine, a tablespoonful of mixed essence, ½ lb. lean beef minced fine.

SEASONING FOR TURKEY.

Two ozs. butter, 1 oz. flour, one half pint stock, 2 teaspoonfuls pepper, 4 ozs. beef suet, 7 ozs. bread crumbs, 1 egg, 1 teaspoonful chopped parsley, 1 heaped teaspoonful thyme.

Dora.

Soon after the close of the last war Captain X was appointed a justice of the peace in a country place not far from Raleigh, North Carolina.

His father had been a planter in a rather small way, and his son the captain had acquired considerable experience in the business of managing real estate, drawing up deeds, etc., during the father's lifetime, and then in settling the estate after his decease. Further than this he had no legal knowledge, and, indeed, his entire stock of "book-learning" was small and poorly selected, but any lack in general information was fully made up, for his uses, by self-assertion. Late one afternoon, as he was riding home from Raleigh, he met a young woman and two men, who hailed him and inquired if he was Captain X. The young woman and one of the men wished to be married at once. The other had come as a witness. They had procured the necessary license, but an irate father was on their path, and swore that they never should be married. It was considered on all accounts safest to have the ceremony performed without delay, and try pacification afterward.

Now the captain had never witnessed a marriage, and naturally had no very clear idea of what was usual in such cases. He remembered having seen a book about the house years before with a form for marriage in it, but what the book was and where it was he could not remember.

"Why," said he, when he told the story afterward, "I knew the 'Postles' Creed and Commandments, and at first I thought I'd use 'em to begin on, but then I reckoned, on the whole, they was too durned solemn."

He asked the couple to come to his house, secretly hoping that he could find that book; but they declined for the reason that the matter admitted of no delay.

A less assured man would have been sorely perplexed, but not he. He lost no time in removing his hat, and remarked, "Hats off in the presence of the court." All being uncovered, he said, "I'll swear you in fust off all. Hold up your right hands."

"Me too?" asked the friend of the groom.

"Of course," said the captain, "all witnesses must be sworn. You and each of you solemnly swear that the evidence you shall give in this case shall be the truth, th' 'ole truth, an' nothin' but the truth, s'elp you God. You, John Marvin, do solemnly swear that to the best of your knowledge an' believe you take this yer woman ter have an' ter hold yerself, yer heirs, exekyeters, administrators, and assigns, for your an' their use an' behoof forever?"

"I do," answered the groom.

"You, Alice Ewer, take this yer man for yer husband, ter hev an 'ter hold forever; and you do further swear that you are lawfully seized in fee-simple, are free from all incumberance, and hev good right to sell, bargain, and convey to the said guarantee yerself, yer heirs, administrators, and assigns?"

"I do," said the bride, rather doubtfully.

"Well, John," said the captain, "that'll be about a dollar'n fifty cents."

"Are we married?" asked the other.

"Not by a durned sight ye ain't," quoth the captain, with emphasis; "but the fee comes in here." After some fumbling it was produced and handed to the "Court," who examined it to make sure that it was all right, and then pocketed it, and continued: "Know all men by these presents, that I, Captain X, of Raleigh, North Carolina, being in good health and of sound and disposin' mind, in consideration of a dollar n' fifty cents to me in hand paid, the receipt whereof is hereby acknowledged, do and by these presents have declared you man and wife during good behavior, and until otherwise ordered by the court."

The men put on their hats again, the young couple, after shaking their benefactor's hand went on to meet their destiny and the irate father, while the captain rode home richer in experience.

A Code of Card Etiquette.

The card should be printed or written very plainly.

White cards, without any embellishment, are regarded as in the best taste, avoiding extremes in size.

The gentleman's card should contain nothing except the name and address of the caller, in general, omit the address.

The titles of "Hon.," "Mr.," "Esq.," etc., are not allowed on calling cards.

"Mrs.," or "Miss" are admissible on ladies' cards. Professional titles, such as "Dr.," "Rev." and "M. D.," etc., are admissible on gentlemen's cards.

A military title, such as "Lieut.," "Capt.," "Gen.," "U. S. N.," etc., is also admissible.

The handsomest style is that which is engraved; next that which is beautifully written; next comes the printed card, in text letter.

At a hotel, when calling on any one, send your card and await a reply in the reception-room.

If two or more ladies are in the household, the turning down of a corner signifies that the card is for all the ladies.

The lady in mourning who may not desire to make calls will send mourning cards to her friends instead during the season of retirement from society.

A gentleman calling on a lady and she being absent, or not at home, but her daughter being in the house, the gentleman will send his card, instead of calling, as it is not customary for young ladies to receive calls from gentlemen unless intimately acquainted.

It is well to have cards in readiness at every call.

It is quite well to send in your card by a servant, as the mispronunciation of the name is thus avoided.

If a lady is not at home, it will also serve to show that you have called.

The hostess should, if not desiring to see any one, send word that she is engaged when the servant first goes to the door, and not after the card has been sent up.

It is admissible, when a lady does not desire to see a caller, to instruct the servant to reply that "the mistress is not at home," the understanding being that, whether in the house or not, she is "not at home" for the reception of callers.

A business card is inadmissible as a calling card, unless the call be purely one of business.

In making New Year's calls it is customary to present a card to each of the ladies who receive with her, as well as to the hostess.

In taking a letter of introduction to a lady in the city, if you send it to her by the servant who answers the bell, also send your card with the same.

The card being left in your absence is the equivalent of a call. A call is now due from you to the person leaving the card.

In leaving the city for a permanent residence abroad, it is customary to send out cards to intimate friends, adding to the name "P. P. C."—Presents Parting Compliments.

After receiving an invitation for, or attending, a large party or ball, it is customary to call soon afterwards on the hostess, making a brief stay, or leaving a card.

Training Fuchsias.

Did you ever see anything more graceful than a handsomely shaped fuchsia, starred with its myriad pendant gems? I never did. But I must confess I have seen some straggling, awkward, twisted fuchsia plants which fairly distressed me. Truly, "As the twig is bent, the tree's inclined." No plant is more obedient to training in youth than a fuchsia. Take the little upright plants, pinch out the centre, and in place of one there will spring out two, often three shoots. Let these branches make about the same growth, and repeat the process to each, keeping the side branches of equal length, or tapering like a pyramid; or by clipping off at all the lower limbs and letting the upper ones droop over, you have an umbrella. Indeed, you can have any shape you please, if you begin with a young plant. Besides, the fuchsia likes the pruning and will reward you with fourfold more blossoms. I once saw it recommended to put a few rusty nails in fuchsia pots, as fuchsias like copperas. I had some water which had been standing for months in an iron kettle till it was impregnated with iron. I put a cupful of this in a pail of water and occasionally gave it to my fuchsias. How they liked it! And how they blossomed! Try it.—[Horticulturist.

The Christmas Gift.

Around the Christmas-tree we stood,
And watched the children's faces,
As they their little gifts received
With childish airs and graces.
We grown folks had our share of fun
In making wee ones merry,
And laughed to see the juveniles
Kiss 'neath the 'holly berry.
Beside me sat sweet Bessie Moore,
A lovely dark-eyed maiden,
While near her stood our little Eve,
Her arms with love gifts laden,
Until around the room she went,
The blue-eyed baby, shyly.
And, blushing red, into each lap
Her offerings dropped slyly.

But when to me the darling came
All empty handed was she,
And when I asked, "Why sight me thus?"
She answered, "Oh, because we—
She dinna know you tumming here!"
And then, with blue eyes shining,
To Bessie's side she went, her arms
Her sister's neck entwining.
"But something I must have," said I,
"My Christmas-night to gladden."
A shade of thought the baby face
Seemed presently to sadden,
Till all at once, with gleeful laugh—
"Oh! I know what I do, sir!
I've only sister Bessie laft,
But I'll div her to you, Sir!"

Amid the laugh that came from all
I drew my new gift to me,
While with flushed cheeks her eyes met mine.
And sent a thrill all through me.
"Oh! blessed little Eve!" cried I:
"Your gift I welcome gladly!"
The little one looked up at me,
Half wonderingly, half sadly.
Then to her father straight I turned,
And humbly asked his blessing
Upon my Christmas gift, the while
My long-stored hopes confessing,
And as his aged hands were raised
Above our heads bowed lowly,
The blessed time of Christmas ne'er
Had seemed to me so holy.

—M. D. BRINE in Harper's Magazine.

Marrying an Editor.

Yes, I'm Mrs. Snow, an editor's wife. I well remember when Mr. Snow asked me to become his wife. I confess I loved Mr. Snow, and thinking it would be a fine thing to be the wife of an editor, I said "Yes" as pretty as I knew how, and I became Mrs. Snow. I have seen ten years of married life, and find my husband to be an amiable, good-natured man. He always spends his evenings at home, and in that respect is a model man, but he always brings a pile of exchanges which is only limited by the length of his arms, and reads while I patch the knees and elbows of pantaloons or coat. After we have had a Quaker meeting of an hour's length, I break the stillness by asking:

"Mr. Snow, did you order that coal I spoke to you about?"

"What did you say, my dear?" he asks after a minute's silence.

"Did you order that coal I spoke to you about?"

"Indeed, my dear, I am sorry, but I forgot all about it. It shall come to-morrow.

Another hour's silence, which is relieved by the baby's crying, and rather liking the noise I make no effort to quiet him.

"My dear," says Mr. Snow, after it has cried a minute or so, "you had better give the baby some catnip tea to quiet him; he troubles me."

The baby is still. Another hour passed without a breath of noise. Becoming tired, I take a lamp and retire for the night, leaving Mr Snow so engaged with his papers that he does not see me leave the room. Toward midnight he comes to bed, and just as he has fallen asleep the baby takes a notion to cry again. I rise as quietly as possible and try to still him. Then another begins to scream at the top of his lungs. There is no other course but to awake Snow, so I say:

"Mr. Snow! Mr. Snow!"

The third time he starts up and cries, "What, Tom, more copy?"

The Idleness of Girls.

A great mistake that many girls are making, and that their mothers are either encouraging or allowing them to make, is that of spending their time out of school in idleness or in frivolous amusements, doing no work to speak of, and learning nothing about the practical duties and the serious cares of life. It is not only in the wealthier families that girls are growing up indolent and unpractised in household work; indeed, I think that more attention is paid to the industrial training of girls in the wealthier families than in the families of mechanics and people in moderate circumstances, where the mothers are compelled to work hard all the while. "Within the last week," says one of my correspondents, "I have heard two mothers, worthy women in most respects, say—the first, that her daughter never did any sweeping. Why, if she wants to say to her companions, 'I never swept a room in my life,' and takes any comfort in it, let her say it; and yet that mother is sorrowing much over the short comings of that very daughter. The other said she would not let her daughter do anything in the kitchen. Poor deluded woman! She did it all herself instead!

The habits of indolence and of helplessness that are thus formed are not the greatest evils resulting from this bad practice; the selfishness that it fosters is the worst thing about it. How devoid of conscience, how lacking in all true sense of tenderness or even of justice, a girl must be who will thus consent to devote all her time out of school to pleasuring, while her mother is bearing all the heavy burdens of the household. And the foolish way in which mothers sometimes talk about this, even in the presence of their children, is mischievous in the extreme. "Oh! Hattie is so absorbed in her books, or her embroidery, that she takes no interest in household matters, and I do not like to call upon her." As if the daughter belonged to a superior order of beings, and must not soil her hands or ruffle her temper with necessary housework. The mother is the drudge; the daughter is the fine lady for whom she toils. No mother who suffers such a state of things as this can preserve the respect of her daughter, and the respect of her daughter no mother can afford to lose. The result of all this is to form in the minds of many gifted girls not only a distaste for labor, but a contempt for it, and a purpose to avoid it as long as they live by some means or other. There is scarcely one letter I have received which does not mention this as one of the chief errors in the training of our girls at the present day. It is not universal, but it is altogether too prevalent. And I want to say to you, girls, that if you are allowing yourselves to grow up with such habits of indolence and such notions about work, you are preparing for yourselves a miserable future.—*Rev. W. Gladden.*

Eating With a Knife.

A subscriber, says the Golden Rule, asks us to write an article on "Table manners," saying: "We have many authorities on the subject, but I would like to see a sensible, intelligent opinion as to how far the knife can be made use of in eating without one's being considered ill-mannered," the shortest answer is the best,—*not at all*, in polite society. But what our correspondent perhaps means, is: What sense or reason is there in the prohibition, by society, of the use of the knife in eating? That is a harder question; but the sufficient fact is that society doesn't need to furnish reasons. In the realm of etiquette, whatever is, is right. As a matter of fact, it is doubtless alarming or unpleasant to many people to see a knife put to the mouth; it suggests a possible cut, and too nearly resembles shoveling in the food. A man may know that he will not cut himself, and declare that he lifts no more food than his neighbor does on a fork. But society says that it is ill-bred, and until the custom changes people had best conform, unless it is a matter of conscience with them. As Hamerton says, in a parallel case, you may see no reason why you can not come to the dinner-table with your shooting boots and jacket on, and bring your dog with you, if you are clean and your dog is well-bred. Very well. Society will not argue the point, much less concede it. It will simply drop or taboo you. If it is essential that a man shall eat with his knife, or in his shooting jacket, or that he shall take up his plate in his hands, or drink out of the bottle, or discard both knife and fork on the plea that "fingers were made before forks," he had better dine alone. That is the way it seems to us. Conformity is the best wisdom in minor and unessential matters of custom and fashion.

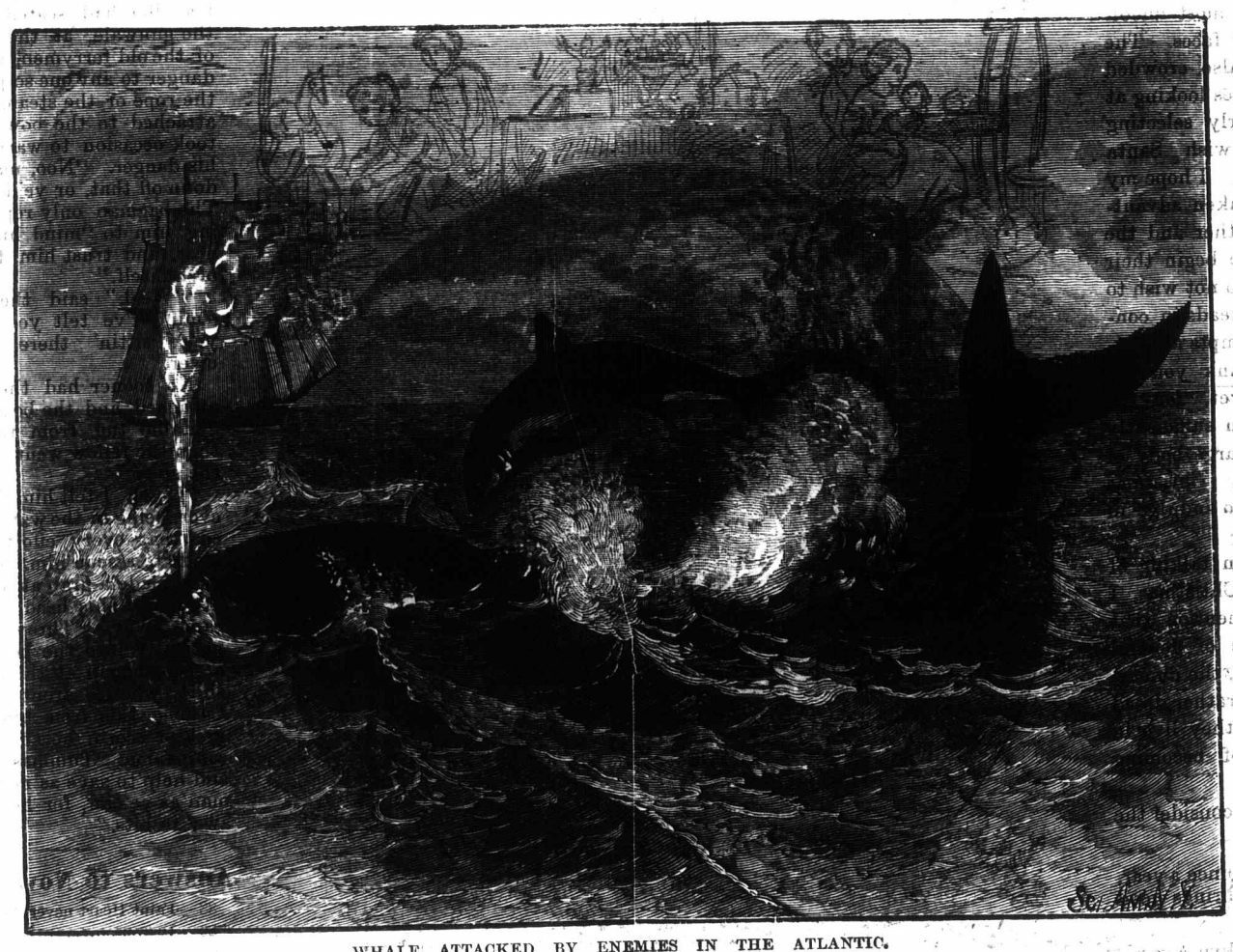
The Maritime Provinces—No. 5.

If any of our western or northern subscribers were to take such a journey as we took during the past summer in the Maritime Provinces, they would be apt to find some information, and see sights that might not, strictly speaking, necessarily find their way into a purely agricultural paper. Therefore, if we diverge from steel plows and chilled mould boards, and talk with you about the finny tribe that plow deeper than you are accustomed to, we do not think you will object; at least you should not, as you ought to know more about our friends in these Provinces. It is a true saying that one-half of the world does not know how the other half lives. We go further with our belief, and publicly say that one-half the people in this Dominion do not know how the other half lives. Fishing, mining and lumbering are all of great interest and importance, and we purpose giving you a few notes that may amuse as well as interest.

We will now relate a few facts about whales, procured from as reliable men as any of the doubters may be who read these remarks We gleaned these facts some from eye-witnesses and some when we were in Prince Edward Island. Whales being the largest fish, we will speak of them. They are occasionally seen near the land, but not often. A few years ago a whale entered one of the bays near Charlottetown—a river ran into the bay. The inhabitants were all excitement, and a steamboat gave chase to the whale, driving it up the river. The tide was ebbing, and Mr. Whale, struggling to get away from the boat, ran into such shallow water that he could not swim. The sailors ran out a hawser, or large rope, and fastened it to the whale by the blow hole on the top of his head. On the return of the tide they wished to tow the whale into Charlottetown, but on starting they found they had caught a Tartar, for the whale had the steamboat instead of the steamboat having the whale. They could not steer the steamboat, as the whale could turn it any way he liked to swim. However, they succeeded in killing the whale, which was only a small one.

On another occasion a whale got up into one of the bays at ebb-tide, and got entangled among sea weed. The farmers went out with pitch-forks and scythes, and killed it. Everything in this world has its enemies, and this leviathan of the deep, having the force of a steam-engine, and the power to roam from ocean to ocean—from the North to the South Pole—is attacked and killed by fish that are small and insignificant compared to him.

A few years ago a light-house keeper on the Island was surprised at the sound of a noise resembling the bellowing of a bull. He looked to see where the sound came from, and in a short time a whale put its head above water and made another bellow. Another fish was seen to spring high out of the water and descend on the whale's head, threshing him most severely on the top of the blow hole. This was repeated many times until the water in the vicinity became reddened by the blood of the whale. It was a sword fish. This fish has a long, hard bony substance projecting quite a distance from his nose. The fish is long, active and powerful. It would descend below the whale, and then with all its force rush at the whale's belly, driving its sword a long way into the poor animal, which would then rise to the surface and bellow. The thresher, for that is the name of the other fish, would then spring again into the air and descend on the whale's head and thresh his blow hole. This fight continued for over an hour, and three days afterward the whale was washed ashore on the beach—dead. Its belly had been literally riddled with holes by the sword-fish.



WHALE ATTACKED BY ENEMIES IN THE ATLANTIC.

We must leave you to imagine why the sword-fish and thresher attacked the poor whale. There is food for each reflecting mind. Many things happen on this earth that we are unable to explain satisfactorily. The inhabitants of the great deep must fill your minds with wonder if you have contemplated them half as much as we have.

We publish an illustration of a whale attacked by the sword-fish and thresher, as witnessed by Lord A. Campbell, of Belleisle.

Our Calendar for 1881.—Should any of our subscribers require one or more copies of our Calendar, as on second cover page, for posting up, we will send them on receipt of application.

Humor in the Family.

Good humor is rightly reckoned a most valuable aid to happy home life. An equally good and useful faculty is a sense of humor, or the capacity to have a little fun along with the humdrum cares and work of life. We all know how it brightens up things generally to have a lively, witty companion, who sees the ridiculous points of things and who can turn an annoyance into an occacion for laughter. It is a great deal better to laugh over some domestic mishaps than to cry or scold over them. Many homes are dull because they are allowed to become too deeply impressed with a sense of the cares and responsibilities of life to recognize its bright, and especially its mirthful side. Into such a household, dull but good, the advent of a witty, humorous friend is like sunshine on a cloudy day. Whilst it is always oppressive to hear persons constantly striving to say witty and funny things, it is comfortable to see what a brightener a little fun is—to make an effort to have some at home. It is well to turn off an impatient question sometimes, and to regard it from a humorous point of view instead of becoming irritated about it. "Wife, what is the reason I can never find a clean shirt?" exclaimed a good but rather impatient husband, after hunting all through the wrong drawers. His wife looked at him steadily for a moment, half inclined to be provoked, then with a comical look she said: "I never could guess conundrums; I give it up." Then he laughed and they both laughed, and she went and got his shirt, and he felt ashamed of himself and kissed her, and then he felt happy; so what might have been an occasion for hard words and unkind feelings became just the contrary, all through the little vein of humor that cropped out of the surface. Some children have a peculiar faculty for a humorous turn to things when they are reproved. It does just as well oftentimes to laugh things off as to scold them off. Laughter is better than tears. Let us have a little more of it at home.—[Manufacturer and Builder.

Abundant Hair.—Japanese women are very proud of their hair, which is black and luxuriant. They cultivate and arrange it with great care by brushing their tresses back from the forehead and gathering them in a plaited topknot, covered with flowers, spangles, and hair-pins of gold, silver and tortoise-shell. Rich and poor are alike proud of their *coiffure*, and the kuli-woman in rags devotes the same attention to her hair as any great lady. To preserve the elaborate structure from being disturbed, women during sleep rest their necks on a padded fork. There is no difference between single and married women in wearing their hair, as in China; and their respective social status is indicated by the position of the bow in which the waist scarf is tied, girls wearing it at the back, matrons in front. The latter likewise shave their eyebrows, and dye their teeth black. Girls use rouge freely, and sometimes gild their lips.

Uncle Tom's Department.

My Dear Nephews and Nieces.—Allow me to impart some good news to you, and that is that "Christams is coming." Now, is not this news, and are you not delighted to hear it? I have hardly commenced to think about Christmas as yet, and find it rather difficult to imagine that it is so near. However, I presume that when I can bring myself to realize the fact, I shall be as elated as every one else. It is really true though, for we have now fully entered upon the last month of the year, and we will soon have to say farewell to 1880. Christmas, a time of general rejoicing, is welcomed by all, whether rich or poor; and when we think of the event which it commemorates, there is no reason why it should not be so. I suppose you are already anticipating the presents you hope to receive, and are also thinking about what you intend giving. Now is the time that mysterious looking parcels are conveyed surreptitiously into the house, and everybody wears the most uncon scious look on their faces. The shop windows are also crowded with happy little faces looking at the toys, and eagerly selecting those they would wish Santa Claus to bring them. I hope my little friends have taken advantage of the cold weather and the "beautiful snow" to begin their amusements, but I do not wish to hear of any broken heads in consequence of first attempts at skating; however, I think you are perfectly safe as yet, for the weather has not been sufficiently cold to freeze any large body of water. Perhaps by Christmas you may be able to indulge in this pastime.

While I have been talking of all these plans for Chtistmas, I have forgotten to mention that though it is a time of general rejoicing amongst us, the numerous family of fowls rather dread it than otherwise, as they live in hourly expectation of becoming headless.

Most of our friends consider the maxim:

"Christmas comes but once a year,
But when it comes it brings good cheer,"

a very good one, and live accordingly.

So now wishing you a very Merry Christmas and plenty of "good cheer," I am, your

Uncle Tom.

PUZZLES.

94—BURIED ENGLISH TOWNS.

Do you know Carl is leaving us;
Frank, leave your card if Fred is from home;
Ay, Rose, to-morrow will be a sorry day;
A bat has lately been seen near the old church tower.

95—BIDDLE.

Though delicate and weak,
I'm wanting not in sense
I do, though silent, speak,
And ever need defence.
By day I shun whate'er is bright,
And hang a curtain down at night.

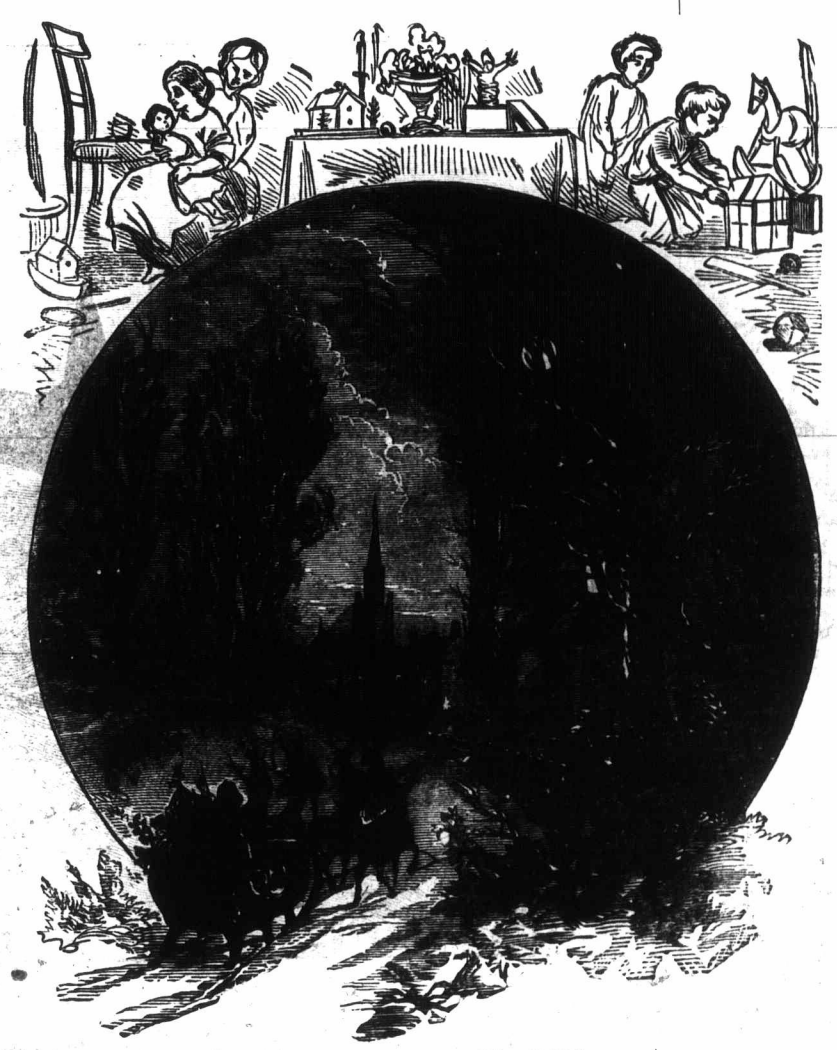
96—CONUNDRUM.

Why is a boy that is learning to cipher like dog with a broken leg? J. E.

97—ILLUSTRATED PUZZLE.

98—ENIGMA.

My first is in mat, but not in rug;
My second in wasp, but not in bug;
My third is in red, but not in blue;
My fourth is in false, but not in true;
My fifth is in wren, but not in owl;
My sixth is in bird, but not in fowl;
My seventh is in calm, but not in rough;
My eight is in shawl, but not in muff;
My ninth is in poem, but not in ditty,
My whole is a European city.



THE ARRIVAL OF SANTA CLAUS.

The above illustration represents the entrance of Santa Claus into a village on Xmas eve. Let us picture to ourselves the entire scene. It is a clear frosty night, and along a road that is now completely deserted (for it is after midnight), a little old man with snow-white hair, may be seen rapidly approaching, in a miniature sledge, drawn by four reindeer. His eyes are glistening with merriment, as he imagines the delight of his little friends on receiving the presents with which his tiny sled is crowded. He is now within the village, and, a word from their master, the reindeer have already gained the roof of the first house. In a twinkling St. Nicholas is down the chimney and in the room, quickly filling the stockings that have been hung up by the juvinile members of the household. His task completed, he departs as noiselessly as he entered, and is out of sight in a moment. I can assure you he waites no time, for he has many houses to visit before morning. Let us now take a peep, on Xmas morning, into one of many houses visited by St. Nicholas the proceeding night. This thought is suggested by the remainder of the picture. A happy band of children are eagerly discussing the merits of th different presents. They have been scarcely ab e to sleep all night in anticipation of the next morning, and all agree in saying that Santa-Clause has brought them exactly what they wanted. Here I will leave the rest of my story to the imagination of my readers; I think that to all those who have experienced any of the pleasures of Christmas will not be a very difficult task.

Before the erection of the new pier at the Castle Rock, passengers from Dumbarton had to be conveyed down the Leven to the Clyde steamers by a ferry-boat rowed by two sturdy and generally elderly ferrymen. On one occasion an English commercial traveller had seated himself on the gunwale, at the stern. One of the old ferrymen, aware of the danger to any one so placed, when the rope of the steamer should be attached to the bow of the boat, took occasion to warn the man of his danger. "Noo, ma man, coem doun off that, or ye'll coup ower." The bagman only replied by telling him to "mind his own business, and trust him to take care of himself."

"Weel," said the ferryman, "mind I've telt ye; as sure as ye're sittin' there, ye'll coup ower."

No sooner had the rope been attached, and the boat got the inevitable tug from the steamer, than the fellow went heels up over the stern.

"Gowk, I telt him that." However, being in the water, it behooved that every effort should be made to rescue him. So the ferryman made a grab at what seemed the hair of his head, when a wig came away. Throwing this impatiently into the boat, he made a second grip at the collar of his shirt, when a front came away. Casting this from him with still greater scorn, he shouted to his companion, "Tummas, come here, and help to save as muckle o' this man as ye can, for he's comin' a' awa' in bits."

Answers to Nov. Puzzles.

88.—Faint Heart never Won Fair Lady.
89.—Drover, rover, over, rev.
90.—When shall we three meet again,
In thunder, lightning, or in rain?
91.—Snow-storm.
92.—Patriot.
93.—Evil communications corrupt good morals.

Names of Those Who Sent Correct Answers to November Puzzles.

Josie and Eliza Clarkson, Emma Sherlock, S. E. Oldfield, Tom Stevens, Frank Johnson, Fannie Burns, Jessie Thomas, Geo. Barker, Minnie Hill, Arthur Simpson, Alice Wethersby, Ben Lind. Edmund Findlater, Harry Hiscott, Mary Ellis, Robt Parkins, Emily Wise, Georgina Cooper, Fanny Godfrey, Charlie Gorden, Joseph Roe, Emily Tremayne, Bertha Errington, Willie Silcox, Dick Somerville, Lee Smith, and Ella Thompson.

The hotel boy had been instructed, when he knocked at Dean Stanley's door and heard the inquiry: "Who's there?" to reply, "The boy, my lord." The boy answered the first call with considerable trepidation and surprised the dean by a loud response to hisquestion. "The lord, my boy!"

Ventilation.

How much air can be safely admitted into a sleeping or living-room is a common question. Rather, it should be considered, how rapidly air can be admitted, without injury or risk, and at how low a temperature. We cannot have too much fresh air, so long as we are warm enough, and are not exposed to draughts. What is a draught? It is a swift current of air, at a temperature lower than the body, which robs either the whole body or an exposed part, of its heat, so rapidly as to disturb the equilibrium of our circulation and give us cold. Young and healthy persons can habituate themselves to sleeping in even a strong draught, as from an open window, if they cover themselves, in cold weather, with an abundance of bedclothes. But those who have been long accustomed to being sheltered from the outer air by sleeping in warmed and nearly or quite shut-up rooms are too susceptible to cold to bear a direct draught of cold air. Persons over seventy years of age, moreover, with lower vitality than in their youth, will not bear a low temperature, even in the air they breath. Like hot-house plants, they may be killed by a winter night's chill and must be protected by warmth at all times. As a rule we may say that, except for the most robust, the air which enters at night into a sleeping-chamber should, in cold weather, be admitted gradually only by cracks or moderate openings; or should have its force broken by some interposed obstacle, as a curtain, etc., to avert its blowing immediately upon a sleeper in his bed. The ancient fashion, however, of having bed ourtains, which exclude almost all the air, has rightly become almost obsolete. No wonder that people dream horrid dreams, and wake in the morning wearied rather than refreshed, when they sleep in rooms sealed up tightly on every side: breathing over and over again their own breaths, which grow more poisonous with every hour of the night.

Onions.

From our own experience, and the observation of others, we can fully indsore the testimony of the St. Louis *Miller*, on the healthful properties of the above esculent. Lung and liver complaints are certainly benefited, often cured, by a free consumption of onions; either cooked or raw Colds yield to them like magic. Don't be afraid of them. Taken at night all offense will be wanting by morning, and the good effects will amply compensate for the trifling annoyance. Taken regularly they greatly promote the health of the lungs and the digestive organs. An extract made by boiling down the juice of onions to a syrup, and taken as a medicine, answers the purpose very well, but fried, roasted, or boiled, onions are better. Onions are a very cheap medicine, within everybody's reach, and they are not by any means as "bad to take" as the costly nostrums a neglect of their use may necessitate.

WHAT SMOKING DOES FOR BOYS.—A certain doctor, struck with the large number of boys under fifteen years of age he observed smoking was led to inquire into the effect the habit had upon the general health. He took for his purpose thirty-eight aged from nine to fifteen, and carefully examined them. In twenty-seven he discovered injurious traces of the pernicious habit. In twenty-two there were several severe disorders of the circulation, palpitation of the heart and more or less taste for strong drink. In twelve there were frequent bleedings of the nose, ten had disturbed sleep, and twelve had slight ulceration of the mucous membrane of the mouth, which disappeared on ceasing the use of tobacco for some days. The doctor treated them for weakness, but with little effect, until the smoking was discontinued, when health and strength were soon restored. Now, this is no "old wife's tale," as the facts are given under the authority of the British Medical Monthly.

TO REMOVE DANDRUFF.—This is a natural secretion, but it becomes a cutaneous complaint by neglect. Take an ounce of powdered borax, a piece of unslaked lime the size of a chestnut, and a tablespoonful of spirits of ammonia; put them into a quart bottle and fill it up with boiled or pump water. After twelve hours apply this wash to the scalp. Ladies can apply it best with a fine sponge. Rinse with tepid water. After a few applications the scales will disappear, the hair become soft and brilliant, and young hair will be seen to start out. Dandruff should be cured gradually, so as not to produce sick headache or dizziness by the sudden suppression.

Baby's Letter to Uncle.

Dear old Untle,
I dot oor letter;
My old mamma,
She ditten better;
She every day
Little bit stronger,
Don't mean to be sick
Very much longer.

Daddy's so fat
Can't hardly stagger,
Mamma says he jinks
Too much lager.
Dear little baby
Had a bad colic—
Had to take tree drops
Nasey paragolic!

Toot a dose of tatnip,
Felt worse than ever;
Shan't take no more
Tatnip, never?
Wind on stomit,
Felt pooty bad;
Wost fit of sitness
Ever I had.

Ever had belly ate,
Old Untle Bill?
Tain't no fun now,
Say what oo will,
I used to sleep all day
And cry all night;
Don't do so now,
Cause it aint yight!

But I am growing,
Getting pooty fat,
Gain most two pounds—
Only tink o' yat!
Little fannel blankets
Was too big before,
Nurse can't pin me
In 'em no more.

Skirts so small,
Baby so stout,
Had to let the plaits
In 'em all out,
Got a head of hair
Jess as black as night,
And big boo eyes—
Day look very bwight.

My mammy says
Never did see
Any ozzer baby
Half as sweet as me.
Grandma comes often,
Aunt Sarah, too,
Baby loves zem,
Baby loves oo;

Baby sends a pooty kiss
To his untles all,
Aunties and cousins,
Big folks and small,
Can't yite any more,
So good bye,
Jolly old Untle,
Wiz a glass eye!

Don't Write There!

"Don't write there," said a father to his son, who was writing with a diamond on the window. "Why not?" "Because you can't rub it out." Did it ever occur to you that you are daily writing what you can't rub out? You made a rude speech to your mother the other day. It wrote itself upon her loving heart and gave her much pain. It is there now, and hurts when she thinks of it. You whispered a wicked thought one day, in the ear of your playmate. It wrote itself on his mind and led him to do a wicked act. It is there now. You can't rub it out. All your thoughts, all your words, all your acts, are written in the book of memory. Be careful! The record is lasting. You can't rub it out.—*Rural Home.*

NON BEN (LOMOND) TROVATO.—Rory (fresh from the hills) to the driver of a sprinkling cart" "Hech, mon! Ye're loassin' a' yer watter!: Angus (his companion): "Haud yer tongue, ye feul! Etts latt out to stoap laddies free ridin' ahint."[Punch.

What is a Cryptogram?

Here is an easy specimen. Can you read it—Efbs mjuumf gpmltxibu ep zqv uijol pg nz dszquphsbpi?

Not at first sight, I dare say. But when I tell you to take, in place of the letters here written, those which immediately precede them in the alphabet, it is easy enough to decipher the sentence thus. "Dear little folks, what do you think of my cryptograph?" Cryptograph means to write in secret characters, and is derived from two Greek words *kruptos*, hidden, and *graphein*, to write. Now, if you wish to write letters to one another in this style, you must settle a key to your cryptograph beforehand. Thus supposing you agree to use letters three spaces behind those you intend, then *k* would stand for *n*, *a* for *d*, and you would would write April thus, Xmofi. But when once you understand the system you can invent any number of keys on your own account. Of course you understand the letter one space before *a* must be *z*, two spaces *y*, and so on.

Domestic Happiness.

As the wife is the home-keeper, it is natural that her influence in making or destroying domestic happiness is greater than her husband's. By her management of small sums her husband's respectability and credit are erected or destroyed. No fortune can stand the constant leaking of extravagance and mismanagement; and more is spent in trifles than women would easily believe. Look well after the pennies, then. Then there are other matters equally important. An unfinished cruet stand, a missing key, a buttonless shirt, a soiled table-cloth, a mustard pot with its old contents sticking about it, are really nothing; but can raise an angry word or cause discomfort. Depend upon it, there is a great deal of domestic happiness in a well dressed mutton-cnop or a tidy breakfast-table. Men grow full of beauty, tired of music, are often too wearied for conversation, however intellectual, but they can always appreciate a well-swept hearth and smiling comfort. Domestic tasks may frequently become irksome; but, rather than run the risk of losing your husband's love, submit to them cheerfully.

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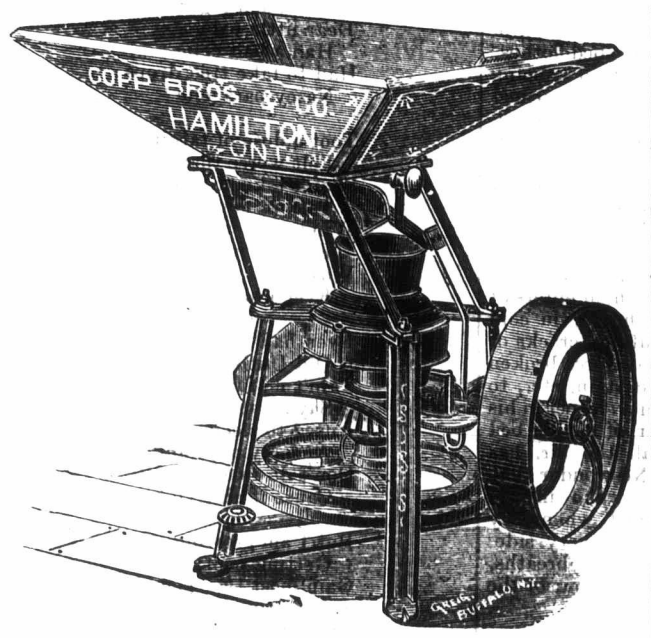

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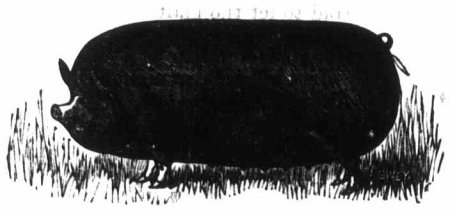

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