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THE FARMER'S ADVOCATE & HOME MAGAZINE

WILLIAM WELD, EDITOR AND PROPRIETOR.

THE LEADING AGRICULTURAL JOURNAL PUBLISHED IN THE DOMINION.

The FARMER'S ADVOCATE is published on or about the 1st of each month, is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

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Our Monthly Prize Essays.

CONDITIONS OF COMPETITION.

- 1.—No award will be made unless one essay at least comes up to the standard for publication.
- 2.—It is not necessary for essayists to agree with our policy, so long as they give sound reasons for differing from us.
- 3.—The essays will be judged by the ideas, arguments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling, our object being to encourage farmers who have enjoyed few educational advantages.
- 4.—Should one or more essays, in addition to the one receiving the first prize, present a different view of the question, a second prize will be awarded, the sum being decided by ourselves in each case, and the essay will appear in the same or in a succeeding issue.

A prize of \$5.00 will be given for the best original essay on *How can Greater Economy be Exercised in the Use of Fences?* Essays to be handed in not later than Oct. 15.

A prize of \$5.00 will be given for the best original essay on the following subject: *Can Mixed Farming be so Changed that more than the Ordinary Amount of Work may be Profitably Done during the Winter Months?* Essays to be handed in not later than Nov. 15th.

Our prize of \$5.00, offered for the best original essay on *How to Regulate Fall Work on the Farm most Profitably*, has been awarded to S. A. Laidman, Binbrook, Ont. The essay appears in this issue.

Reliable Agents Wanted.

Good reliable agents wanted in every county in Canada to canvass for the FARMER'S ADVOCATE AND HOME MAGAZINE. Subscribers or parties well acquainted with the paper preferred. Liberal terms offered to those willing to work. State particulars of former employment, and address this office.

Editorial.

On the Wing.

FARM STOCK IN GREAT BRITAIN.

We visited the Agricultural Exhibition in Edinburgh. The Scotchmen there consider the exhibit of Clydesdale horses the best held in the world. We will not dispute the point; we never saw a finer exhibit. We met Canadians here trying to procure the best, but some superior animals the owners would not part with.

Here also the Ayrshire cattle predominate; other breeds of cattle were at a comparative discount there. In conversation with a Scotchman, he said: "There's mair money in these eyes than in any ither; it's sil'er we need."

When passing through the country we noticed a very large preponderance of the Ayrshires. The canny Scot is a live farmer, and nothing speaks higher for the Ayrshires than their practical utility. The Scotch farmers have been enabled to select the breed that would return the greatest profit, and many of them are wealthy, while their enterprise is proverbial.

Saddle and driving horses were rather inferior in size to the horses in these classes in Canada. At many county shows in Canada one might see just as good Shorthorns as were to be found here. Other classes of animals were not, on an average superior to those found at Canadian exhibitions.

We went a short distance into the Highlands. The rolling hills covered with heather and small patches of grass, afforded a very grand view, but the poor, hungry, wild-looking sheep bore a very sorry contrast to those we will yet describe.

The grand city of Edinburgh deserves a passing remark. No city we have yet seen affords one such a magnificent appearance. A deep and wide valley, neatly kept, divides the city into two parts; the castle and old high houses on one side contrast beautifully with the modern architecture and monument in the new portion. Numerous fine monuments are scattered about the city; some are unsurpassed for solidity and architectural design. The market is quite a marvel; it is on the side of the hill. An immense space is leveled, concreted, and covered with a stone and glass roof; trees, shrubs and flowers are planted on the top or roof, which makes a very fine promenade, and is on a level with the street above. Well may Scotia's sons be proud of their city for many causes.

We saw a little of Glasgow, Belfast and Dublin. We might dilate on the beautiful,

fertile Green Isle, on the grandeur of Dublin Bay, and on the wealth and civility of this city's inhabitants. Here the Kerry cow, not unlike many common Canadian cows in the eastern provinces, abounds—small, fine-boned, red and brindled, but good milkers. A few Shorthorns are to be seen on the farms of the opulent, but it is the Kerry, the Ayrshire and the pig that have to pay the rents. We will leave the political troubles for the present, and may touch on that at another time. Suffice to say, we were in Belfast the night the first bullets and brickbats were flying, and the last, we regret to state, have not yet been thrown.

We cross into Wales, and here we find a very hardy class of cattle, none of which we have ever seen at any exhibition in America. They are black, of medium size, between the Ayrshire and Shorthorn, are fair milkers, active, and are found the most hardy and profitable class of cattle they can raise. In conversation with an intelligent and prosperous Welsh farmer near South Stook, he said: "We have tried all other breeds of cattle; there are none so hardy as the Welsh cattle; this country is hilly, in some parts rocky, and it is bleak and windy." It is our impression that this class of cattle would be admirably adapted to our North-west country, and if going into ranching there, we would be inclined to introduce them as soon as vessels and quarantines might be considered safe. Very large numbers of these cattle are raised in Wales and sent to the farmers in different parts of England to graze and be fattened for 6 to 12 months before being slaughtered, the flat, level country being better adapted to fattening stock than the hills or mountainous parts of Wales.

We visited the Royal Agricultural Exhibition at Norwich. Here the Norfolk or Red Polled cattle make a magnificent exhibit, they being brought out in larger numbers than ever before. They are fine large animals, and by many are preferred to Polled Angus or Aberdeen; they are now becoming very popular, and the prices of this class have a decided upward tendency. At this exhibition the Shire horses may perhaps be considered to carry off the palm. The exhibit of Suffolk Punches was most astonishingly fine. The large numbers exhibited and the superiority of the animals to what we have been accustomed to, makes us ask the question—Why do we not see more of this valuable class of animals at our exhibitions?

The Herefords and Sussex cattle appeared to us to be in larger numbers and remarkably fine specimens of their classes, and to maintain their prices well. In the Shorthorn class there appeared a great contrast in the exhibit to

what it appeared to us two years ago. For instance: There appeared to be two or three times as many white Shorthorns exhibited as at the last Royal Exhibition we visited, and a larger number of roans and a less number of reds. The price the Shorthorns are obtainable for has greatly receded. Although the animals were very fine, still it is our impression that there are many in Canada that would have carried off the prizes had they been exhibited there, and our exhibitions show us that there is no necessity for us to import any more Shorthorns at the present time for breeding purposes in Canada, as some hundreds of Shorthorn bulls have now to be sent to the western prairies at merely nominal figures. To maintain present prices for our breeders, the gerrymandering of the herd books can never reverse the past boom.

A marked difference is seen in the Jerseys exhibited at the Royal and those exhibited in America. At the Royal the dun color and black points prevailed, while in America the fawn and mixed colors appear more prevalent.

Probably the principal feature in which the Royal surpasses our exhibitions is in the class they term "Hack" horses. This is what we term Carriage or General Purpose horses. It includes the most useful and valuable classes that are not designated under the pedigree class. The fine large arched necked, clean limbed, majestic, active animals, that are suited for nearly all purposes, are the animals that we should aim to improve and procure. For the lighter weight and activity we saw nothing that we thought superior to the stock we saw last winter at Mr. Dawe's farm, at Lachine.

In Clydes.—Canada has already imported some of the best that England can produce, and we have now a fine lot of that class in our country. But the "Hacks," of 16½ hands high, and weighing 1400 lbs., clean limbed and active, are the class that we are deficient in.

In sheep, hogs and poultry Canada will compare very favorably.

The Prince of Wales exhibited three Algerian cattle that he had imported. This may be good to show the British public the superiority of their stock, but we could see no commendable point about them.

After leaving the Royal we went into Kent and Sussex. At one point, on elevated ground near Rye, we overlooked part of the Romney Marsh. From this point we could see sixty thousand sheep grazing on the flats below us. These sheep the proprietors find the most profitable. They are wealthy and intelligent farmers that use these lands. They claim that the Romney Marsh sheep weigh as much as the Leicester, Cotswold and Lincoln, have quite as good wool and as much of it, and that these sheep fatten more evenly than the others.

In the south-eastern part of England the Sussex cattle are appreciated. No cattle that we have seen in the British Isles appear to have such a glossy, shining appearance as these beautiful, uniform, even-colored cattle do. They are really excellent beefers, but poor milkers, and nearly as large as the Shorthorns in size. The farmers claim to receive a higher price for this class of beef than for any other. This is due to the fineness of the bone and to the adaptability of laying on fat in an even manner. They do not throw it on in lumps, as the Short-

horns are apt to do. Several of this class of cattle have been imported by Americans. Many of the farmers that raise this class of cattle keep Jerseys to produce the butter and milk for their own consumption. There are more Jerseys found in this part of Great Britain than in any other part we have seen.

This trip has evinced to us the adaptability of different breeds to different localities more than any trip we have taken. Jerseys and Sussex cattle are rarely to be found in the north, or the Polled Angus nor the Welsh cattle are raised in the south of England. On light lands, hilly lands or small farms the smaller breeds of cattle are preferred to the larger breeds. The Shorthorns and Herefords are to be found on the farms of the wealthy, where abundance of rich pasture is grown on flat level lands.

A larger sized horse is used in the gentlemen's carriages, in all the cabs and private conveyances, than those generally found in our cabs, livery stables, or are in general use in the streets of our cities. To be prepared to supply the British market we must endeavor to increase the size of the General Purpose horse of our country.

The Agricultural Exhibitions of 1886.

THE INDUSTRIAL.

Held in Toronto from the 6th to the 18th of September, opened the ball in Canada. The weather was fine, the grounds spacious, convenient and in good order; the buildings suitable; railroad, steam boat and street car accommodation good. The directors and managers being free from any party or political ties or influences, have been enabled to devote their attention to catering to the requirements of the public, and well may they be proud of their great achievement, as it is pretty generally admitted that this has been the best exhibition ever held in Canada, combining the useful and the amusing features together.

The exhibition of farm stock has not been surpassed on this continent. The best that the British Isles can raise in some classes were to be seen here. In fact, imported stock was fairly beaten by Canadian stock, showing that the day has past for the necessity of importing some classes of stock from other countries.

In agricultural implements not one of the United States can exhibit such a magnificent lot of machinery invented in and manufactured from the products of the State, that Ontario can. In fact, Canadian agricultural implements are unsurpassed in the world. The British, the Americans, the French, Germans, Japanese and Chinese were seen there—what for? Why, to learn of Canadians, and they go away satisfied that they have learned lessons from which they and their countrymen must profit. The clumsy, heavy, man and beast-killing implements in use in Great Britain are now the laughing-stock of Canadians—things a Canadian farmer would be ashamed to use. Indeed the British farmers must either adopt the use of Canadian and American inventions or leave their farms.

The dairy interest was fairly represented. In cereals one plain farmer exhibited 160 varieties in the straw. In vegetables and fruits the display was astonishingly good, particularly as the early date of holding this exhibition is

three weeks too early for the full ripening of the fruit, and four or five weeks too early for the full maturity of some of the vegetables.

The floral department was very meagre; in fact, the exhibitors of the miserable looking flowers should be fined for exposing such rubbish for the sake of a prize. Of course the florists have their separate exhibitions at other times, therefore do not care for this exhibit.

The display of pianos and organs was such as to show no necessity for importing them.

The amusement department was well arranged. After the daily display of the herds of fine cattle, the horses were put in motion. Lady riders and drivers will attract even without the horses; when they are together the attraction to many is greatly increased, and when a horse rears up and falls back flat on a lady and kills her, as was the case in Toronto, the excitement is too great for many, but still the most attractive to some, despite this accident. The display of acrobatic feats, the performing dogs, the zoological display, the fireworks at night, and the "Destruction of Pompeii," etc., etc., were all entertaining and amusing, and obscene and demoralizing exhibits were not allowed; neither were gambling, betting or fraudulent practices permitted. The masses came to enjoy themselves; they were not disappointed and departed satisfied. The railroads gave the public unprecedentedly low rates for this exhibition. The exchequer was satisfactorily filled, and the citizens of Toronto reaped a rich harvest.

THE ONTARIO PROVINCIAL

Was held in Guelph the following week, and most of the fine stock and large quantities of the machinery were taken there. Other stock, etc., etc., were added, and a good general display was made. The attendance of visitors was not as large as it should have been. This may be accounted for in several ways, one of which was the discriminating rates charged by the G. T. R., the rates being greatly in favor of the Toronto exhibition.

The great success of the self-sustaining Industrial Exhibition of Toronto, and the sad financial state of the Government Exhibition at Guelph, must have a great effect on the future of exhibitions, and should be well considered from all standpoints to ascertain the causes of the success of one and the failure of the other.

We have seen the horse race, the dance and the baby show, betting, gambling, etc., etc., at agricultural exhibitions; we have heard of the latest attraction at an agricultural exhibition in the States, namely, a sum given to a couple to be married before the assembly, and \$30 paid for the first kiss of the bride. There are now persons worming their way into directors' boards by purchasing votes and other worse practices—men who do not know a Suffolk from a Guernsey or from a Spye—men who have never subscribed for any agricultural publication—men who would swallow up your hard earned land and buildings, and have never been known to write a line, say one word, or spend one cent for the benefit of agriculture or agriculturists. Yet they say farmers are not business men and that they know not how to manage exhibitions. The sharp, practical money-maker now has an excellent opportunity to become wealthy by engaging all the mountebanks and various attractions of all kinds. Go to the directors of agricultural societies, secure their

grounds and buildings, give good prizes to farmers for bringing in their stock, spend a good sum in paint and ink in prizes for races. The masses will come, and when they get there charge high for everything. Of course this could not be repeated. The prosperity of agriculturists is only good to such for what they can get out of it, and the agricultural interest is an excellent plank to build on.

Questions for your consideration: 1. Will it be best to continue holding agricultural exhibitions, or would it be better to change them into fairs? 2. Should there be any limit to their sphere of action? 3. Would they be better under the control of the Dominion or the Provincial Governments, municipal corporations, incorporate bodies or private enterprise?

THE UNION EXHIBITION AND WESTERN FAIR.

At the Provincial the prize stock was divided, part going to the Union Exhibition at Hamilton and part to the Western Fair, London. The exhibit in the cattle department and in fruit probably excelled in quality that exhibited in London, and, on the whole, a very creditable display was made. The attendance was not to be compared to that at London; the implement manufacturers have always found London an excellent locality to secure orders at, and in some departments the machinery exhibited exceeded that shown at any other exhibition in the Dominion. The vegetable and fruit exhibit was much superior to that made in Toronto or Guelph. The Crystal Palace was not quite as well fitted as usual, and the cattle and sheep departments have not for many years been so meagerly attended by exhibitors or visitors; this should be the most important part of the Exhibition. The race course and other attractions absorbed the interest and attention of the Managers to the dissatisfaction of many of our most honorable and best stock men. Many left their stock at home and more anticipate doing so in future. Formerly this Exhibition was a great success; this was attributed to the amusements, as thousands will go for amusements that care nothing for the utility of the Exhibition. The mass favor the latter course, although many consider it must tend to the injury of the agriculturist; as directors cannot serve two masters equally well, and as the amusements are the most popular, agriculture and agriculturists must, under the existing laws, take the second position.

The Industrial is not an agricultural exhibition exclusively, and it would not therefore be just to criticize it as such, but it only falls within our jurisdiction to comment upon the agricultural displays. If the exhibition as a whole acts prejudicially to our agricultural interests, it is our part to advocate amelioration—either by a change in the rules of the Industrial or by the establishment of purely agricultural exhibitions. The Toronto show is confessedly a mere money making machine for coining "filthy lucre" for the citizens of Toronto; but it may accomplish this and at the same time be a tolerable success from the standpoint of industrial education. The demoralizing effect still continues, however.

Prepare to organize a farmers' club in your neighborhood.

Farmers' Clubs.

Dominion Farmers' Council.

[The Dominion Farmers' Council meets on the third Saturday of every month at 2 o'clock p. m. All communications should be addressed to the Secretary, W. A. MACDONALD, London, Ont.]

Our readers will scarcely recognize the Middlesex Agricultural Council under its new name. The September meeting was held on the 4th ult., instead of on the usual date, viz: the third Saturday of the month, at which meeting the name of the Council was changed to the DOMINION FARMERS' COUNCIL.

The meeting was called mainly for the purpose of passing the new Constitution and By-laws, as revised by a committee appointed for that purpose, and of settling some unfinished business.

THE REVISED CONSTITUTION AND BY-LAWS.

Henry Anderson, chairman of the committee appointed to revise the Constitution and By-laws, presented the committee's report. The report was adopted.

It was resolved that two pamphlets be published, the one containing the Constitution and By-laws of the Council, with introductory observations relating to the origin of the Council, and to the importance of farmers' organizations, and the other containing a form of Constitution and By-laws suitable for Farmers' Clubs, with rules as to how to organize them. John Weld was appointed to oversee the printing of the pamphlets. These pamphlets will be mailed free to all parties announcing their intention to establish Farmers' Clubs, applications for same to be sent to the Secretary.

CHANGE OF OFFICERS.

W. A. Macdonald tendered his resignation as vice-president, and Henry Anderson resigned the secretaryship. The resignations were accepted. Henry Anderson was then appointed vice-president and W. A. Macdonald secretary, the offices of corresponding and recording secretaries having been combined into one.

DAIRY INSTRUMENTS AND TESTS.

PRESIDENT LEITCH—Under the heading of unfinished business, I wish to ask what should be done with those dairy instruments ordered from Germany by the Council.

W. A. MACDONALD—I have much pleasure in announcing the safe arrival of the instruments which you instructed me to order direct from the manufacturer. I have been making diligent research as to the accuracy of these instruments, having received numerous reports of tests from the United States, Germany and France, and I have come to the firm conclusion that we have struck a bonanza. They supply a long-felt want in our butter and cheese industry.

W. WELD—How much did the instruments cost?

W. A. MACDONALD—The total cost delivered in London, including freight and duty, was \$1.80 each for the lactoscopes, and \$8.40 for the complete set of instruments. The lactoscopes have been on sale in our markets at \$9 each. This is merely a taste of what a Farmer's Council can do in every department of farming should they set earnestly to work.

The Secretary then proceeded to explain the nature of the experiments required by our far-

mers and dairymen and how they should be performed, adding that he had ordered from manufacturers a complete set specially adapted to testing the butter producing capacities of the various sorts of cream.

It was resolved that a lactoscope be sent free to each Farmers' Club organized under the auspices of the Council on condition that such Club send to the Secretary of the Council reports of certain tests required to be made by the Club, that members of the Council be privileged to purchase a lactoscope at cost price, and that the complete set of instruments be retained by the Council for the purpose of conducting the tests mentioned by the Secretary.

ENCOURAGING FARMERS' CLUBS.

W. WELD.—I appreciate your efforts in attempting to organize Farmers' Clubs in different portions of the Dominion, and I assure you the support of the ADVOCATE so long as you continue to act honorably, faithfully and independently. For the purpose of aiding you in the noble work which you have so successfully begun, permit me to say that all Farmers' Clubs organized under the auspices of the Council, will be entitled to the ADVOCATE at reduced rates, viz: 75 cents a year, instead of \$1.00, the ordinary rate.

CHEESE AND FRUITS AT THE COLONIAL.

Mr. Weld addressed the Council, giving some of his observations at the Intercolonial Exhibition. He said there was a great difficulty in procuring Canadian cheese at any of the restaurants, where it was supposed to be had. After the Exhibition had been open for some time, there were on the Colonial market some samples of cheese which were said to be of Canadian make. A white cheese was sold in small pieces at 8d per pound. By its side were small pieces of colored cheese, composed of not more than one-half new milk, and another quality was labelled at 7d per pound. I tested the cheese exhibited by Mr. Millar, and although not fully ripe, I considered it better than any other quality exposed for sale. There were also apples of inferior quality which were nominally Canadian. I never saw such inferior stuff shipped from this locality. They sold for 4d per pound. I believe arrangements could be made for erecting a store house in this city for apples, where they could be shipped, preserved, dried, or converted into cider, applebutter, etc., according to the demand of the various markets for these commodities. The carrying out of such a scheme would, he believed, enhance the already well established reputation of this city as a fruit centre, and would exalt Canada's reputation abroad.

Mr. T. D. Millar, Ingersoll, Ont., one of our leading cheese men, was introduced to the Council by Mr. Weld, and was requested to offer a few suggestions. He said Canada was not known in England or Ireland; all on this continent were "Americans." But United States cheese was now sold as Canadian. The Americans were dying to get control of the Canadian cheese trade. In the great markets of London and Glasgow, all was American cheese, the name of Canada not being mentioned. We should have houses in London and Glasgow specially for our own cheese, with Liverpool as our receiving port, and we should engage men to represent our interests. The affair might be a joint-stock concern. While

at the Colonial Exhibition he met an agent who represented houses in Africa, New Zealand, India and Australia, who wanted to open out a trade for Canadian cheese. He (Mr. Millar) received a postal card from a man who had seen his cheese at the Amsterdam Exhibition. The card was dated at Gibraltar, and to his great surprise it had reached Ingersoll inside of two weeks. The opening up of the C. P. R. route would stimulate the cheese trade in the countries mentioned. The Canadian manufacturers had a complete knowledge in the science of cheese-making, and no further improvement could be expected so far as the manufacture was concerned. Attempts should now be made to get honest milk from the farmers and delivered in a better condition. For the purpose of accomplishing this object, he thought a joint stock company should be formed in London, and not less than 1,000 acres of land purchased, the company supplying its own milk. By this scheme the milk could be had in a perfect condition, out of which the best quality of cheese could be made. Similar companies might be formed in different parts of the Province. Ordinary cheese factories could not compete with these companies, as the former did not possess the requisite skill for the manufacture of a first-class article. Unless such a scheme were put on foot, measures should be taken for the payment of milk to the various patrons according to its quality, so that the reckless farmer could not profit by the skill of the progressive farmer. All bad milk should be peremptorily rejected; but as matters now stood, it was impossible to do so, as there was so much demand for large quantities of milk by all our factorymen. Melbourne and Sidney would be good centres for our best cheese. He had seen New Zealand cheese sell on the London market for 15 to 45s., when ours brought 60s. If we controlled our British markets in the manner I have mentioned, the Americans could not find a market for their cheese in Britain.

CONGRATULATORY.

Mr. Shipley, a member of the Board of Agriculture and Arts, was introduced by Mr. Weld. In a few brief remarks, Mr. Shipley said he was deeply interested in the proceedings, and he wished the Council success. He was specially interested in the milk tests conducted by the Secretary, and although he did not thoroughly comprehend the scope of the experiments, he understood enough to be convinced that they were just what our farmers and dairymen wanted. He hoped to see the tests continued.

MINERALS AND GRASSES IN THE NORTH-WEST.

Mr. J. F. Latimer, of London, who had been engaged in a mineralogical expedition in the North-west, was introduced to the Council by Mr. Weld, and gave a brief account of his travels. He presented specimens of minerals which he had found between Rat Portage and Port Arthur, the principal mineral being gold, mixed with silver, copper, lead, sulphide of iron, and quartz. These were found chiefly on slate rock which stood on edge. Some of the minerals found at or near the surface yielded \$1,300 to \$1,400 of gold per ton; other specimens, found 100 feet below, yielded \$2,000 or more per ton. These figures showed that gold existed in these districts in paying quantities, but as yet little was done in the mining busi-

ness. In the Turtle Mountain district he had counted not less than fourteen varieties of grasses in one locality. Some one or more varieties kept constantly springing up; the growth was luxuriant, and the butter derived from these grasses had a delicious flavor.

PRESIDENT LEITCH. — Our native grasses should be better tested. We test nothing here except the European varieties. Our native blue grass makes the best quality of butter and cheese, and is hardy enough to exterminate the European varieties with which it is sown.

The Council adjourned until the third Saturday in October.

The Dairy.

Permanent Pastures.

BY PROF. L. B. ARNOLD.

Permanent pastures seem to be a hobby with some dairy farmers and writers, and the press is often burdened with ways and means to maintain them. I have never taken any stock in them as a desirable thing to seek for, but, on the contrary, have looked upon them as a stumbling block in the way of progressive dairying, and a thing to be avoided except under peculiar circumstances. I consider that there are three classes of farmers, and but three, for whom permanent pastures are appropriate. The first consists of those who have land that is not arable; the second consists of those who have more land than they have any moral right to own, that is those who have more land than they can cultivate properly, and some of it must be neglected; and the third class takes in those who are too lazy or shiftless to cultivate what they own, and might cultivate if they had the energy and will to do so. Permanent pastures and meadows are great institutions in the eyes of lazy and dull men, and perhaps are as well suited to their capacity as anything.

When land is too stony, too steep, too woody or too wet to plow or mow, it may be wise to keep it in permanent pasture, and get whatever it will yield. There is, in fact, no other use to which it could well be put, unless, perhaps, it was put to growing timber, which, under some circumstances, might pay better than grass, and under others not. Then, again, if one has more land than he has means to cultivate well, and some of it must be neglected, it would certainly be better to keep that which would be the least profitable and most inconvenient to till, in pasture, rather than not make use of it at all. But when a man finds himself thus encumbered with more land than he can do justice to, it is generally better for him to confine his operations to what he can cultivate to the best advantage, and to sell the remainder, for if the land has any considerable merit the interest of what it would sell for would, nine times out of ten, be more than the use of it for permanent pasture or any other pasture.

Pasture land in its best state generally pays the poorest of any of the arable part of the farm, and permanent pasture poorest of all. There are several reasons why this should be so. First, the grass in a pasture is necessarily unthrifty, because it is so frequently cropped. No plant can flourish and be vigorous which is every little while denuded of its green herbage. Every time grass is wounded by cropping its

growth is put back. It stands still, or grows but feebly, till it recovers from the shock and has time to gather renewed energy sufficient to throw out new shoots, only to be again stunted, and to repeat the same thing over and over again through the season, or until frost silences any attempt at growth. If every other condition was favorable, the best the grass plants in a pasture could be expected to do would be to make but a very feeble growth in comparison with what they would be if left to grow undisturbed through the season, or till they reach their full size, as in the case of meadow land. The closely cropped grass in a pasture does well if it makes one-fourth of the weight it would if not mutilated. But it is further injured by being trampled on, causing injury to both grass and roots. The ground is also compressed, diminishing its capacity to hold water, as well as affecting growth and hastening evaporation, which is always too rapid, owing to the poor protection from sun and wind the scanty covering of grass affords. It takes but little drying to stop the growth of grass in any pasture, but much less in old than in new, so that long seeded pastures are the first to suffer from drought, and to pinch the stock depending upon them. Unless the conditions as to soil and moisture are unusually favorable, the growth of grass on old permanent pastures runs up and down with every favorable and unfavorable turn in the weather, making their supply of food a very precarious affair—a perfect game of chance, as much so as the livelihood of a gambler.

There are some good points about permanent pastures. Their slow growth produces rich and sweet feed, that makes good butter and cheese, and beef and mutton. It is, as a rule, true of grazing generally, that it makes higher flavored and richer milk than when cows are fed on the larger yields of cultivated crops. The flavor of herbaceous matters, and grains, and fruits, are heightened and increased by the influence of sun and air. Open pastures are supplied with a fuller share of these necessary agencies than can be furnished to more crowded and massive growths which are developed by tillage, and for the same reason light cultivated crops give a better quality of herbage than heavy ones; but the better quality does not make up for the smaller yield. So with pastures. Though they may make the best of milk, their scanty and precarious returns do not enable their owners to compete with those who by cultivation and rotation of crops get larger and more reliable returns. The latter make milk if not of the very best, of good quality, and at less cost. It has been a matter of observation for years that dairymen who indulge the least in pastures are the most prosperous, but the former get what little they do get easy, and that is a weighty consideration with lazy people.

In view of the small yield and sensitiveness to drought of old pastures, it seems to me an unwise policy to think of establishing permanent pastures on good arable land in Canada and the Northern States, when with a little labor and forethought such land can be made to yield six or eight times as much with almost absolute certainty. A full, uniform, constant and reliable supply of food for dairy cows the season through is a *sine qua non* for profitable dairying. With want alternating with plenty,

there is no profit, and this is the rock on which more dairymen split than on any other.

The present season has furnished a sorrowful demonstration of the short-sighted policy of subjecting cows solely to the uncertain supply of food furnished by pasture only, even if of the best and freshest sort. Almost all sections have suffered more or less. The great Northwest and Texas have suffered especially. Cheese factories and creameries have been closed for lack of milk, and the returns from private dairies have dwindled to a ruinous pittance almost everywhere, and loss is common. The loss this year is more than usual, but it is not altogether strange. More or less loss from drought occurs every year, and periodically is severe in localities, but all this loss is avoidable, and not a necessity. Such men as the Hon. Hiram Smith, of Wisconsin; John Gould, of Ohio; Hon. Harris Lewis, of New York, and Edward Burnett, of Massachusetts, and many others of the same sort, go through such crises without wincing at all, and make money while others are losing. These men have learned that it is unwise to put their sole trust in pastures, especially old ones, and that tillage and rotation of crops are better, and by their steady success, whether drought prevails or not, they are public examples of the fact that, be the seasons what they may, hot or cold, wet or dry, dairying is one of the most profitable and certain of all agricultural industries when a fair share of common sense is employed in its management. With the experience of such men, and the lessons of the present season before him, the dairyman who fails to become impressed with the necessity of providing against the ever-recurring drought by some more efficient and certain means than scanty pasturage, while entitled to sympathy for the losses that await him, is still more to be pitied for his stupidity.

Dairy Tests at the Industrial and the Provincial.

At the above named Exhibitions, held a year ago at Toronto and London, tests of the respective merits of our leading dairy breeds were inaugurated, the results of which were published in the *Advocate*. We lauded the enterprise and expressed our conviction that the tests, although not founded on strictly accurate principles, were an important movement in the right direction.

As the battle of the dairy breeds has continued to rage more fiercely than ever, it will be interesting to inquire what has been done at these Exhibitions recently held. It is asserted that last year's dairy tests at the Industrial cost \$1,000, and that this sum was too great in proportion to the amount of "attraction" realized. This was unquestionably an extravagant sum in payment of the work done, but instead of attempting to reduce the expenses of the tests this year and increase their practical value, the management caused them to dwindle into a farce. It was proposed to test the respective merits of the breeds by merely noting the volume percentages of the cream, and if Mr. Valancey E. Fuller had not exposed the business through the columns of the daily press and otherwise, it is quite probable that the tests would have actually been made and the results published to the world. This would have produced little damage, how-

ever, for every intelligent farmer and dairyman knows that the percentage of cream is no guide whatever as to the butter capabilities of a cow.

What now about the tests at the Provincial? We certainly should expect better results, for the Board of the Agriculture and Arts Association are supposed to know something about the wants of our farmers. Under the superintendence of Mr. J. C. Snell, a member of the Board, a puerile attempt was made to institute a test of the breeds. The managers of the Model Farm, who figured in the tests last year, refused to participate in the farce. Mr. Snell is a Shorthorn breeder, and we don't think that he claims to know the first thing about the principles of butter-testing. If it had been proposed to appoint a butter expert to superintend the judging of Shorthorns, Mr. Snell would have seen the joke at once, and would unquestionably have resigned his position as superintendent of butter tests. Mr. John Hannah, Seaford, President of the Ontario Creameries Association, was appointed to conduct the tests; but if he had known the difficulties he had to surmount, notably the great lack of facilities, it is not likely that he would have staked his high reputation on the miserable farce. If the Board does its duty to the farmers, the tests will not be published, for they must be very misleading, and they will afford an opportunity to the possessors of a certain breed to foment a boom.

We examined the methods, or rather the want of methods, of feeding for the tests; also the quality of the milk produced. Mr. Valancey E. Fuller was the only competitor who understood how to feed for records; we believe he could make any breed come out ahead in a competition with amateur feeders. One competitor took his cow directly from the grass and put her on dry feed, by means of which she sickened during the contest. Another competitor, an owner of a thoroughbred Shorthorn cow whose milk we examined, brought in milk of such inferior quality that it would pass as being adulterated with water. In fact the whole business was a test of the feeder, and not of the breed. Mr. Snell denied us the right to examine his system (!) of testing. We are not surprised at this; for it appears to be the policy of the Board to do their deeds in darkness when the interests of the farmers are concerned. "Light, more light," is our policy. When Mr. Snell comes to find out that the Shorthorn proved such a disastrous failure, he will likely attempt to suppress the publication of the report, while Mr. Fuller, who has gained a great advantage by the milk being set only twelve hours, will probably insist upon the publication of the report in the interests of the Jersey breeders. If the report of the tests be published, we warn farmers against placing any reliance in it. No test at all is much better than half a test.

The Holstein breeders wisely refused to compete, and it is likely that the upholders of the other dairy breeds will accuse them of cowardice. The Holstein men have displayed honesty as well as wisdom, and one of them informed us that he would not put a cow into such a contest even if he knew her to be the best butter-producer in the world.

The cows entered for the competition were:—2 Ayrshires, 2 Jerseys, 1 Shorthorn, and 2 Shorthorn grades.

English, Canadian, and American Dairy Products.

A tour amongst the English dairies recently completed by Prof. Arnold, brings to light some interesting dairy facts relating to the relative merits of English, Canadian, and American dairy products. The Professor, in a letter to the "New England Homestead," makes the following allusions to the subject:

Judging from the few factories visited and the cheese seen, they are turning out quite as good work as factories in the States, but not as good as the Canadian factories, especially those in Western Ontario in the neighborhood of Ingersol. The best cheese I met with was from Western Ontario, and it everywhere took the lead in reputation and price. Not all the cheese, however, from Western Ontario was fine. All I saw that was made on the old acid process, still too much in vogue in Canada as well as in the States, was no better than State or English cheese, if as good. It was the cheese made by drawing the whey sweet and giving the curd a long ripening after it is out of the whey by keeping it warm, that has given to Canadian cheese the good name it has acquired, and it seems a pity that other factory men, and especially our own, are so slow in adopting it. * * * The English have the advantage of us in respect to conditions favoring cheese-making. Their rich soil and moister climate produce grass that makes a curd that will average mellow and richer than in the States or Canada, and their lower and more even-tempered atmosphere in summer is more favorable to good curing. They ought to beat us in the cheese branch of dairying, and they may yet do so if they study the philosophy of the art as industriously as many of our dairymen do.

In the midland counties, where most of my time was spent, English butter, I became well satisfied, was not quite as high flavored or as high colored as American butter, either States or Canadian, when all were uncolored and otherwise made alike. A rich soil, all other conditions being equal, contributes to richness of milk and to high flavor in butter, and seeing that the soil averaged richer in England, I anticipated finding higher-flavored butter, and was surprised and at first a little puzzled to account for its being lower flavored instead, but after studying the situation awhile, I thought I saw two causes operating to produce the unlooked for qualities. One of these was the want of sunshine and hot weather.

In England there is more foggy and cloudy weather than here and the grass there gets much less sunshine. England has a more equable climate than we have. It is warmer there in winter and cooler in summer than with us. Flavor in grass, as in fruit, is the combined product of sunshine and warm weather. Other circumstances may modify the flavor of grass, but where all other conditions are equal the lower the temperature at which it grows the less flavor will develop in it. That growing grass is sweetened and improved for milk, butter, and cheese, is a fact well known to observing dairymen, and to all such the low summer temperature and cloudy weather of Northern and Middle England will appear a sufficient cause for depressing the flavor and color of butter made from the green grass growing there.

Chicago and New York are to be supplied with milk made from nitrate of potash, glycerine, and other pleasing chemicals. The people of San Francisco had been fed on this compound for several months, and did not find out the fact until a few days ago, as the bogus article so much resembles the genuine that only the bottle-fed baby can detect the difference; and, unfortunately for the rest of mankind, the baby cannot talk. The shame of this sham is all the greater because a physician furnished the receipt.

The Ayrshire Cow Coming to the Front.

A meeting of the Ayrshire breeders was held in Guelph on the 24th ult. for the purpose of organizing into an association for the promotion of the Ayrshire breed of cattle. Mr. D. Nicol, of Catarqui, Ont., was appointed chairman *pro tem*, and Mr. T. G. Nankin, Merriville, Ont., secretary.

We are pleased to see this movement on the part of the Ayrshire breeders. We have frequently insisted that the Ayrshire breed deserves greater prominence than it has hitherto received; but our writings have produced little practical effect owing to the want of co-operation from the Ayrshire breeders. Unlike other breeders, they have not come forward in a body to present the merits of their breed, without which little progress can be made in these days of booms. Notwithstanding the enormous records imposed upon the farmers by those interested in other dairy breeds, the Ayrshire men are not afraid, providing they receive justice in the methods of carrying out the tests.

We do not yet commit ourselves so far as to decide the relative merits of our dairy breeds, believing that the tests have neither been numerous nor reliable enough to prove anything, but we shall continue to advocate that the tests be conducted in the interests of the farmer, and not for the aggrandizement of the manipulator.

The merits of the Ayrshire as a milker cannot be denied, and her milk is above the average in the percentage of butter fat; but she has this drawback, that a considerable percentage of the fat remains in the skim milk, which detracts somewhat from her value as a butter cow, without, however, depreciating her value as a cheese producer. Her appearance and tractability are greatly in her favor, and she possesses in a high degree the external indications of a superior milker. She is exclusively a dairy cow, and we may therefore expect that the cost of production of her products will be found to be much less than that of the beef-dairy breeds—the so called "general purpose cow." There appears to be fewer scrubs amongst the Ayrshires than amongst any other dairy breed.

At the Provincial Exhibition there were as many Ayrshire cattle as Holsteins and Jerseys combined. If the enthusiasm of the Ayrshire breeders were proportionate to their numbers, or equal to that of the Holstein or Jersey men, they would soon sweep all before them.

Our Ayrshire Herd Book was established in 1872, and is under the control of the Agricultural and Arts Association. The first volume was published in 1884 and contains 390 pages. The muddle which the Board of this Association have made of the Shorthorn Herd Book will not soon be forgotten, which must destroy the confidence of our farmers in the other herd books under the same control. We should like to see the Ayrshire breeders manage their own herd book.

The attendance of the Ayrshire breeders at their first meeting was not so large as desirable, but the beginning is never indicative of the end. A motion was carried to the effect that a meeting to be held in Toronto be called about New Year, and that all the Ayrshire breeders be notified by the secretary.

Stock.

What Constitutes a Thoroughbred Shorthorn?

To the Editor of the Farmer's Advocate:

SIR,—A letter in your August number over the signature of Robt. McQueen illustrates some grievances in regard to this breed, and being a young man and personally interested, I have waited patiently for more light on the subject through your columns, but have failed to get it up to the present. Being a farmer and not having experience in writing newspaper correspondence, I feel my inability keenly; but there are some glaring imperfections in connection with the management of this breed's pedigrees that have come under my notice, which I feel in duty bound to uncover, hoping that others better posted will take up the subject till we small breeders will know the foundation we are building on.

I first made up my mind to start a herd of Shorthorns some two years ago, and accordingly purchased three animals from a breeder at Bowmanville, which were registered in the Canada Shorthorn Herd Book, but on getting home with them those posted in the breed told me they were no use unless they would register in the B. A. S. H. B., and referred me to its rules and regulations, two of which I give below, taken from its first volume, as follows:

1. "The Association have now much pleasure in offering to the farmers and breeders of Canada the first volume of the B. A. S. H. B., containing the pedigrees of over 2,800 thorough bred cattle, none but those tracing directly to imported stock from Great Britain being admitted to record on its pages.

2. "This Herd Book is intended to fill a want long felt of some reliable source of tracing their stock, and in offering them to the farmers and breeders of the Dominion, it is to be hoped that it will meet with their approval and be accepted as the standard of breeding by which their cattle shall in future be judged. A vast amount of labor has been expended on this work in the examination of each pedigree sent in for registration, and in the culling out of all those having the least trace of impure or grade blood."

On the strength of this, I thought it best for me to register in the B. A. S. H. B., which I did, and considered myself safe in laying the foundation for my herd. I afterwards purchased some twelve head of Shorthorn cattle from two breeders in Prince Edward County, and took pains to find out that they were eligible for registration in the B. A. S. H. B.; in fact part of them were registered.

The next feature in the business was the amalgamation of the two herd books under the name of the Dominion Herd Book, with the same rules as the B. A. S. H. B. I found myself again elected to re-register my twice registered cattle, and sent in my pedigrees to H. Wade, the Secretary, with membership fee, and thought myself safe, as the rules were identical. But what did I find? That out of my herd, numbering 26 head, I had 12 rejected pedigrees on account of a bull, Napier (1825 C. S. H. B.), and one pedigree of heifer Pauline, tracing to bull Napier (1825 C. S. H. B.), accepted for registration in vol. 4, B. A. S. H. B., under date Feb. 9th, 1885, and the certified copy of which I hold, is not on the books of the Association; and on hunting up this matter, I made a trip to Toronto and examined the books carefully myself, but she had not

been recorded at all. On inquiring of R. L. Denison, I was told that it had been received and filed away for registration, but had been lost at the time of amalgamation—a very slipshod way of doing business for the Secretary of an Association who professed to scrutinize every pedigree so carefully and reject all those having the least trace of impure or grade blood, and who is now the registrar of the pedigrees of cattle entered in the new Herd Book. Can we breeders put any confidence in this new Dominion Herd Book, with the same rules and the same registrar that the B. A. S. H. B. Book possessed, which contained, according to the present investigation, thousands of grade and impure pedigrees?

Where am I to find a thoroughbred Shorthorn, or what country possesses a herd book containing the pedigrees of none but pure thoroughbred Shorthorns? A breeder of Great Britain can register an animal of four crosses, and a breeder of the United States can register an animal of seven crosses in their respective herd books; but now, under our present management, it looks to me like a premium on importing cheap cattle from Great Britain, for our standard does not allow us to register with 50 or any number of crosses, as will be seen by the Rodger stock, numbering up in the thousands, being rejected, and tracing back as far as 1822; also stock from North Star and other noted animals, which are not eligible because they do not trace to imported stock where they rejected four crosses. Where is the breeder who has cattle, if traced back far enough, but would spring from grade or common stock?

In my opinion, the herd book question will never be settled till we readjust the tariff and discard men from our employ who have been so faithless in their former charge, and erect some standard of merit, as well as pedigree, by which cattle may be registered, as many of the best specimens of the breed will not register under the present rules, and many that are registered are inferior animals. I know such is the case in my herd and in some other herds I have examined. Any one acquainted with the present system of registering knows that we are totally depending on the honor of the breeder we purchase from, as there is any amount of room for a breeder so desiring to have spurious pedigrees registered. I hope this matter will be thoroughly ventilated, and let the standard be erected as high as you choose, but let us have men to run it whom we have confidence in, and let us keep out the importation of grade stock.

R. J. GRAHAM, Belleville, Ont.

The first natural laxative in the colt is the first milk secreted by the dam, but this may sometimes be deficient or unhealthy, the consequence being that the bowels of the colt fail to produce evacuation freely. Costiveness and its long train of evils usually follows, ending in a reactionary movement called "scours." This condition may be prevented, if taken in time (which can be ascertained by watching the colt closely for a day or so after being dropped), by giving a three-ounce dose of castor or olive oil, with a teaspoonful of laudanum, if the bowels do not move freely.

The most burdensome tax on the farmers is the keeping of so many fences.

A Chatty Letter from the States.

[From our Chicago Correspondent.]

At the late Illinois State Fair there was a comparatively small attendance of people, and financially it was not a success by \$10,000. There were too many big premiums given to gentlemen's roadsters, trotting horses and saddlers, which were generally taken by city people. After the numerous late series of races here, the city folk did not care to go and patronize a show that seemed to be largely cheap horse racing, and the country folk had had too much drouth and low prices to feel very enthusiastic over what should always be a grand autumnal festival and season of rest, recreation and sight-seeing.

The display of French draft horses was the largest ever made in this country, and was indeed a feature of the fair. But when it came to a matter of premiums, the fourth-rate trotter in a two-wheeled gig, and the bob-tailed runner, ridden by a feather-weight darkey, who resembled a grotesque monkey more than a human being—these seemed to be far more important than the draft animals, and the fast walking farm horse was nowhere to be seen.

In the cattle departments, the special herd premium of \$1,000 went to the Herefords.

Stock farmers in all the eastern and central portions of the States are looking forward to the time when the ranching business will be no more, at least in its present shape. Ordinary field cattle stand but little show against the "free grass" cattle of the West, which can in many cases be run a year for \$1 per head.

Store sheep have been in unusually good demand this summer and fall. A year ago, when prices were low and the country seemed to be literally full of fattening muttons, the outlook seemed bad for feeders, and fat sheep, thin sheep, breeding sheep and all, were hurried to market and sold almost regardless of prices. But during last spring and summer it suddenly became evident that sheep were scarce. Lately country feeders have bought all the young sheep they could get at \$2 and \$2.50, and several thousand 115 to 118-lb Oregon and Montana sheep sold to Illinois and Michigan feeders at \$3.50.

The ravages of hog cholera this year have been something appalling. Hundreds of farmers are unable or are afraid to have any hogs to follow their fattening cattle. The hogs lately marketed have been of remarkably good quality, but there have been no more of the good to prime sorts than have been wanted at good prices. The outlook for hog raisers the coming winter is regarded as fairly promising. The Chicago hog packers at the present writing are still working their men on the eight-hour system. It places them at a disadvantage with all other points where the men are compelled to work ten hours.

Seldom have cattle men in the States been more discouraged than during the past month or so. The floods of thin and ill-conditioned cattle from the western plains demoralized the markets for all but the very best cattle. There has been a reaction lately owing to the mooted shortage in the corn crop, and not a few feeders are confidently looking forward to \$6 for choice cattle during the early part of next year at latest. If an advance in prices is contingent upon a

material shortage in the corn crops, some "great expectations" may not be realized. There are many sections throughout the States where they have a shortage of corn, but on an average there will be corn enough for all practical purposes. If there is any material improvement in cattle prices it is more apt to come as a result of many feeders curtailing operations than from any shortage in fattening materials. The drouth of 1886 has been one of the most disastrous visitations of the kind in many years, and coming as it did in the depressed state of commercial affairs which followed the memorable labor disturbances, it seems doubly hard.

The time seems to be coming when American fine stock breeders, who make a business of supplying breeding stock to beginners and those who want to improve their herds, will in a measure find the supply greater than the demand. The stimulus which fine stock breeding received less than ten years ago has resulted in overdoing the business in all of the ordinary lines. Now the breeder of grade bulls does not meet anything like the encouragement he once did, and people seem to be realizing that, after all is said and done, the object of cattle breeding is only two-fold—for beef and for milk—and when it comes to a practical consideration of these two objects, breeders are learning that they who ignore entirely the claims of the good, "common" stock of the country, are not the ones who make the most money.

It has been a bad year for the raiser of big, 1,600 to 1,800-lb beeves, and very few raisers and feeders but have lost money at \$4.75 to \$5.25 for their costly bullocks.

The old complaint of excessive freight tariffs on cattle and beef are being renewed by the stockmen in the West. This year the railways charge about \$1.25 per head more for carrying cattle and beef from Chicago to the sea than last year. This, in view of the fact that cattle are selling fully \$10 per head less than last year, seems a very uncalled for "gouge." It simply goes to show the power of pools or railway combination. It is believed by some that the consumers in the East pay this difference, or a fair share of it, but such is not the case. The men who produce the cattle are the ones who are compelled to pay this excess. It is in the line of what English producers want, as every advance in freight rates on cattle in this country makes producers that much less able to compete in the markets of their British cousins. The railway monopoly is a dangerous one, however, and one which may well strike terror to the hearts of those who are at its mercy.

The Shorthorn Muddle.

We submit to the careful perusal of our readers the letter of Mr. R. J. Graham, published in our stock department. The writer has no cause to be reticent on account of his youth and asserted inability; his letter is very pointedly written, and presents facts which should strike alarm into the minds of our farmers. In our April issue will be found an exposure of the frauds connected with the recently amalgamated herd books, and the *ADVOCATE* is the only journal that had the courage to speak out the truth, the other agricultural papers being too dependent for support upon the Government and upon our live-stock manipulators to even mention the deplorable state of affairs.

Some of the manipulators affected great generosity when they announced that they were willing to sacrifice a few head of Shorthorns which were not eligible for registry in the Dominion Herd Book; but they must have anticipated that this loss would be balanced by the increased price of the remainder of their herd. Their expectations, however, do not seem to be realized, for we find that stock registered in the new book are being auctioned off at less than "scrub" prices, and we know of a breeder who holds two yearlings of un-registerable stock at \$300 each. The wall of the manipulators was that their herd books were held at a discount by American breeders, and yet at the same time the American Shorthorn Herd Book was in a still more deplorable plight than our own. The Americans clapped a pedigree tail on almost any beast, and our herd books accepted that as their standard. It is not to be wondered at that many of our honest and innocent breeders, like Mr. Graham and Mr. McQueen, should cry aloud for justice, if not for revenge.

Granting that the powerful ring will obtain higher prices for their stock in America on account of the change, what is the position of our honest breeders and our farmers? The small breeders desire to cultivate the Canadian market for their surplus stock, and what do our farmers want? Certainly not high-sounding names and long, aristocratic pedigrees. Individual merit is what they demand, and to them a four or a seven cross is just as satisfactory as the offspring of imported stock. We are sorry to find that our disappointed breeders are not unanimous as to what course to pursue; indeed, we hardly know ourselves what advice to give. The ring is strong, and have the Board of the Agriculture and Arts Association under their cloven hoof. The same officers who perpetrated these outrageous frauds are still in office, and the same poverty, which they assert to be the cause of their rascality, still stares them in the face. They have applied to the Dominion Government for a bonus to enable them to continue to ply their nefarious trade, but that body can scarcely stoop so low as to accede to their demands. The want of funds may be a barrier to the establishment of an honest herd book suitable to the wants of our farmers, and if this obstacle cannot be overcome by the voluntary support of honest men, then the days of pedigrees are numbered—that's all. The existing principles are utterly false, and it is therefore no wonder that our herd books have no legs to stand on. Any herd book established on the basis of individual merit will receive our unqualified support; it will not be so voluminous that it will be too costly for self-support, and we shall still cling to our oft-asserted policy that we shall wage eternal war against all scrubs, no matter of what breed or kind, until they are effectually weeded out of our herd books, as well as out of our stalls and pasture fields.

The Farmer's Advocate.

Now is the time for our subscribers to get up a club for the *ADVOCATE*, as the balance of this year will be given free to new subscribers. We hope all our old subscribers will send in at least one new name. Extra copies will be mailed for canvassing purposes at request.

The Farm.

A Cheap and Serviceable Rail Fence

The accompanying illustration shows a new invention by Mr. C. Avery, Clinton, Ont., of which a patent has recently been issued. We have examined the fence and believe that for cheapness and substantiality combined it cannot be excelled for ordinary farm purposes in most localities. Mr. Avery, the inventor and patentee, is a practical farmer, and we believe he will deal honorably with those who wish to buy township or county rights from him.

The attachments firmly secure rails or boards of a fence to the posts, and consist of a loop of wire passing around the rails or boards and secured to the post by a staple. In attaching rails to posts, in the accompanying cut we start from the left, the loop is secured with staples, the rail is then inserted, then pressed up to next post; it makes a tension on the wire which binds the rail against the post, making the fence strong and rigid; a loop is then made to correspond with the next rail, passing around both ends; the next rail is put in the loop at an angle, then pressed up to third post, which binds both rails to the second post so on for an indefinite course.

As will be seen by the cut, the rails may pass alternately from one side of one post to the other side of next post, or they may be alternately on the same side of two posts, which leaves the fence perfectly balanced. It is possible, but not always practicable, to make the loops so tight that they will hold the boards or rails to the post without further appliances. The staples, however, involve little labor and expense, and make the work more substantial. One staple to each loop is sufficient, securing the wire loop to the post. No. 10 galvanized wire is recommended.

In estimating cost of fence, count posts at 10cts. each, ash rails at 3cts., or cedar at 5cts., the rails being 12 feet long, requiring about 3 inches of a lap; it will leave about 11 feet 4 inches, or about a post and a half to the rod, and four rails make a good stock fence, which will call for six rails for a rod, making 21cts. per rod for rails, 15cts. for posts, and 5cts. will supply wire and staples. With regard to setting the posts, it varies according to soils and locality, being from 6cts. to 10cts. a post. Two men will put up sixty rod in a day with a little practice. This makes a total of 60cts. a rod, and by using economy it can be built for 50cts. For a four rail fence the proper spaces will be six, eight and ten inches, then by banking up eight or ten inches, you will have a good four and-a-half foot fence. Again, for cattle and horses, two or three rails will make a reliable fence.

Rails do not lie on the ground to harbor weeds, but allow stock to clean out rubbish, so that by getting a supply of posts most farmers can extend their old rails for years, and save over half an acre on every ten acre field by closer cultivation as well as saving time every season repairing fences.

What About the Manure Heap?

In some farm practices the "old rut" has been proved to be better than the new one. Not so with reference to the common method of handling the manure, however: for a more senseless and wasteful practice could scarcely be devised.

No rule for saving the manure will apply to any two farmers; indeed, no one farmer can follow, year after year, the same rule with the best results. How important it is, then, that the first principles be thoroughly understood, so that variations in the different methods can be made from time to time to suit the ever-changing conditions. Under any circumstances, the manure heap should be figured on at least a year ahead, and now is the time to do the reckoning. Where the soil in every field on the farm has the same chemical and physical character, a more uniform method of saving the manure can be applied; but this is a rarity, and not a rule. The character of the crop has also something to do with the method of saving the manure, but not so much as the character of the soil. Where the barnyard manure is supplemented by commercial fertilizers, still greater skill is required in the management of the manure heap, and every

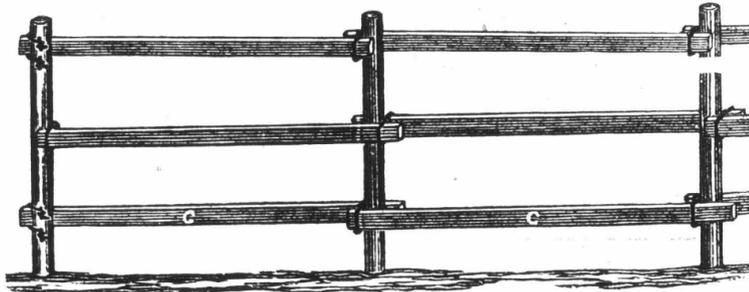
should not take place to any appreciable extent in a well-managed heap. The latter loss is caused (1) by over-fermenting or "fire-fang," and (2) by washings from heavy rains. In over-heating, the loss is confined to the ammonia; but in leaching, a large portion of all the valuable constituents are washed away. This loss is especially great when rain falls on a heap well advanced in the stage of fermentation, for the constituents are then more soluble. A loosely-made heap of rich manure is specially liable to over-heat, while it is difficult to start fermentation in a compact heap made from the droppings of poorly-fed animals. Fermentation can be best regulated by piling together the horse, cattle, sheep, and pig manure, making the heaps five to six feet wide, about the same height, the length depending upon the quantity of stock. Should it be required to ferment all the manure, more than one such heaps may be made, commencing before the frosty weather sets in. A covered shed is not necessary—sometimes it does more harm than good—but care should be taken that the manure be spread evenly over the heap in order to prevent its freezing in lumps, and if a heavy rain threatens, top off the heap so as to ward off surplus rain. A considerable amount of

moisture, however, is necessary in order to take up the escaping ammonia and to prevent "fire-fang." Manure treated in this manner will be ready for the spring crops, a season's time thus being saved, quick returns made, and a loss of fertilizing matter prevented.

It is now necessary to understand what kind of soils manure thus prepared is adapted for. Its chief char-

acteristic is that its mineral constituents are very soluble and readily taken up by the plants, so that if it be applied to a light porous soil some time before the crop is sown, much of the valuable constituents of plant food will leach through the soil and be wasted. Such manures are best adapted to sandy soils, and should never be applied except shortly before or after the crop is sown. They are also very suitable as top-dressings for meadows or other crops. Manure treated in the ordinary way—spread over the barnyard and left all summer to ferment—may be applied to light soils at any time, for it has scarcely any fertilizing matter to be lost. When the manure is placed in heaps in the fall and allowed to ferment during the winter months, sufficient straw should be used as litter to absorb all the urine, but no more, in which case the waste will be reduced to a minimum, and there will be great economy in using the driest part of the bedding from the horses and sheep under the cattle and pigs. The reason why coarse manures are not adapted to sandy soils is that it injures their mechanical texture, and there are few or no rocky particles to be acted upon by the carbonaceous matter, although such soils act very quickly in converting coarse manures into plant food.

It now remains to be considered what kind



A NEWLY PATENTED RAIL FENCE.

farmer can greatly economize by the use of such fertilizers, providing always that he understands how to apply them.

There has been a great deal of tongue and pen warfare about the application of green vs. rotted manure. Such discussions produce no practical results, as the question is a settled one. It is important to understand this, for upon it depends whether the manure should be fermented in the barn yard or spread directly upon the field. The first question to be decided is, What changes, or losses, or gains, take place in the process of fermentation? In the first place, every farmer knows that the bulk is greatly reduced in size and weight, but whether or not a proportionate amount of plant food is lost cannot be detected by ordinary observation. One thing is certain, that no nutriment can be added by fermenting the heap, but this is no proof that the process is not advantageous, for it may change the availability of the plant food—that is, may make it give quicker returns. The sources of loss may be divided into two classes: (1) The loss of carbonaceous matter which must take place, and which is not a direct source of nutriment for plants, but is useful in the soil for the purpose of acting upon the rocky particles and converting them into plant food; (2) the loss of the direct constituents of plant food, which

of manures are best adapted to clay and vegetable soils, and how to prepare such manures. Coarse, unfermented manure, when plowed under, benefits clay soils in winter by exposing them more completely to the action of the air and frost, and in summer by decreasing the tendency of the soil to bake; but these objects are much more effectually attained by thorough draining and tillage. The disadvantages of coarse manures on heavy soils are that they hinder the movements of moisture and decompose very slowly—often too slow to furnish sufficient nutriment to the growing plants. On such soils, the manures, both liquid and solid, should be hauled directly from the stables and spread upon the field, no straw being used as bedding. The hauling may be done at any season, and any length of time before the sowing of the crop, for mostly all the nutritive constituents will be absorbed and retained by the soil, but the manure is not usually plowed under until near seeding time. However, we have obtained the best results by applying green manures as a top-dressing on the plowed ground, applied in winter, the ground being cultivated and harrowed in spring. Such top-dressings are specially valuable for shallow-rooted crops.

When it is considered that heavy soils are usually deficient in organic matter, the applying of muck is the very best practice that can be adopted. Barnyard manure is also very rich in organic matter, so that, in order to get the greatest possible quantity at the least expense, dry muck should be used under the stock to absorb the urine, and the whole mass may be hauled directly to the field. The farmer who cannot conveniently obtain this article may use dry earth of any kind, sawdust, or any other absorbent. Besides the beneficial action of muck on the physical character of clay soils, it has a nutritive value equal to its weight of the best barn-yard manure.

The application of barn-yard manure to vegetable soils is a great waste of capital. Such manure, no matter how prepared, cannot be profitably used, especially if there are other kinds of soil on the farm which need manuring. Phosphates (in the form of bone dust or superphosphate) and ashes are the most profitable fertilizers, as they contain no organic matter—a substance of which humus already contains an excess. Barn-yard manure also, as a rule, injures the texture of vegetable soils.

It is useless to attempt to destroy weed seeds by fermenting the manure heap, for few seeds will be destroyed at the fermenting temperature, and a higher temperature results in a great loss of ammonia, which escapes in the form of a gas, and can readily be recognized by its strong odor.

I always think it a great treat when I get a valuable paper to read. I could hardly do without the FARMER'S ADVOCATE.—C. L. WEBER, Glenora, Ont.

Disc Harrow and Seeder.

One of the newest introductions in the line of farm implements is the Corbin Steel Disc Harrow, to which a seeder may be attached, made by the St. Lawrence Manufacturing Co., Prescott, Ont. The accompanying illustration gives a good representation of its working, but does not show the seeder attachment.

The wheels or discs, sharpened at the outer edges, do not revolve in a line parallel with the tongue of the harrow, but in an outward direction, and a greater or less slant may be given them according to the nature of the work to be done. By this arrangement, the soil is sliced and turned over in small furrows, completely covering the seed any depth required. The discs may be adjusted in such a manner that the implement will work as a harrow or a cultivator, and in some soils it will serve the purpose of a gang plow. The discs are concave in shape, are made of steel, placed six inches apart, and form the field into small ridges six feet wide. It is claimed that the implement does thorough work in slicing and pulverizing

sod, and cannot therefore speak from experience, but we see no reason why it should not do thorough work on sod fields.

Agricultural Affairs in Manitoba and the North-West.

[By our Winnipeg Correspondent.]

The drooping spirits of Manitoba farmers, caused by a succession of frozen crops, have been revived this year by the absence of frost. Although the average yield per acre is very low, farmers are more willing to attribute this result to bad farming than to the gods of the weather. Last year the frost gave them a lesson on early sowing, this year a dry season has given them an emphatic lesson on good cultivation. After such a dry season as the past it must be admitted, if it never was before, that the soil of Manitoba is one of wonderful strength and fertility, but on the other hand, it must also be admitted that good cultivation pays here as it does in Ontario. The farmers of Ontario would not have had a crop worth harvesting if they had had such a

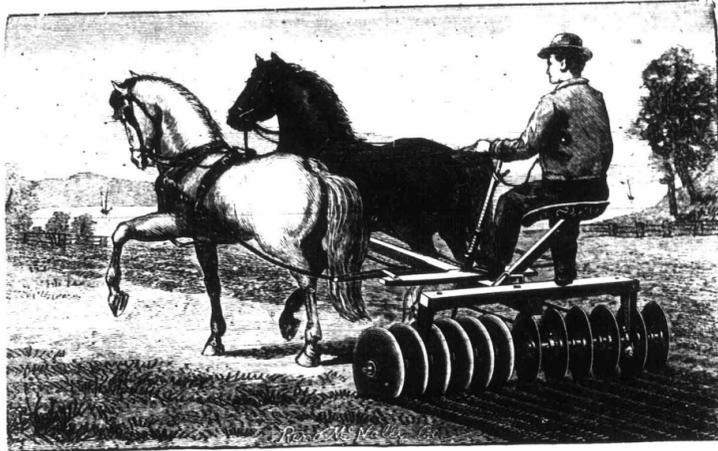
dry season as we have had here. In some of the driest districts where the land was fairly well cultivated, we have 20 bushels per acre. But in the same districts I have seen fields adjoining where the land was poorly cultivated or cropped for a succession of years, giving only eight bushels an acre. This shows alike the wonderful fertility of the soil and the importance of good cultivation.

Despite the dry season, it is estimated that there will be a larger quantity of wheat marketed this year than any previous season. This is

accounted for by the acreage being larger than in the days of good crops. It is expected to have a good effect on the trade of the country. The wheat market is now open. The following shows the prices paid by the Ogilvie Milling Co. for No. 1 hard, at different points in the country: Macdonald, 59; Elkhorn, 56; Alexander, 56; Oak Lake, 56; Brandon, 57; Emerson, 60; Carman, 59; Pilot Mound, 60; Morden, 60; Thornhill, 59; Portage, 59; High Bluff, 59; Minnedosa, 57; Douglas, 57; Neepawa, 57; Manitou, 59; Virden, 56; Winnipeg, 65.

As was generally predicted, the result of the frozen crops last year has been to direct a greater attention to cattle raising and mixed husbandry. Every farmer is using every available means to increase his herd of cattle. The cattle ranches of the West also have received great additions both from Eastern Canada and from the ranches of the Western States.

Sheep are now also attracting attention. Twelve thousand Montana sheep have been put on ranches near Calgary this summer; besides large additions are being and will yet be made to this number before the close of the



CORBIN STEEL DISC HARROW.

lumpy soils, and that it cannot be eclipsed as a crusher on plowed sod. The manufacturers are anxious that farmers should see it tested, believing that actual tests will popularize it more thoroughly than any other method.

The seeder attachment can be speedily placed and removed without the use of wrench or hammer. It sows all sorts of grain broadcast, and the harrow covers it any desired depth.

We did not feel perfectly safe in recommending this implement to our readers without first testing it ourselves. We took it to a field where the soil was a sandy loam. The ground had not been worked for several months; it was therefore packed pretty solid by the heavy rains, and was densely covered with Canada thistles from six to eight inches high. The harrow tore up the ground three and a half inches deep and "yanked" out nearly all the thistles. We then moved to another portion of the field—on the side of a steep declivity, where the soil was a stiff blue clay, which had been plowed a few months before, and there was a large number of hard lumps. The harrow pulverized the ground thoroughly, leaving it in a good condition for a seed bed. We have not seen it work on plowed

season. The ranchmen to the south of the boundary are looking with longing eyes to the Canadian territories, and many are pulling up stakes and betaking themselves to what they consider our superior ranching country.

Where is to be the market for this stock? is a question agitating the country at present. It is felt that the market for this large trade must necessarily be the metropolis of the Northwest, and it is broadly hinted by the westerners that if Winnipeg wishes to retain that distinction she must needs be up and doing, or some other enterprising town will grasp the prize. Undoubtedly there will soon be an unlimited supply of stock available, and it will be a boon to whatever locality it centres at.

The dairy interests of Manitoba have certainly not been neglected this summer. The Department of Agriculture here engaged Professor Barré, late of the Ontario Agricultural College, to travel through the country and deliver lectures and otherwise instruct the yeomanry of Manitoba in the deep mysteries of dairying. Prof. Barré has been traveling the past several weeks, but the result has not yet been made known.

The Manitoba Dairy Association, recently organized, has now been established on a sound business footing. Mr. Wm. Wagner, M. P. P., the butter king of Manitoba, is president. Mr. Wagner has made a study of dairying in this country, besides having a thorough knowledge of dairying as practised in Denmark and Germany, he being, if I am not mistaken, a native of the latter country. A meeting will be held on the 30th inst., when the future policy of the association will be decided upon.

The Eleventh Provincial Exhibition will be held here, commencing on the 23rd Sept. and ending 1st Oct. \$10,000 will be given in prizes.

NOTES.

The Rockwood Dairy Co., Stonewall, receives 5,349 pounds milk daily.

Butter is being shipped to British Columbia from Manitoba.

Mr. Waldoek receives 4,000 pounds milk per day for his cheese factory at Shoal Lake.

They say our representative, Capt. Clark, is putting in good work at the Colonial.

The Hudson Bay Co. have erected a large elevator at Winnipeg, at a cost of \$9,000, with a capacity of 45,000 bushels.

Dr. Harrison, a large land owner and practical farmer, has been appointed Minister of Agriculture for the Province.

Score one for Manitoba: Alex. Begg telegraphs that flour made from Manitoba wheat has been awarded the gold medal at Amsterdam.

About 20,000 head of cattle have passed through Winnipeg this season, mostly from Ontario, for the ranches of the West.

The Home Cattle Co., of St. Louis, have established a ranch of 25,000 head of cattle at Wood Mountain.

Rapid City has given a bonus of \$10,000 for erection of a roller and woolen mill.

Oats are 30 cts., potatoes 50 cts. per bushel, eggs 15, butter 15, cheese 9½ to 10, hay \$3 to \$4 per ton. Lambs, fat, \$3 to \$4; breeding ewes, imported, \$6.

Clean and paint your tools as soon as the season's work is over.

Farmers should write more of their experience to their agricultural journal.

PRIZE ESSAY.

How to Regulate Fall Work on the Farm Most Profitably.

BY S. A. LAIDMAN, BINBROOK, ONT.

There is no time of the year in which a greater variety of work has to be done than in the fall. Fall work begins as soon as the harvest is all in, and in many instances before harvest is finished. It ends when the first heavy snow storm falls. Now, it would be almost impossible to formulate a set of rules by which a farmer might perform his fall work, because there is such a difference in farms. Some are large, and some are small. Some are in one locality and some in another. Some have one kind of soil, and some another kind. Some farmers have five or six hired men, others have none at all. So the only thing that can be done is to give a few directions that will apply to the average farm and farmer, and let all the others select what they can put into practice. But if one rule could be given for all, then here is one that will apply just as well to the small farmer as to the great one; as well on a sandy farm as on a clay farm: "Drive your work, or your work will drive you."

Putting in fall wheat is about the first work to be done on the farm in the fall, and every farmer should be particularly careful how he puts in this crop, which has always been the principal crop of the Ontario farmer. It is better to have the ground plowed for a week or two before the seed is sown, so that the rain and moisture may pack the loose ground together, so as to have a good seed bed for the grain. When the ground is thus plowed before the time for sowing, it gets quite moist, and if there should be a dry time just after the seed is sown, it will germinate a great deal quicker than it would on newly plowed land. There are many opinions as to when is the best time for sowing wheat, but the best results are had from wheat sown during the first and second weeks in September. If sown earlier, it is liable to get too much top in a wet fall, and to rot if there should be a hot, dry spell immediately after sowing. Good seeds should always be sown.

Immediately after seeding is a good time to thresh, if it has not been done before. Many farmers make a great mistake when they leave their threshing till late in the fall. If they thresh early they have longer days for it, it is pleasant getting around, and there is plenty of time left to get the grain to market when the roads are good. If it is left till late in the fall, then it is almost sure to be wet, cold and muddy, the days are shorter, and everything is disagreeable. Another mistake that is frequently made is that of leaving the grain till bad roads come before it is hauled to market. How much better it is to get it away when the roads are good. The markets are generally as good in the fall as in the spring, with the exception of oats, and a great deal of waste and shrinkage is avoided if the grain be disposed of in the fall. Rats and mice destroy a vast amount of grain during the winter, and, besides, a man has about six months longer in which to use his money if he sells out in the fall.

Fall plowing is something that nearly all farmers do, and something that nearly every one has an opinion of his own about as to when it should be done. Stubble ground should, without doubt, be plowed early for various reasons. One reason for plowing early is that it is pleasanter working when everything is dry and clean, and a person can get more done

in one of the long days at the beginning of the season than in a short one at the end of it. Another thing, if you begin early you are sure of getting it done, but if you leave it till late you may be hindered so with the wet weather that part of it will have to be left over till spring, and there is not much time then for plowing. Early plowing is also a good way to kill weeds, for as soon as the ground is stirred the seed will grow, and when the frost comes they will be killed, but if the ground is not stirred till late in the fall the seeds will not grow and will remain in the ground till spring, when they will grow rapidly and prove very troublesome. It is well to do most of the plowing in the fall, especially on heavy lands, as the frost pulverizes the lumps during the winter, and generally better crops are had from fall plowing than from spring plowing. In the spring, too, there is always a rush about seeding time, so that if a man has much plowing to do then he is sure to get behind with his work and will not catch up again all summer.

Potatoes have to be attended to and dug sometime in the fall, and it is always best to take them up as soon as they are ripe. It is much easier to find the hills or rows soon after they are ripe than it is when the tops have all died and have almost disappeared. In a wet fall there is sometimes danger of rotting, but if they are dug as soon as they get ripe there is not so much danger. It is a great deal better to dig them early in the season when they are dry and clean, than it is later on in the season after they have received a good shower or two.

All root crops should be lifted as soon as they have stopped growing, for it often happens that heavy rains set in, and frequently are followed by early frosts.

Where a farmer has a large orchard he has to spend considerable time in the fall in picking his apples and in putting them away. This should also be done early so that there may be no danger from early frosts. The trees will also require some pruning about once a year, and no time is better for this than the fall. In fact, no other time is so good as the fall, for if it be left till spring the tree has been getting a store of sap ready during the winter, and if a limb be cut off in the spring the tree will have more sap than it will require for the remainder of the tree, and will consequently throw out suckers where the limb was taken off. But if the limb be cut off in the fall, the tree will not lay up a larger supply of sap than it requires and no suckers will be thrown out.

Buildings are constantly getting out of repair, and no time is better for repairing them than the fall. Stables should all be ready for the animals before cold weather sets in, so that they will not suffer while the stables are being repaired. If the house needs painting, now is a convenient time to do it. If a barn needs re-shingling, now is the time to have it done. In fact, there are a thousand little jobs about the farm that can better be done in the fall than at any other time. There are fences to fix. Why not do it now? It will save time in the spring. There will then be no waiting to get the fences fixed up before the horses can safely be turned out to grass. The cattle will not be breaking into the wheat field and tramping it full of holes.

Trees and bushes in the orchard should be dug around and mulched in the fall, and they will come out in the spring in fine condition and yield better than those that have been neglected.

Many farmers make a great mistake in letting all their machinery stand out in all the snow and rain of the year. Why is it that they will pay out so much money for implements and then leave them out in all kinds of weather to go to pieces? "A penny saved is a penny gained," and it is a great deal better "to wear out than to rust out." If a machine is broken just as a man is about done his year's work with it, why is it that twenty-nine out of every thirty farmers will borrow one to finish with, and then put away their own till they are ready for work the next year before they get it fixed? Do they not know that it will take just as long to get it mended at one time as it will at another? Do they not know that

time is more valuable to the farmer in haying or harvest time than it is in October? Why is it that many farmers leave their plows and harrows standing in the fence corners till one of their valuable horses gets his leg broken, and then, when too late, they put them in the barn out of the way? Doesn't every farmer know that it is cheaper, safer, more tidy, and in every way better to keep his implements under shelter?

Late in the fall, just before the snow falls, is a splendid time to gather up all the stray pieces of firewood in the bush. When the snow has fallen much of the wood is covered up, and can not be seen at all, and that which can be seen is in a disagreeable state to handle. The time was when it was not necessary to pick up every stick that would burn, but now the wood in most parts of Ontario is getting scarce and it is necessary for the farmer to make his remaining forest go as far as possible. This he can best do by gathering up all he can in the fall and piling it neatly up so that it may be handled after the snow falls.

Although the farmer has so much work to do in the fall, it does not follow that he is to take no time for pleasure of any kind. There are many ways in which he might spend a few days every fall and be no worse off for it. He might take a few days for exhibitions. He might take a short time when he gets well on with his work, and go off to see his friends. Anything that will give him a little rest and change, for the farmer needs a little recreation as well as anybody else. "All work and no play makes Jack a dull boy," and it is true of the farmer.

Our year is divided into seasons and everything should be done in its season. The farmer should keep his eyes open and when the time comes for a certain work to be done he should at once do it. Farmers would succeed a great deal better if they would make a great effort in the fall and get well in advance of their work. Then they never would be so crowded at any season of the year as many of them are all the time. They would do well to follow the old motto, "Never put off till to-morrow what can as well be done to-day." Yes, farmers, always try and *drive* your work, never let it drive you.

Agriculture and Arts Association.

The annual meeting of the above Association was held in Guelph on the 22nd ult. The President's annual address contained the usual amount of flattery as to the doings of the Association and as to the wisdom displayed in their system of expenditures. He praised the newly amalgamated Shorthorn Herd Book, stating that they had now the best in the world. He lauded the prize farm scheme, and considered that each was a model farm free from Government expense. He congratulated the Dominion Government for their wisdom in establishing model farms, and for having inaugurated the Colonial Exhibition, which he considered to be a better method of advertising the country than by means of agents and pamphlets. He regretted that beef and cheese had been neglected at the Colonial. He considered that their 41st Annual Exhibition was a grand success, being the best they had ever had, and he praised the Government for the success of the Farmers' Institutes.

In the competition for prize essays, Mr. Thomas Shaw took the first, and Mr. John Campbell the second on the subject as to the relation of employer and employe on the farm. On grasses and clovers, Mr. D. Nicol took the first prize and Mr. Thomas Elmes the second. In the sweepstakes for prize farms, Mr. Simpson Rennie, County York, was awarded the first prize; Mr. William Donaldson, County Oxford, the second, and Mr. John Fothergill, County Halton, the third, the competition

being very close. The prizes were in the form of silverware.

Mr. Morgan presented the claims of Ottawa for the next Provincial Exhibition. A motion was unanimously carried to the effect that the Provincial Exhibition be continued.

Mr. Derbyshire, the President of the Eastern Dairymen's Association, criticised that portion of the President's address which stated that cheese had been neglected at the Colonial Exhibition. He corrected the erroneous impressions which had been circulated with reference to the cheese exhibit. He said the finest cheese had been selected and was shipped to Halifax in due time; but the Government let the transportation contract, and accepted a low tender. The consequence was that the steamer took its own time, having first sailed to New York with a cargo, and left the cheese in Halifax as long as it could get other work to do. The cheese lay there over a month before it started for its destination, the result being that it arrived too late for the Exhibition. He condemned the Government for not having dispatched the cheese by the Allan or the Dominion line, which would have cost very little more, and the cargo would have reached its destination in due time. The cheese, however, sold for 10s. more than the current market price. If the cheese had arrived in time little would have been gained, for only six feet of space could be secured, which were entirely inadequate for the exhibit. He stated that cheese and butter were now being shipped, and were to be placed in charge of Mr. J. W. Robertson, Professor of Dairying at the Model Farm.

A brisk discussion took place on the system of appointing the judges. Some were in favor of one judge and others favored three. It was stated that mostly all the good judges were exhibitors, and it was therefore almost impossible to get choice judges. The present system of appointment, viz., each member of the Board appointing a friend as judge, was condemned. It was thought by some that the judges should be appointed by a committee of the Board. A vote having been taken, a large majority was found to favor the three-judge system, but the mode of election was left to the discretion of the Board. Some urged that nothing could be learned by the existing system of judging, for, without a standard, no breeder could find out the judge's estimate of the weak points, and then the judges at one exhibition reversed the decision of those at another.

Auction Sale of Model Farm Stock.

The ninth annual sale of live-stock, the property of the Ontario Government, was held at Guelph on the 23rd ult. The exhibition grounds were utilized for the purpose, and the sale took place on the day on which the greatest crowd was expected to attend the Provincial Exhibition.

The asserted live-stock policy of the Ontario Government is to import high-class stock and sell it cheap to our farmers for the purpose of encouraging improvement. It is important to inquire how far this policy is sustained by the facts. How can high-class stock be sold cheap at a sale open to the world's bid, where the importations are heralded throughout all lands, where the sale literature is broadcasted without stint, where the pedigrees fill volumes, where special

railway rates are obtained to draw an immense crowd, and when the sale is specially privileged to be held in the midst of that crowd? To say that such stock can be sold cheap under such circumstances is to assert that the animals are not knocked down to the highest bidder. To say that the policy of the Government is to sell dear stock is to ignore the wants of the farmers and go into the useless business of competing with our breeders. But the animals were sold cheap, and were knocked down to the highest bidder. How can this anomaly be explained? There was no flaw in the pedigrees and many of the sires and dams were imported from the most aristocratic herds in Britain. The stock sold were the offspring of the mammoth importation of 1884, the imported animals themselves being retained on the Model Farm. The sires and dams were exhibited in the tent and in the auction ring, and their appearance, notably of the beef breeds, gave great promise to the young offspring. With all these immense advantages, why was the sale not a greater success? Has the Government a bad reputation as a breeder? Have prices fallen flat? Has the boom touched bottom? Have the diseases which infested the Model Farm a few years ago scared away our farmers and stockmen? It has been denied that these diseases existed, and we have been branded as liars for daring to speak the truth. Not only have we seen diseased animals slaughtered on the Model Farm, but their own veterinary surgeon, Prof. Grenside, ably and honestly described these diseases in their annual report. Any farmer who has any doubts on the subject can easily remove them by sending for a copy of the report for 1883, and turn to pages 174 and 192. So much for facts; now for figures.

The only Shorthorn sold was a roan heifer calved Feb. 10, 1886, got by "Rob Roy," and has a famous pedigree on the dam side. "Rob Roy," both in points and pedigree, is a superior bull, and was imported in 1884 by the Government, costing £450, and yet the heifer Lady Belle only brought \$75, sold to John Lamont, Caledon, Ont.

The Hereford bull Conqueror, sired by the famous Lord Wilton, was purchased by the Government for £500. Two of his bull calves, Conqueror 2nd, dam Cronkhill Duchess 2nd, and Conqueror 3rd, dam Bloomer, sold for \$140 and \$210 respectively. Both dams belonged to the Government importation of 1884. These calves were sold to H. A. Muntz, Alport, Muskoka.

The Aberdeen Angus Poll bull calf, Strathglass 4th, calved Feb. 19, 1886, was sold to Thos. McCrae, Guelph, for \$160. This calf was sired by Strathglass of the same importation, dam Sybil's Darling, the former having been purchased for £500. An Aberdeen Angus Poll heifer from the same sire, dam Kyma, was sold to R. Shortreed, Guelph, for \$120.

Galloway bull calf got by Stanley 3rd of Drumlanrig (purchased by the Government for £100), was knocked down to Thos. McCrae for \$105. This calf, dam Berta of Drumlanrig, also imported, was dropped Dec. 24, 1885.

Devon heifer Esmeralda, by Rose's Duke, calved March 26, 1886, was purchased by W. J. Rudd, Arkell, for \$65. The sire cost £45.

Ayrshire bull Campbell 3rd, by Campbell of Drumlanrig, dam Sensation 2nd of Drumlanrig, calved Jan. 12, 1886, was sold to Wm. Kough,

Owen Sound, for \$45. The sire cost £42, and the dam £40. An Ayrshire heifer by the same sire, dam Stately 3rd of Drumlanrig, fell to James Healey, Strathroy, for \$85.

Holstein heifer, Verasina, calved Dec. 5, 1885, was sold to Wm Leeds, Toronto, for \$100. The Holstein heifer Mahala, aged four months, was sold to the same breeder for \$70.

Jersey bull St. Mary's Boy, by St. Mary's Boy (535), dam Beauty o' the Null, calved April 6, 1886, was purchased by Chas. Cumming, Troy, Ont., for \$42. Jersey heifer, by the same sire, was sold to S. Fraleigh, St. Mary's, Ont., for \$120. The sire cost £45.

Guernsey heifer calf, Goldleaf 2nd, was auctioned to Thos. Ballantyne, Stratford, for \$85. The sire cost £50.

Four fat steers, Hereford and Shorthorn grades, average weight on Aug. 1st, 1637 pounds, sold for an average price of \$128, being nearly 7½ cents per lb. live-weight.

A number of grade cows that gave a daily average of 28 lbs. of milk during the past summer sold for an average price of \$24. These cows were served by the imported bulls, and were probably in calf.

The offspring lambs of the sheep importation of 1884 were also sold. The following prices were paid for the imported sires and dams:— Lincoln ram, £30; 3 Lincoln ewes, £10 each; 2 Cotswold rams, £23 and £30 respectively; ewes, £5 each; Leicester ram, £50; ewes, £8 6s. 8d. each; Highland ram, £10; ewes, £2 10s. each; Cheviot ram, £10; ewes, £2 10s. each; 2 Oxford Down rams, £20 each; ewes, £10 each; 2 Hampshire Down rams, £35 and £40; ewes, £6 each; 3 Shropshire Down rams, £65, £35, and £10; ewes, £5 each; 2 South-down rams, £52, 10s. £105; ewes, £10, 10s. each. The offspring of this importation brought the following figures at the sale: 2 Leicester rams, \$10 and \$15; ewe, \$13; Cotswold ram, \$17; ewes, \$16 per pair; Lincoln ewes, \$11 per pair; Highland ram, \$5; Oxford Down ewes, \$22 per pair; 4 Shropshire rams, \$40, \$16, \$19 and \$17 respectively; ewes, \$52 per pair.

Compared with the advertising advantages of the Model Farm, and the large sums of money squandered in printing pedigrees, etc., these figures should be regarded as discouragingly low and unprofitable. Why should there be such a vast difference between the prices of the imported stock and their offspring? Possibly the mania for imported stock still continues, and the value of home bred animals has not yet been realized. This fact is certain, that our Government as a speculator in live-stock is a disastrous failure and should be invited to retire from the business. If any farmer or stockman has gained anything by the Government's loss, let him rise and explain what advantages he had over and above those obtained from private enterprises. As an educational medium, why should not the government patronize our own breeders, and purchase stock from them instead of making huge importations at an immense loss to the country? We await with curiosity the sight of the next importation.

In the dairy breeds, are the prices received any indication of their relative merits? Certainly not. The Holstein did not belong to the Government importation of 1884. The figures given strikingly illustrate the effect of booms. We consider that the Ayrshire brought very

low figures compared with the intrinsic merits of the breed. In the breed of sheep the figures are more natural.

The Holstein-Friesian Herd Book Controversy.

A very unpleasant collision took place at our leading exhibitions amongst two sections of our Holstein breeders, which arose from the registration of this breed in Holland and American herd books. It appears that the Americans register in their Holstein-Friesian Herd Book names and numbers from the Netherland Herd Book, but the animals must be black and white, no other colors, though the pedigrees be equally pure, being admitted for registration. The Holstein breeders in Canada have made a rule of registering their stock in the American Herd Book, although the fees are high, and it costs \$100 to become a member of the Association.

Mr. John Leys, however, a Toronto lawyer, and a breeder and importer of Holstein cattle, exhibited a large herd at our leading exhibitions, none of which were registered in the American Herd Book, and only three were registered in the Netherlands. He showed by certificates that the sires and dams of his stock were registered, the offspring being therefore eligible for registration, although, according to the rules of that country, no bull can be registered under one year of age, and no female until she has dropped a calf. These rules, he claims, barred him from getting his stock registered at the time the importation was made, but he confesses that they might have been registered since that time. In competing for prizes at our exhibitions, the rules demand that the pedigrees shall be as complete as possible, and on these grounds the other Holstein breeders claimed that Mr. Leys' Holsteins were not eligible for competition. They also asserted that the managers were partial to Mr. Leys on account of his being a man of influence. The judge of Holsteins at the Industrial, a man brought from New York for the express purpose of judging, strongly favored the parties who registered in the American Herd Book, it being, of course, his interest to draw as much patronage as possible. The stock committee decided that Mr. Leys had a right to compete for prizes, which annoyed the other breeders, and at first they refused to bring their stock into the show ring, but afterwards consented to compete. After the judging was over, their discontent still continued, they declaring that they would not exhibit another year, and demanding that no Holsteins should compete for prizes unless they were duly registered in the American Holstein-Friesian Herd Book.

These circumstances show the necessity for establishing uniformity in the rules pertaining to the registration of all breeds. It seems strange that so much laxity is observed with regard to the Holsteins, and a tight wall of pedigree is being built around the Shorthorns. If Canada is not able to support a Holstein register, then it is important for us to know whether we are to be ruled by the absolute laws of the American Holstein breeders, or adopt the Netherlandish standard.

We hope those interested will write to us in the matter, and suggest some method of avoiding further collision.

A Grand Experiment in Farmers' Organizations.

Of all the agricultural experiments that have ever been conducted in Canada, the one instituted by the DOMINION FARMERS' COUNCIL is the most practical and gigantic. It will solve a great problem. It has been stated that farmers can never efficiently organize, as trades and professional people can, owing to their isolated condition. This experiment has never been thoroughly tested, and it is hoped that the present experiment will be founded on sound principles. If farmers do not take advantage of the immense inducements now offered them, the experiment will prove beyond all likelihood of doubt that they prefer bondage to freedom, that our agricultural interests are to be made subservient to partyism.

The auspices under which the DOMINION FARMERS' COUNCIL has been established is a guarantee of the honor and independence of that body and of the sacrifices which it is ready to make in the interests of the farming community. Those who have closely watched its proceedings cannot dispute these facts. It has implicit faith in the success of its enterprise, providing our farmers manifest some degree of concern for their own interests. It will aim to aid, and not thwart, all individual enterprises which tend to our agricultural prosperity, and, although "Self-reliance" will be brilliantly displayed on its banner, it will readily co-operate with any organization, public or private, which adopts the best interests of agriculture as its standard. The Council, considering its youth, has already accomplished much, although the results of its labors may not yet be fully experienced, and what it may yet accomplish is ably set forth in our prize essay by Mr. W. E. Marshall, which appeared in our last issue. It is quite certain that no progressive farmer of honor, intelligence and independence can raise any objection to the scope of the Council, and any man who takes exception to its principles has not the welfare of our farmers at heart. Its members are successful, intelligent and progressive farmers, and there is not a question in the science or practice of any department of husbandry that cannot be radically and exhaustively discussed in debate.

Many organizations, even when their members have been aggregated in large cities, have failed for want of an efficient organ to expound their principles, and many have bankrupted themselves in their efforts to support an organ. You, the free, independent and self-reliant farmers of Canada, have at your command one of the most powerful organs in the Dominion, and if you do not now seize all the privileges that have been offered you, you will be proof against organization, against your own interests, and against those of your posterity.

There are various causes of abortion in mares, amongst which may be mentioned:—Violent exertions, colic, violent external injuries, heroic medicines, rancid oil-cake, musty food, impure water, large quantities of stimulating foods, etc. When the mare is known to have received an injury, or if an exciting cause is present, camphor, given in small doses (one scruple to half a drachm) with opium, may be given two or three times daily for one to three days as a preventative.

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More than the usual amount of growling was audible amongst the stock exhibitors. The judges, of course, were getting worse instead of better. In fact, they knew too much. Although not knowing enough about the intrinsic merits of an animal, they knew too much about the organization of rings—to the detriment of the "small" breeders. It is strange that such complaints made from year to year do not result in the lessening of the stock exhibits, and yet the exhibit this year was superior to any stock display we have ever seen in Canada. The threats about the discontinuance of the exhibits never seem to be carried into execution, the prize inducements being too great. If the prizes were less, the stockmen would be compelled to seek greater advantages by means of sales. The manufacturers of agricultural implements and machinery receive no prizes, and yet their exhibits are grand; they attend more closely to their business than the stockmen. The latter are very negligent in this respect, although they are slowly improving: most of them now have advertising cards connected with their exhibits, although the owners themselves are usually found wanting. The sheep and swine breeders are specially defective in their methods of pushing their business, both exhibitors and cards being usually missing, and the horse breeders are little better. Prizes cannot be given for implements because there is no standard for judging. There is no standard for judging stock, and yet prizes are given. Until this defect is remedied, the growling must continue.

Prof. Arnold, writing of English dairies, says: I have seen but little of England, but so far as I have seen, the dairies are made up almost exclusively of Shorthorn cows, without record, most likely, good looking animals and rather large—too large, it seems to me, for the milk they give. Lord Vernon's herd of sixty or seventy cows, said to be a good average dairy, has a record of 26 to 27 lbs. of milk per day, and an average weight of 1,100 to 1,200 lbs., with an average cost for food of \$1.67 per week. When to this is added labor and the payment of a heavy rent, the milk will have cost over a dollar per 100 lbs., nearly all it will bring when sold either as milk, butter or cheese. It strikes me, here with even more force than at home, that more milk and less beef would pay better, and that our good cousins here who have some advantage over us, in that their grass is greener and more succulent than ours, from having a moister climate, will have a hard struggle in competing with the world outside of them, in the production of butter and cheese, until they co-operate in their manufacture and abandon the effort to do a double business in producing milk and beef out of the same food and in the same body.

In settling the merits of a stallion, an important question is, What percentage of foals does he get? The question is not easily answered, and the truth does not generally come to light even when the owner can approximate the facts. The highest average we have seen, taking a series of years, is about 80 per cent., but there have been averages as low as 40 per cent., with only 32½ per cent. of live foals. It is probable that, in some calculations, the fault was more in the mares than in the stallions.

Poultry.

Feeding for Eggs.

A writer in the *Working Farmer* gives the following advice with reference to the feed of fowls for producing eggs, or for fattening purposes:

Hens cannot produce eggs unless their feed contains the elements of which the egg is composed. The kind of feed that is offered to hens must be determined by the object to be attained in feeding them. Hens intended for the market should be fed that kind of grain which is known to contain a large percentage of the fatty matter and a fair share of albuminous substances. But hens kept as layers should be fed on that kind of grain which contains egg-producing elements.

In addition to the essential quality of albumen required in the organism of the fowls, the laying hen requires an extra amount for ovation—the white of the hen's eggs being about twelve per cent. of albumen—and this must be furnished in her feed. By referring to a chemical analysis of the different cereals, it will be seen that corn contains the greatest amount of fatty substances, while wheat contains a larger amount of albumen than any other cereal. To fatten hens, therefore, feed corn. To procure eggs, feed wheat. Meat once a day, in winter, will prove beneficial to laying hens.

I allow my hens to have free access to troughs always kept well filled with wheat screenings from the mill. If allowed to choose their own time for eating, hens will eat often but little at a time—never too much. Chickens should be furnished with plenty of limestone gravel. Some say pure water is essential to laying hens. I prefer to give them milk, as that fluid not only serves to moisten their food, but also contributes albumen, which goes to the formation of the egg.

Of course the kind of food, when there is not much variety, will have a special effect on fowls, animals or men; but we doubt whether this rule of selecting fatty oily grains to produce fat, and other grains containing "albuminoids" in abundance to obtain eggs in preference to fat, is a rule which sagacious poultry breeders will generally heed. A far better rule, in my judgment, is to let the flock select their own food as far as possible—that is, let them have access to such food as is known to suit them; let them have all they will eat of it, and "albuminoids" and the "fatty and oily substances" which it is deemed they should possess will not be slow in forming part of the chicken economy. The idea of feeding wheat as a specialty for eggs is probably about as correct as feeding egg-shells to produce other egg-shells. Some think it extremely important that lime, in the form of oyster or clam shells, or of pounded bones, should be given to fowls, or they will lay soft-shelled eggs. These substances make good grinding materials in the operations of the gizzard, but whether, if digested, they take on the form of egg-shells more readily than they assimilate to flesh, and feathers and bone, is not demonstrated, in my judgment. But if one article of food is a specialty for a certain part of the fowl—the egg-shells or the albumen, for instance—then we should know what to feed to produce feathers, or the horny material which enters into the beak and claws, or the

skin, or the eyes, or the intestines. Some Brahma chickens have a ridiculous habit, after parting with their down, of running about several weeks stark naked, or nearly so; cannot something be fed them to produce feathers at the right time, or something else to protect them against the heat or the cold? The answer, of course, is in the negative, and we strongly believe that the same is true as to what food will operate as a specialty for eggs or fat. A fowl's gizzard is a chemical laboratory, in which the nature of things is very materially and rapidly changed and appropriated to purposes which we cannot know very definitely. Fowls eat some things which, if they consulted our tastes, they would be sure to discard—things which cannot be mentioned always to ears polite, but it will embarrass chemistry to discover any trace of them in the eggs or the flesh. The best rule is to feed them what they like and plenty of it, and that of course includes a large variety. Let them choose their food where it is possible. They certainly tire of special articles when confined to them week after week, just as human beings do, and it is then that they go to eating eggs, or feathers, or even each other's flesh, and disgust their owners by refusing to lay eggs, or to grow large and fat. It is more science than they can stand; but give them a variety to choose from, and consult their known tastes to an intelligent extent, and that wonderful internal manufactory to which their food is consigned, will, as a rule, not fail to build up the hen in all her departments to the full gratification of her owner.

Timely Hints.

See that all your drains are now in good running order.

Don't spare axle grease if you have much teaming to do on the muddy roads.

This is a good time to start a compost heap. Gather up all the rubbish into a snug heap, and keep piling up all winter.

Now is the time to gather up all the bones lying about the premises, and convert them into a valuable fertilizer by any one of the methods often detailed in the *ADVOCATE*.

If you have regard for your health and that of your family, keep your surroundings clean and dry, and see that no heaps of decaying vegetable matter are found in the cellar or around the house.

In deciding upon the fields to be plowed in the fall, bear in mind that stiff soils are most benefited by fall plowing, the ground being more exposed to the action of frost. Any field infested with weeds, however, no matter of what class the soil may be, will be benefited by early plowing and late plowing, and plowing and cultivating all the time.

It is frequently urged that the fall is the busiest season of the year, because there is so much threshing to be done. If something must be neglected the important question arises, What shall that something be? The bulk of the work is the plowing, and no rule can be laid down as to which should be idle the longer, the thresher or the plow. Get both done if possible, but it is usually preferable to give the thresher the more rest. Amongst the most thrifty farmers, the threshing is delayed till winter.

Garden and Orchard.

Papers for Amateur Fruit Growers.

XIII.

(By L. Woolverton, Grimsby, Ont.)

GRAPES.

Among the DARK GRAPES

the *Concord* is still the leading and most reliable variety. Indeed, like the *Wilson* among strawberries, the *Baldwins* among apples, and the *Bartletts* among pears, it has long stood at the head of the list of grapes both for home use and for market.

It has not yet been proved that any other kind will produce as many pounds per acre as the *Concord*. The other day we counted no less than seventy beautiful clusters of fine grapes on one of our three-year-old vines! No doubt it was a mistake to permit it to carry such a load of fruit at that age; indeed, three or four bunches is the regulation amount for such a young vine. But the thinning was neglected when the grapes were small, and later in the season it would not have accomplished the same good, because so much vitality had already been expended in the production of fruit. But this is only an example of what its bearing qualities are, as acknowledged by all grape growers. It will more often need thinning out than it will deserve blame for short crops.

Another great advantage which the *Concord* has over many other varieties is its comparative freedom from insect enemies. The dreaded *Phylloxera*, an ugly but very tiny louse which subsists upon the root of the grape, and which has so devastated the vineyards of France, is said not to take much to the *Concord*.

The *Thrip*, or Grape-vine Leaf-hopper, is sometimes a great nuisance in the vineyard, and is very troublesome this season in many sections; but the *Concord* and other varieties of the *Labrusca* family have such thick, stout leaves, that they are able to resist the ravages of the Leaf-hopper better than such delicate growers as the *Delaware*, *Clinton*, *Salem*, etc.

Neither is the *Concord* so subject to the mildew and the rot as many other kinds.

For general purposes, then, in the family garden, we commend the *Concord* as the one most certain to give satisfaction in respect to both quantity and quality of any dark grape in the market, no matter what its extravagant claims may be.

But in planting for profit there are other considerations. Three cents per pound is too small a price to get for luscious *Concords*, and that to be lessened by express charges, commission and baskets. For this reason we look about for some varieties less commonly grown, that will bring more money.

The *Moore's Early* is sustaining its reputation as the earliest black grape of good quality, ripening in the *Niagara* district about the 1st of September, or about two weeks before the *Concord*. The *Champion* is falling into disgrace, it is so sour, and *Moore's Early* is driving it out of the market. In size, too, it is all that is claimed for it, growing even larger than the *Concord* or *Worden*, and thus far, at least, certainly bringing a better price. In bearing qualities, however, it does not quite equal the *Concord*.

The *Worden* is a grape very similar indeed to the *Concord*, so similar that many people cannot distinguish the two. This grape is claimed by Mr. T. C. Robinson, of Owen Sound, to be the very best black grape for Canada. Certainly it is more desirable for those parts of Canada where the seasons are too short for the *Concord* to ripen.

These are the three leading black grapes, but if another is needed, we would add *Rogers' 4* (*Wilder*), a very fine grape ripening about as early as the *Concord*, and of larger size.

Of the

RED GRAPES,

I would name *Lindley* (*Rogers' 9*) as the handsomest and most delicious red grape of reliable character.

A newer red grape, and one very delicious for home use, is the *Brighton*; it is larger than the old *Delaware*, but not so large as the *Lindley*. The *Delaware* was long held first and chief among the red grapes, but it has now largely given place to the varieties mentioned above. There is perhaps no variety so infested with the *Thrip* as the *Delaware*. I was walking through a friend's vineyard the other day, and was amazed at the dense clouds of these little insects which arose in my face from the rows of *Delaware* vines on either side; and upon examination, I found the vines much weakened in growth, and the crop ripening unevenly, owing to their depredations.

WHITE GRAPES,

Of these there are at least two or three that are prominent. Every year gives an increasing weight of testimony that the *Niagara* is no humbug, but destined to hold the position claimed for it as one of the most reliable of white grapes. It ripens as early as the *Concord*, but some say it is not quite as hardy. Mr. A. M. Smith, St. Catharines, showed some magnificent bunches at the Industrial Exhibition in Toronto this fall, which deservedly attracted a great deal of notice.

The *Lady* is also an early and reliable white grape, large and delicious. It ripens before the *Niagara*, and is most desirable for many places on that account.

I think that any one choosing from the above list for either his home garden, or for market, will get much satisfaction from the result, and be able to furnish his table with delicious grapes of three beautiful shades of color from September to Christmas.

Prof. Budd, of Iowa, tells of a row of chestnut trees planted on the old homestead, which were started from nuts planted eleven years ago. When nine years old the trees bore a fair crop of perfect nuts.

Mr. Roe, the horticultural writer, one October day took a stone pot of the largest size and put in first a layer of grapes, then a double thickness of straw paper, then alternately layers of grapes and paper until the pot was full. The grapes were *Isabellas*. A cloth was next pasted over the stone cover, so as to make the pot water-tight. The pot was buried in a dry knoll below the reach of frost, and dug up again on New Years. The grapes looked and tasted as if they had just been picked from the vine. The fruit must be thoroughly ripe and dry when put away.

Ontario Fruit Growers' Association.

The annual meeting of the above Association was recently held in Toronto. The President's annual address was read, and officers for the ensuing year were elected.

It will be remembered that the President, Prof. W. Saunders, was appointed by the Government to take charge of the Canadian fruit exhibit at the Colonial Exhibition. Most of his address pertained to his experience and observations with reference to the fruit collections. He said he had conducted a long and laborious series of experiments in preserving the fruits in glass jars in such a manner as to retain the colors, and had met with almost entire success. Whitish colors preserved readily, but there was a difficulty in getting a fluid that would prevent red from turning dull. He had made enquiries from leading chemists, physiologists and botanists, but he obtained little benefit from their answers. More than one half of the fruits exhibited were from Ontario; the samples from Australia were fresher, its fruit season being in March, but these from Canada were better colored, and more highly flavored. It was astonishing how much ignorance prevailed in England concerning Canada; the English could not believe that such fine specimens grew out of doors, and this idea became so prevalent that he found it necessary to post up a notice to the effect that the fruits were grown in the open air. Our fruit business would greatly increase if these erroneous ideas about our climate were removed. Our fruits sold there at prices which would be remunerative for our fruit growers here. The varieties which he had succeeded in preserving were:—*Baldwin*, *Northern Spy*, *Canada Red King*, *Wagner*, *Golden Russet*, *Roxbury Russet*, *English Nonpareil*, *Seek no Further*, *Mann*, *Vandevere*, *Swaar*, *Phoenix*, *Ben Davis* and *Limbirtwig*. Further selections of fruits would be made at our leading exhibitions, notably at Montreal, Toronto, London, Guelph, Hamilton, Sherbrooke, etc., and shipments to the Colonial would be made from time to time under the charge of Messrs. Allan and Demsey. The President spoke of his trip through various parts of Great Britain, and in comparing the general intelligence and skill of our farmers with those in Britain, he maintained that we were not behind.

Mr. Saunders resigned his position as President of the Association, and the Vice-President, Mr. A. McD. Allan, Goderich Ont., was elected President. The resignation of Mr. Saunders will be a heavy blow to the Association, but it is consoling to learn that Mr. Allan is so competent to fill the presidential chair. The Province owes Mr. Saunders a debt of gratitude for the ability and enthusiasm which he has displayed in our fruit growing interests. He is not only a skilled horticulturist, but also a practical entomologist and chemist, which sciences he has greatly utilized in the promotion of our horticultural affairs. To these distinguished accomplishments he adds sound judgment, an affable nature, and an honesty of purpose, which eminently qualify him to be the general favorite in all the circles in which he is personally known.

Another important change in the Association has taken place. Mr. D. W. Beadle, Secre-

tary, and editor of the "Canadian Horticulturist," who has creditably filled these offices for many years, also leaves behind a vacant chair. We need not waste words in introducing the new occupant, Mr. Linus Woolverton, M.A., Grimsby, Ont., who is well-known to our readers by his able contributions which appear in the columns of the *ADVOCATE*. Mr. Woolverton is one of our most extensive, most honorable and most intelligent of our fruit growers, and we believe he will fill his new office with executive ability.

Our farmers should bear in mind that the Fruit Growers' Association is supported by funds from the Ontario Government; and while we shall do all in our power to promote its interests, believing that fruit growing will long continue to be an important factor in our agricultural affairs, yet the *ADVOCATE*, as an independent journal, serving all the varied interests of our husbandry, reserves the privilege of criticising the Association with reference to its policy and its expenditures.

The farmer should always watch how the agricultural wind blows. Every boom, every sensation, reacts, with greater or less intensity, upon agriculture, and it often happens that booms in other departments of industry produce their effects upon farming. The newest sensation is the Colonial Exhibition, and no departments of our industry have been so prominently displayed as our dairy and fruit interests. This was to be expected, for our public expenditures have always been directed into these channels, our agriculture proper having received but little recognition, and our farmers have not been sufficiently organized to protect their interests and urge their claims. It is therefore quite likely that our dairy and fruit interests will receive a fresh impetus, and immigrant capitalists will invest more money in these branches than in other departments of husbandry. Fortunately, without depreciating Canada's fitness for agriculture proper, both dairying and fruit growing are specially well adapted to our conditions, and impetus given in these branches will be the means of bringing us into closer relationship with the world's markets—"a consummation devoutly to be wished." It will also check the rapid exhaustion of our soil, and will make us more scientific in our habits of thought. Many farmers will be benefited by being moved out of the old rut. No two branches fit better together than dairying and fruit growing; for, by liberal manuring, an abundance of excellent fruit can be so cheaply produced that canning and evaporating factories will be established all over the country, the products of which will readily find a foreign market.

Agents! Agents!

Good men can make more money canvassing for the *FARMER'S ADVOCATE* than at any other occupation. The balance of '86 given free to new subscribers. Specimen copies and terms forwarded upon application.

We want a good agent in every township in Canada to canvass for the *FARMER'S ADVOCATE*. Specimen copies and terms will be forwarded upon application. The balance of '86 given free to new subscribers.

The Apiary.

At the Industrial Exhibition.

The supply of honey and apiarian supplies in Toronto from year to year attracts wide attention, and is the most complete show of the kind not only in Canada, but in the world. The building set apart for this purpose was filled to its utmost capacity. The display of honey, both comb and extracted, was good, when we take into consideration that a large portion of this year's crop has left for the Colonial and the latter part of the season's honey crop was a failure. The amount exhibited was short of former years.

The centre of the building was taken up by the exhibits of apiarian appliances, and was far in advance of any previous year. The Toronto Industrial Exhibition Committee must be congratulated upon the encouragement it is giving to this somewhat new and important industry.

AT THE PROVINCIAL.

The number of entries in honey and some lines of apiarian appliances were more numerous than at the Industrial, but it is to be regretted that a fair of such importance as the Provincial should select men so incompetent and inexperienced as those appointed for the present year at Guelph. Men who did not know the difference between a wax and a honey extractor, and probably had never seen the interior of a hive, cannot be expected to be competent judges of such articles. The judging was unsatisfactory, and especially as to quality and display of honey.

AT THE WESTERN FAIR.

The show of bees, honey and apiarian supplies at the Western Fair, which has just closed here, was larger this year than ever before. About 10,000 pounds of honey were shown, and the largest display of supplies we ever had the pleasure of seeing at one time. There were five or six different kinds of hives and an almost endless quantity of other goods from the small green cage for mailing to the largest size of honey extractor. The display drew large crowds of visitors, and one man said he had come a good many miles on purpose to see our great honey show. A foundation mill was shown in running order.

Fall Work in the Apiary.

In an article published in the *Bee Journal* for Sept. 23, 1885, I stated that at the middle of the basswood honey flow I started the building of several queen-cells. We will now suppose that it is eight days later, and that the supers and surplus combs are all cared for.

If I wish to increase my stock of bees, I divide the strongest colonies, giving each hive about equal portions of bees, combs, brood and stores that was contained in the old hive; each hive is now half full of combs; fill each hive with brood-combs, and move the original hive 18 inches to the right, and the new one 18 inches to the left of the centre of the old stand. They are now 3 feet apart, and both facing in the same direction, and looking as near like the old home as possible, and the old stand vacant between them. Do this work late in the afternoon. In the morning the bees will work at both stands about alike.

I pay no attention as to which colony has

the old queen with them, but open them two days after and find queen-cells started in the queenless one. I then take a queen-cell from my stock of queen-cells that are now nearly ready to hatch, and place it between the top-bars of the brood-combs of the newly-made queenless colony. In due time I look the colony over, not for the queen, unless I chance to see her, but for eggs, and if I find them then I mark O K on the registering slate that hangs on the hive. If no eggs are found I give another queen-cell, and in due time repeat the search for eggs. It is many times quite difficult to find a queen, but it is very little trouble to look for eggs in the brood-combs. Very few colonies fail to rear a queen from the first cell given them. Now, that this work is done, I proceed to prepare all for winter.

I now go to hive No. 1, take off the covers, and spread the combs so that they measure about 1 1/2 inches apart from centre to centre; take out one or more of the nearest empty ones, and then all those that have capped honey in them I uncap, and then cover the hive for three days. I work each colony in regular order, as when I extracted. Then I look them all over again, and if honey is coming in, I find that all combs that contain no brood in the upper edge are being built out and filled with honey; but if there are no signs of new honey, then I begin to feed freely at the entrance every evening at sundown, or later; when the combs will soon be built out and filled with honey and capped. If the fall crop of honey should be plentiful, and the bees begin to load the lower portion of the combs so as to hinder breeding, then I remove one or more of the outside combs that are full of honey (and that seldom has much or any brood in it at this late season), and extract the honey and return the comb. If new honey keeps coming in I repeat the operation.

If at any time the honey-flow should cease, then I begin at once to feed, and keep it up until cold weather. I would feed at night during a honey-dearth if I had the hive so full that I had to take the honey away the next day to make room for the next feed.

Some may ask, why all this trouble? I answer, it is for several reasons, viz:

1. I find that bees thus managed through the fall of the year will build out the upper portion of the combs (what some call bridging them over), and a good supply of well cured honey, nicely capped over, is thus placed over the cluster, where it should be for winter.

2. The lower portions of the combs, that the bees cluster on through the winter, are so separated that large clusters can find ample room between each pair of combs. The bees are not so much divided. They preserve more of their animal heat, consume less food, and winter better.

3. Bees that find by the above management some fresh honey coming in all through the fall of the year, will keep up breeding until cold weather puts a stop to it, and a plenty of young bees are present in the hive that will be healthy and vigorous, while new batches of brood are reared in the spring.

On the other hand, if bees are able to gather no late honey, and no feed is given them regularly (as above), they will discontinue the breeding much earlier, and all bees that go into winter quarters are well advanced in life, and

The Household.

Long Life and Heredity.

One inherits from his ancestors, near or remote, more or less modified by the blending of the male and female lines, not only complexion, features, form, size, intellect, disposition, etc., but tendencies to particular ailments, and even the germs of positive disease.

Consumption can be traced along in some family lines for many generations, while in others it is almost unknown. So, too, asthma, gout, rheumatism, apoplexy, constantly reappear in some lines, while they are unknown in others. We should expect, therefore, beforehand that heredity would have much to do with the question of longevity, and it is a matter of common observation that it does.

Life insurance companies recognize the fact. Still it has not had the scientific consideration that it should have, and doubtless will have in time. Meanwhile, it is desirable to accumulate facts.

Says the London *Lancet*: "It would be interesting to study more closely, in the case of centenarians and other aged people, the ages of their near relatives and immediate ancestors." Of Sir Moses Montefiore, who passed his hundredth year, it says, "One parent died at seventy-nine, one at eighty-three, his grandfather at eighty-seven, his grandmother at ninety-three, a brother at seventy-five, another at sixty-nine, a sister at eighty-four, another at seventy-nine, another at eighty-two. These nine ages at death give an average longevity of eighty-one years. The first four—those of the parents and grandparents of Sir Moses—give an average of eighty-five years."

A long-lived ancestry, however, does not insure longevity, for many in such a line fail of reaching advanced age. Indeed, vigor of constitution often leads to suicidal violations of physical law. It is therefore a matter for congratulation if one has inherited the long-lived tendency, but the rich gift should be well guarded, for physical vigor is apt to render one thoughtless of the little things that sap the foundations of the grandest constitutions.

Let him, also, who has inherited but a poor patrimony of health remember that, after all, there is nothing like taking good care of one's self. By obedience to the laws of health, he may reserve the hereditary tendency.

Advice to Stoop-Shouldered People.

A stooping figure is not only a familiar expression of weakness or old age, but it is, when caused by careless habits, a direct cause of contracted chest and defective breathing. Unless you rid yourself of this crook while at school you will probably go bent to your grave. There is one good way to cure it. Shoulder braces will not help. One needs not an artificial substitute, but some means to develop the muscles whose duty it is to hold the head and shoulders erect. I know of but one bull's eye shot. It is to carry a weight on the head. A sheep-skin or other strong bag filled with twenty or thirty pounds of sand is a good weight. When engaged in your morning studies, either before or after breakfast, put the bag of sand on your head, hold your head erect, draw your chin close to your neck, and walk slowly about the room, coming back, if you please, every minute or two

to your book, or carrying the book as you walk. The muscles whose duty it is to hold the head and shoulders erect are hit, not with scattering shot, but with a rifle ball. The bones of the spine and the intervertebral substance will soon accommodate themselves to the new attitude. One year of daily practice with the bag, half an hour morning and evening, will give you a noble carriage, without interfering a moment with your studies.—[Hall's Journal of Health.

The Sound of Life.

Two children down by the shining strand,
With eyes as blue as the summer sea,
While the sinking sun fills all the land
With the glow of golden mystery;
Laughing aloud at the sea-mew's cry,
Gazing with joy on its snowy breast,
Till the first star looks from the evening sky,
And the amber bars stretch over the west.

A soft green dell by the breezy shore,
A sailor lad and a maiden fair;
Hand clasped in hand, while the tale of yore
Is borne again on the listening air.
For love is young, though love be old,
And love alone the heart can fill;
And the dear old tale, that has been told
In the days gone by, is spoken still.

A trim-built home on a sheltered bay,
A wife looking out on the listening sea;
A prayer for the loved one far away,
And prattling imps 'neath the old roof-tree;
A lifted latch, and a radiant face
By the opening door in the falling night;
A welcome home and a warm embrace
From the love of his youth and his children bright.

An aged man in an old arm-chair;
A golden light from the western sky;
His wife by his side, with her silvered hair,
And the open book of God close by.
Sweet on the bay the gloaming falls,
And bright is the glow of the evening star;
But dearer to them are the jasper walls
And the golden streets of the land afar.

An old church-yard on a green hill-side,
Two lying still in their peaceful rest;
The fishermen's boats going out with the tide
In the fiery glow of the amber west,
Children's laughter and old men's sighs,
The night that follows the morning clear,
A rainbow bridging our darkened skies,
Are the round of our lives from year to year!
—Alexander Lamont.

Entertaining Company.

I pray you, O excellent wife, not to cumber yourself and me to get a rich dinner for this man or this woman who has alighted at our gate, nor a bedchamber made ready at too great a cost. These things, if they are curious in, they can get for a dollar at the village. But let this stranger see, if he will, in your looks, in your accent, and in your behavior, your heart and your earnestness, your thought and will, what he cannot buy at any price at any village or city, and which he may travel fifty miles and dine sparingly and sleep hard in order to behold. Certainly let the board be spread and bed be dressed for the traveller, but let not the emphasis of hospitality be in these things. Honor to the house where they are simple to the verge of hardship, so that the intellect is awake, and love, honor and courtesy flow into all deeds.—Emerson.

Care of Umbrellas.

Umbrellas will last far longer if when wet they are placed handle downward to dry. The moisture falls from the edges of the frame and the fabric dries uniformly. If stood handle upward, which is commonly the case, the top of the umbrella holds the moisture, owing to the lining underneath the ring, and therefore takes a long time to dry, thus injuring the silk or other fabric with which it is covered. This is the prime cause of the top of the umbrella wearing out sooner than the other part. Umbrella cases, too, are responsible for the rapid

wear of silk. The constant friction causes the tiny holes that appear so provokingly early. When not in use, leave the umbrella loose; when wet, never leave it open to dry, as the tense condition thus produced makes the silk stiff, and then it will soon crack.

Care of the Hands.

There are not nearly as many secrets in hand treatment as people imagine. A little ammonia or borax in the water you wash your hands with, and that water just lukewarm, will keep the skin clean and soft. A little oatmeal mixed with the water will whiten the hands. Many people use glycerine on their hands when they go to bed, wearing gloves to keep the bedding clean; but glycerine does not agree with every one. It makes some skins harsh and red. These people should rub their hands with dry oatmeal and wear gloves in bed. The best preparation for the hands at night is white of egg with a grain of alum dissolved in it. Quacks have a fancy name for it; but all can make it and spread it over their hands, and the job is done. They also make the Roman toilet paste. It is merely white of egg, barley flour, and honey. They say it was used by the Romans in olden time. Any way, it is a first-rate thing; but it is a sticky sort of stuff to use, and does not do the work any better than oatmeal. The roughest and hardest hands can be made soft and white in a month's time by doctoring them a little at bed-time, and all the tools you need are a nail-brush, a bottle of ammonia, a box of powdered borax, and a little fine white sand to rub the stains off, or a cut of lemon, which will do even better, for the acid of the lemon will clean anything.—*Scientific American*.

FAN COVER FOR FLOWER POT.—Very pretty covers can be made out of the Japanese fans, which can be so cheaply bought. Remove the fastening which holds the sticks together at the bottom, and cut them off close to the lower edge of the fan. Make two holes in the sticks at each side of the fan, one an inch from the upper end, and the other the same distance from the lower. Run a fine thread through each fold of the fan at the top and bottom, and fasten at each end after drawing it up to the right size to fit around the pot it is to cover. If very fine thread is used, and small stitches taken, they will show but little. Put a coarser thread through the holes in the stick, and fasten the cover on the pot by putting the thread through the opposite holes and tying it. It is well to select the fan with some regard to the color of the flowers of the plants it is to be near. For the cover of a pot holding a geranium with bright scarlet flowers, a fan with a gray ground, covered with figures in which black, blue and gilt predominate, would look best, but for a rose geranium or an ivy, a bright-colored fan could be used with good effect.—*Agriculturist*.

TWINE BALL.—A convenient trifle for a housekeeper is a ball of twine fitted in a knitted case of bright colored work—like the soft parlor balls used by young children—but with a hole at the bottom, through which the string passes and unwinds from the inside of the ball. Suspended from it is a small pair of scissors on a narrow satin ribbon—loops of the same ribbon being used to hang it on the wall, where it will always be at hand when there is a parcel to be tied up.

Family Circle.

SO BLUE!

A Story of a Girton Girl.

"My child, you have more than fulfilled every hope I ever formed of you. I knew when I sent you to Girton that you could not fail to acquit yourself well, but I did not look for this."

Magdalen Foster blushed with pleasure at her father's words, as well she might, for the letter in her hand announced that the papers sent up by her at the recent Classical tripos entitled her to the first place in the First Class. The fact of her womanhood stood in the way of the B. A. degree being actually conferred upon her, but that was a matter of no consequence whatever to a girl who had worked solely for the love of knowledge implanted and fostered in her by a scholarly father.

"Well, Magdalen, I'm sure I congratulate you heartily," said her sister Nora; "and all the more so because now at last I suppose you will consider yourself blue enough."

The blush of pleasure now faded from Magdalen's cheeks. "I never wanted to be blue," she said nervously.

"Then I'm afraid you have succeeded without the wanting," laughed Nora. "Why, my dear, you are a blue of the very deepest dye; and you not only are it, but you look it. You don't go about in cap and gown, or with spectacles and inky fingers, but there is no mistaking in you the model of a 'sweet girl graduate.'"

There was a certain amount of truth in this. Magdalen, especially by the side of the pretty if rather dollish-featured Nora, was studious-looking, to say the least. She was tall and stooped slightly, her complexion though clear was colourless, and she had the reflective, full look that is not unfrequently the sign of habitual study. Yet her face was singularly sweet in expression, the open, tranquil brow seeming incapable of frowning, the brown eyes might be dreamy but never irate.

"Magdalen," asked her father after awhile, "are you still quite willing to become my amanuensis?"

"Oh! papa," returned the girl, eagerly, "I shall be so proud if you will let me."

Mr. Foster was an eminent student of the classics, and it had always been Magdalen's great ambition to help him in the preparation of his valuable works. She did not foresee all the results of her college achievements, and of this new relation to her father. It did not occur to the simple-minded girl that there was anything in what she had done to alienate her from her old acquaintances. Yet so it was. Quite unconsciously she awed her contemporaries, who, girlish and young alike, fought shy of so distinguished a "blue-stocking." Married women, again, found her ignorant of their domestic interests, while she was too timid to open out to elder men. Children, alone, unable to comprehend the talk about her learning, were guided by the simple sweetness of her face, and she made a plaything of her.

With them she could be happy, but in the midst of people who insisted upon paying her compliments and treating her with deference, her manner became stiff and distant for very shyness. Society became distasteful to her, and gradually people left off inviting her, under the mistaken impression that she was above caring for any entertainment they could offer. She remained Miss Foster only in name; to all intents and purposes Nora was the elder sister. While Magdalen had been poring over her books, Nora had studied the art of making herself agreeable, and assiduously cultivated various useful gifts. She was musical and clever with her pencil, could ride, and play tennis well; also she had the bright attractive beauty that trebles the value of all such social accomplishments. And above all she knew exactly how to turn every one of her good points to the best possible account. It will thus be seen how easy it was for her to keep Magdalen in the background, and by skillful insinuations throw her own good qualities into greater relief than ever.

One evening they were taken by surprise by the unexpected arrival of Will Fairbairn, an old friend and playfellow. Dinner was just being served, and the young man took his seat among them, laughing and putting up his hands as if to petition against the volley of questions and exclamations with which he was saluted.

"I haven't distinguished a single word any one has said," he declared at last. "But I imagine you are asking where I spring from and what I've come about. Briefly, then, I'm off to the Cape in a month's time, and have come to bid you all a long farewell."

"Farewell! The Cape!" exclaimed the Fosters. "What do you mean?"

"I've had £5,000 left me by an aunt," Will proceeded to explain; "and a friend has strongly advised me to invest it in ostriches. He says they pay tremendously and the life is delightful. I have consulted every possible authority and really don't see that I could do better. I hate office work, I haven't the brains to take up a profession, and farming in England is no go. And I consider I am rather cut out for a colonist."

He ended in a tone of modest self-appreciation, which was not unwarranted, for he was a man of splendid physique. Besides which, all his tastes fitted him for an occupation demanding physical rather than mental ability. He had never cared for college without disgracing himself he was content, and devoted his heartiest energies to the athletic sports in which his soul delighted.

Dinner over, Mr. Foster rose almost immediately from the table.

"Can you spare me an extra hour this evening, Magdalen?" he asked.

"Certainly, papa, I will come at once," remarked Will as he and Nora strolled out into the garden together. Nora offered her own explanation, taking care to speak in the most affectionate, sisterly tone.

"Yes," she said; "you are right. You see ever since Magdalen returned from Girton she has been encouraged in her devotion to study. People express the greatest admiration for her talents; then papa has made her his secretary, and so, without being in the least conceited, she naturally feels that she is superior to the girls she ordinarily meets. You know, Will, I can't help thinking it was a mistake to let her grow so very learned. I think it is a woman's part to be helpful and domestic, to take interest in the good management of small matters, and in the welfare of those about her."

"Why can't Magdalen be domestic as well as intellectual?" demanded Will, moodily. "I don't see the incompatibility."

Nora did not choose to tell him that Magdalen had begged to be allowed to take part in household affairs, and that she herself had opposed the suggestion. She had gained a character for domesticity, and did not wish to have her supremacy sh-rud.

"I dare say there is no actual incompatibility," she admitted gently, "but Magdalen is so wrapped up in her work for papa that we never think of occupying her mind with matters which I am quite willing to see after myself. Why should she be bothered? She is not the girl to marry, unless indeed"—Nora laughed gaily—"she could find a man who was all intellect and had no bodily needs to be ministered to."

Poor Will! Magdalen joined them in the garden later on, but for his own sake he held aloof from her. The girl was greatly hurt, as of old she had been his special friend. Too shy to complain, however, she shrank into herself, and with a pang of regret saw Will fall into the way of the world, treat her, namely, with distant respect, and Nora with familiar friendliness. He had not been at Foster's many days before his name was coupled with Nora's by all the match-makers in the neighbourhood. The good people were much mistaken. Will might walk, ride, and play tennis with Nora, or even constitute himself her cavalier and escort on every possible occasion, but secretly his heart went out towards Magdalen. Yet how, after Nora's words, could he dream of betraying his devotion? How could he, a man whose only attainments were those of physical strength and agility, hope to please a girl thrown both by training and natural bent into the midst of purely intellectual interests? Sadly he told himself that she was not for him.

And Magdalen as sadly told herself that somehow she had forfeited Will's friendship, by which, had he only known it, she set great store; and perhaps his want of learning was the thing she liked best about him, so cordially did she hold her own blueness in abhorrence.

Thus were the two kept apart by a phantom barrier raised between them by Nora, who, without caring for Will herself, resented the preference for Magdalen. She was under no misapprehensions as to his feelings, and yet a petty jealousy debarred her from doing what lay in her power towards bringing about a better understanding between him and her sister. Will's last day arrived. A large tennis party was to take place at Foster's in the afternoon, as a sort of farewell entertainment for him, and he did his best to throw those of physical strength and agility, hope to please a girl thrown both by training and natural bent into the midst of purely intellectual interests? Sadly he told himself that she was not for him.

Magdalen shook her head.

"No," she said shyly, "I don't play tennis."

"Of course not," laughed Nora. "Will, what an extraordinary idea! As if you didn't know Magdalen was above such things!"

"It is not that," said Magdalen, colouring; "but that tennis is above me. I tried it again and again at Girton, but it was never any good. I only spoil every set I play in."

"Oh, well, you can't play or you won't," said Nora impatiently. "It's all the same."

Nora's sudden ill-temper seemed very unbecoming, but she was under no misapprehensions as to his feelings, and yet a petty jealousy debarred her from doing what lay in her power towards bringing about a better understanding between him and her sister. Will's last day arrived. A large tennis party was to take place at Foster's in the afternoon, as a sort of farewell entertainment for him, and he did his best to throw those of physical strength and agility, hope to please a girl thrown both by training and natural bent into the midst of purely intellectual interests? Sadly he told himself that she was not for him.

Magdalen went a little pale as she answered, evasively, "Every one likes to have Nora for a partner."

"Yes, yes, I know; but not in the sense I mean. What a loss she will be to us all! Now, tell me, do you think Mr. Foster will let her go out with him, or will they have to wait?"

This was going too far, Magdalen thought.

"The question has not been discussed yet," she replied distantly; and, awed by her manner, the young lady subsided into silence.

Magdalen went up to her room, when the party was over, in a very miserable frame of mind. As she cast a retrospect over her life of late, it seemed to her that her success at Cambridge had cost her everything she most cared about. She did not know how much her three years at Girton had done for her. She was not in a position to realise the all-important difference between her habit of mind and that of Nora's, between her unworldliness and Nora's worldliness. It is worthy of note that these so-called Girton and Newham "blues" are, for the most part, especially simple girls.

The twilight deepened, and at last Will could delay the inevitable leave-taking no longer. Magdalen kept on the stairs. Will's going was the most terrible thing that ever had happened to her, and she would rather not say good-bye to him at all than have to do it carelessly before them all.

"Where is Magdalen?" asked Will presently.

"She was looking out something in Herodotus for me just now," said Mr. Foster. "Eva, go and call her; tell her Will is waiting to say good-bye."

Poor Will! It was a bitter thought that she could not leave her Greek of her own accord even to bid him farewell.

"Magdalen is not in the study, papa," said the child, returning. "Jane says she saw her go down the garden and into the copse."

"I will go to her there," said Will hastily.

The copse referred to was a small preserve just outside Mr. Foster's garden, and it was not many minutes before Will found Magdalen. She was lying on the ground in the dusk, her face buried in her hands, and her whole frame shaken by violent sobs. In a moment he was kneeling beside her.

"Magdalen," he exclaimed anxiously, "what is it?"

At the sound of his voice Magdalen rose, and checked her tears. "Nothing, Will," she said, with quivering lips.

"Don't say nothing when you mean something," said Will. "Maggie, tell me, what is the matter?"

He was the only person who called her Maggie, and now the old pet name used, for the first time this visit, renewed the confidence that had existed between them as children.

"I'm so unhappy," said Magdalen. "I'm so dull, and blue, and stupid. I'm no good to any one, and nobody cares for me."

"Now, Maggie," said Will, "you have told at least half a dozen fibs. You are not dull, you are not stupid, you are not blue, and you are not stupid. Blueness is particularly charming; you are good for a great deal, and everybody cares for you."

Magdalen shook her head.

"Don't be unreasonable," remonstrated Will—"what about me? Don't I care for you?"

His voice was full of a tenderness which Magdalen shyly ignored.

"You used to," she said.

It was all over with Will; no power on earth could have held him back now from pouring out his confession to her.

"Magdalen," he said, "if I tell you I love you, worship you, think of nothing but you night and day, could you answer anything but that you don't care a straw whether I do or not?"

It was out now. Magdalen stood and gazed, as if she could not believe her ears, at the hand that had grasped hers. At last a smile of wonderful happiness stole about her lips.

"Why, Will," she said, raising her eyes to his, "it was just you I minded most of all about; but you don't care, you really mean—"

Will did not find it very difficult to satisfy her that he could and did mean all and more than he had said. Great was the amazement of the Fosters when presently they re-entered the sitting-room together, and Will announced that he never meant to say good-bye to Magdalen at all.

Mr. Foster's consent given, he changed all his plans, invested his capital in England after all, and eventually settled down on a large farm near the Fosters, as a happy husband, with as happy a wife, as was to be found in the United Kingdom.

Is that possible? Could they live for long together without the difference between them becoming a discord?

Yes; for, as the wise professor at the breakfast-table points out to us, "It takes a very true man to be a fitting companion for a woman of genius, but not a very great one." H. L.

Notes on Grasse and its Chief Industry.

BY WM. SAUNDERS, F. R. S. C., F. L. S.

A few notes from this interesting old town, with some references to its chief industry, may possibly prove of interest to some of your readers. It is a land of flowers, where a large proportion of the perfumes of the world is made, and such an odd, out-of-the-way corner of the country that but few visit it. Here odorous flowers are grown in immense quantities for the purpose of preparing the sweet scents in which civilized mankind and womankind delight, and it is from this district that perfumers everywhere obtain the chief ingredients from which by skillful combinations their celebrated perfumes are

manufactured. On the main line from Paris to Rome, via Marseilles, about 660 miles from Paris, lies the town of Cannes, on the Mediterranean shore, a noted health resort for invalids from Great Britain and other countries, where the winter climate is remarkably mild and agreeable. Here a branch line of railway about 20 miles in length brings the traveler to Grasse. At Cannes the chain of mountains which for many miles on either side runs along the seashore, retreats to some distance inland, and the route to Grasse lies up through narrow valleys and broader slopes of hill and dale. For the first few miles the general aspect of the country is rather desolate; vegetation seems parched and stunted; even the pine trees are dwarfed, and the wayside weeds lack vigor. But soon vegetable growth becomes more luxuriant, fertile belts are reached, and fields of roses, jasmine, mignonette, violets and other flowers are seen on every hand, while groves of olive trees clothe the hillsides, along with plantations of the vine and of the fig tree. As Grasse is approached the valley widens to about 4 or 5 miles, the mountain slopes are gray with olive trees, and nearly the whole valley is utilized for flower-growing.

The town, with a population of about 12,000, lies high up the mountain at the end of the valley, where the roads and narrow streets are so steep that the occupant of the ground floor of the back part of a house may often look out of the third story at the front of it, and where the quaint old houses tower up to six, seven and even eight stories high at the front. The route leads through fields and gardens of roses, jasmine, jonquills, tuberose, etc., up steep winding streets and alleys, where long flights of steps afford short cuts from one point to another in the town, and where buildings hoary with age greet the eye of the visitor at every turn. Mountain torrents stream down the hillsides here and there, affording water power for the ancient looking olive mills and means of irrigation during the hot weather for the flower-growers. These streams also fill the public troughs with pellucid water, where crowds of women may be seen washing clothes from early morning until dark. It is said that this town was founded 300 years before the Christian era; it is known to have been an important Roman station, and its excellent water privileges must have been a strong incentive to its early settlement. Nearly all the population excepting those engaged in mercantile business, and a few hundreds who are employed in the manufacture of olive oil, are engaged, either directly or indirectly, in the flower industry. The shopkeepers display their wares in the tiniest little shops, in which they have scarcely room to turn about; the hotels are antique country inns; but the air at this season is balmy and delightful, and the views from the upper part of the town charming.

There are about 60 firms or individuals in Grasse engaged in the manufacture of perfumes from flowers. Three or four of these are very large establishments, the others smaller. The harvest period here is a long one. It begins in February with the violet and the jonquill, which keep the perfume-makers busy until the end of March, when the mignonette comes in, which is followed in May and June by the orange flowers and roses, and in July by the jasmine, then with the rosemary and lavender, which are succeeded by the tuberose and cassia, which

keep the trade busy until quite late in the autumn.

In company with my genial traveling companion, Prof. J. P. Remington, I visited some of the principal establishments, where we were received with much kindness and courtesy; but to Mr. Warwick, of Warwick Frères, we were indebted for special attention. We found that, while most of the larger manufacturers have flower plantations of their own, the bulk of the crop is grown by the peasants and small landholders, who, during the season, bring them daily to the factories. We rose early in the morning and drove into the country, hoping to see some of the flowers gathered, but the flower-growers were up before us, and had their fragrant crops collected and packed in sacks ready to take to the manufacturer before we reached the ground. Nothing is known here of the movement in favor of short hours for the working man.

It has long been known that fatty substances absorb odors very readily and retain them with much persistence. The perfumers of ancient Greece and Rome understood this well, and made use of such substances to steep flowers in for the purpose of extracting their odors. At Grasse fatty substances are largely used for the same object, and the pomades made their consist of fat strongly impregnated with the odors of flowers, which odors may be extracted from the pomades by exhaustion with alcohol and used as spirituous perfumes.

Pomades are made by two very different methods, the one by maceration, the other by what is known as the process of *enfleurage*. Pomades of rose, violet, mignonette, cassia and orange flower are all made by macerating the flowers in fat warmed to 60° C. The fat is allowed to remain in contact with the flowers for several hours and occasionally stirred, after which it is put under a powerful hydraulic press, by which means the fat is expressed with but a trifling amount of waste. The same fat is thus treated daily with fresh flowers for from 20 to 30 days, during which time it becomes strongly charged with the odor of the flower.

The jasmine and tuberose pomades are always made by the other process. A large number of frames or "chassis" are prepared, each of which is fitted with one pane of glass about 18 x 24, set in a wooden frame, so that the wood may project on either side of the glass about $\frac{1}{2}$ inch, and each side of the glass is coated with a layer of fat about $\frac{1}{2}$ inch thick. The woodwork of these frames is so constructed that when laid the one on the other they fit very closely, so as to avoid any waste of odor. The freshly gathered flowers are strewn over the fat in each frame in a thin layer and the frames then piled one on the other to a convenient height, the upper and lower frames in each pile being coated with fat only on that side next to the flowers. The odor emitted by the flowers is rapidly absorbed by the layers of fat above and below them, and after 24 hours of exposure they are practically exhausted. Every morning the trays are examined, the old flowers thrown away and fresh ones put in their place, the surface of the fat both above and below being broken every few days by a toothed spatula, and mixed so as to present a fresh surface. This process is continued for about thirty days, by which time the fat has become saturated

with the odor, when it is scraped off the surface of the glass and packed in tin cans, the process being continued with fresh fat as long as the flower harvest lasts. Some of the large factories have many thousands of these frames.

The buildings in which this work is carried on are built either of stone or brick, where the temperature is maintained as low as possible, so as to prevent the fat from becoming rancid. The fat is composed of a mixture of lard and mutton suet, melted together and carefully washed and treated until it is free from all trace of fatty odor. It is then slightly perfumed with orange flower, which is said to aid in preserving it from change. The fat is usually prepared during the winter months and stored in cool cellars until wanted for use.

Roses are picked in the bud every morning just as the buds are about to open. They are picked with the green calyx attached, and this appendage is removed in the factories by the women employed there before the roses are treated.

Mignonette is picked before the seed pods are formed. The flowers of the violet, jonquill and tuberose are picked with the calyx attached, but the jasmine flowers are pulled free from their calyx in picking.

The following are about the average prices paid for the flowers as they are received at the factories:

Roses, 8 to 10 cents per kilogram; orange flowers, 17 cents per kilogram; violets, 70 to 80 cents per kilogram; jonquill, 60 cents per kilogram; mignonette, 40 cents per kilogram; jasmine, 50 cents per kilogram; tuberose, 50 cents per kilogram; cassia, \$1 per kilogram.

At these figures it is said that the growers can make far more off their land by devoting it to flowers than they can from any other crop.

A large quantity of orange flowers are used for the preparation of oil of neroli and orange-flower water. To obtain these products the flowers are placed in large copper stills with water; steam is introduced and the water made to boil, when vapor arising is passed through coolers into suitable receivers. A small quantity of oil gradually accumulates on the surface of the water, which is removed from time to time. The water which collects in the receiver is the orange-flower water of commerce. The largest of the rose crop is similarly treated, and rose water with a small proportion of otto of rose is the result.

Distilled perfumed waters when first made have a rank and rather unpleasant odor, which is softened and becomes quite fragrant after they have been kept a few months. While undergoing this mellowing process it is necessary that the jars in which these waters are contained should be uncorked. They are left either open or tied over with a piece of brown paper to exclude dust.

It is difficult to obtain reliable statistics of the quantity of flowers grown in this district, but the following may be taken as approximately correct: It is estimated that the 60 firms or individuals engaged in the manufacture of perfumes in Grasse consume annually about 3,000,000 pounds of roses, 4,000,000 pounds of orange flowers, 160,000 pounds of jasmine, 40,000 pounds of mignonette, 40,000 pounds of tuberose, 200,000 pounds of violet, and smaller quantities of jonquill and cassia. They also use large quantities of orange leaves for the preparation of oil of petit grain, and immense quantities of lavender, rosemary and thyme, from which the oils of these plants are distilled.

The aggregate value of the perfumes exported from Grasse is said to be about \$3,000,000 annually.

Minnie May's Department.

MY DEAR NIECES.—Again we will take a passing glance at the fashions for the coming season, in order to have a better idea of what would be nice to make up with that old dress or how to make and trim the new one.

Fancy woollens for autumn toilets are in great variety; stripes, checks, dots and crescents being among the favorites. Dark blue, leather brown, Russia leather red, bronze and dark purple are the colors most in vogue.

The rough-looking woollen materials are more in favor than ever for walking costumes, and are seen in plain or in stripes of two different shades of color. These are made very simple. The overskirt remains open on the left side; at the back it is pleated in full double pleats; in front, pleated across and slightly draped up over the left hip. The underskirt which shows in the opening is generally either of some plaid material or striped; the bodice is either made Jersey-fashion or in the shape of a



jacket, with a plastron of plain or striped surah.

The travelling costume, which is at once the most simple and practical of the season, is that made of the style of material employed for gentlemen's morning-suits, namely, a thin fancy cloth, finely checked in black or dark blue and white. The underskirt is edged with a narrow fluting; the second skirt edged with either Mohair braid or velvet, tunic trimmed or not with velvet and falling at the back in large, straight, full pleats. Plain serge is becoming a popular fabric for general wear, with a little fancy material in combination, or even by itself, with only buttons, stitching and occasionally a little braid used for trimmings, brown, navy blue, gray, olive, bronze and tan being the most desirable colors. These serges are also very serviceable for travelling dresses and cloaks, as they do not wrinkle or soil readily.

A great deal of black and white appear in new cloth, the principal styles being in narrow stripes from two to three threads wide, with black stripes half an inch or more wide between, also checks and blocks in black and white, and some very pretty mixtures of the two.

Bodices have a tendency to become more and

more long-waisted, with a peak in front and sometimes at the back.

The plastron will be made this season over the bodice, and of striped or brocaded silk over a cloth or cashmere dress.

Velveteen promises to be fashionable.

Striped and brocaded velvets will be much employed for dressy toilets this season, combined with silk repp, plain and corded silks.

The jacket of the future is made in rough

ferent kinds of serge in bright or dark colors, either trimmed with light or dark braid or some glossy silk material. The skirts are mostly box-pleated, the pleats being wide but flat, and often kept in place by braided silk or velvet tabs. The blouse, or jacket corsege, are chosen to match the skirt ornamentations, and the latter style is made with slits up the back seams and edged with small gilt or bright contrasting buttons. Large white collars and cuffs of serge or cashmere stitched out with dark silk and with small devices at the corners. An open vest is now frequently added to the pleated frock.

Red is a favorite color for everything.

Wide strings are coming into fashion once more with the new bonnets.

Sleeves are cut tight only from the elbow to the wrist this fall, and not above the elbow as formerly.

Draperies are long and full and have no looping at the back.

Big and little buttons are both worn on the same suit or garment.

MINNIE MAY.

**Work Basket.**

KNITTED LACE.—Cast on 22 stitches; knit across plain.

1st Row—Knit 3, over and narrow 4 times; knit over twice and narrow; knit 8 plain.

2nd Row—Knit 1, purl one, knit rest plain.

3rd Row—Knit plain.

4th Row—Knit plain.

5th Row—Knit 3 threads over, narrow 4 times; knit over twice, narrow, over twice and narrow, knit six.

6th Row—Knit 7, purl 1, knit 2, purl 1; all the rest plain.

7th Row—Plain, knit 3, purl 8; the rest plain.

8th Row—Plain.

9th Row—Knit 3, purl 8, knit 1, over twice, narrow, over twice, narrow, over twice, narrow; slip 4 from the left hand needle to the right without knitting, narrow the last two together; slip the slipped stitches over the last one by taking the left hand needle in the last stitch; pull it over as in slip and bind and continue until the four slipped stitches are all over the last stitch.

10th Row—Narrow 2 stitches, knit 1, purl 1, knit 1, purl 1, knit 1, purl 1; knit the rest plain.

cloth of various, but chiefly dark, colors. It is short and very jaunty looking.

Small mantelets, with the fronts turned up so as to form sleeves, are made of fancy woollen materials in shades of gray and beige; they are trimmed with woollen braid or fringe to match. For more elegant mantles, velvet, plush and beaded fabrics are employed. The trimmings are of galoon, fur, beaded fringes and feather bands.

Useful every-day dresses for children of five and seven or eight years are arranged of dif-

11th Row—Knit 3, purl 8; the rest plain.
12th Row—Plain; commence again at the first row.

TABLE SCARF.—Is made of a long half-width of coarse linen cheese-cloth; each side has an inch-wide hem, with the hem stitch taken with red silk. On each side is a three-inch wide hem finish in the same way. An inch above the wide hem is an inch-wide band of drawn work, and another the same width six inches above. The space between is occupied by a jumble of figures cut from chintz (not thick cretonne) and French calico—birds, flowers, foliage, circles, diamonds, and all sorts of small figures being laid on without apparent design, and couched on the edges with gold thread. The effect is quite Chinese and very pretty and rich looking. The scarf is pretty, thrown carelessly over a large picture either on the wall or on an easel.

CURTAINS.—There is no one thing that adds so much to the furnishing of a room as curtains. With a good carpet, nice walls, and tasty curtains, though you may have little furniture in your room, it will look quite elegant. There is no greater mistake made by people furnishing than putting all their money into a parlor set, and leaving only enough to buy dark shades for their windows. Where a house is without shutters, dark shades seem a necessity; but uglier things could not have been thought of than the present fashionable shades—dark gray and brown. They make the house gloomy within, and look outside as if no one lived in the house.

For shades there is nothing prettier than white, and nothing wears much better. I have some that have been in use five years, and do not look so very bad yet. The dust slips off of Holland very easily, and if the large brass rings are attached to pull them down with, they can be kept free from finger-marks. But inside the shades some drapery is necessary to give a graceful appearance to the windows. These can be of Swiss, scrim, or Canton flannel, as one fancies. If the windows are a north look-out, Swiss could be used very well; these are pretty, made to part in the centre, and edged, with antique or coarse torchon lace, and at the top set in large box-plaits, and fastened to rings slipped on a pole. It is not necessary to purchase the heavy, expensive poles and rings at the stores, if you choose to manufacture your own. Have a pole turned at the carpenter's a little longer than the width of the window; into the end fasten a knob, which can be bought at a hardware store, together with martingale rings of iron, which can be covered with crocheting in brown zephyr. Sew these at equal distances along your curtains, and hang them on two large hooks, which can be purchased at the hardware store. The curtains should only reach the floor; loop them back a little below the middle of the window with ribbon, and not at the window-sill, as formerly.

For a door, a pretty curtain is made of tarlatan, very full, gathered on a string at the top and bottom; part it in the middle, and tie back to each side with a ribbon, so that the opening forms a diamond. Inside of this have a red or white shade to draw down for privacy.

A very pretty way to fix a window looking out upon an unpleasant scene is to dissolve Epsom salts in beer until it is the consistency of

cream, and put it upon the glass with a sponge. It will form the most beautiful shapes—equal to Jack Frost's paintings. This arrangement keeps from view ugly sights, but does not keep out the light.

If the curtains are made of Canton flannel, the trimming should be broad bands of another contrasting color, put a foot from the top, directly across the curtain, and on a line with the window sill place another band. Nine inches, at least, in width should the bands be; line the curtains with thin cambric, and trim on the edges with worsted fringe. With the great abundance of material, it is very easy in these days to make home beautiful, if one has taste; and one cannot do that with plenty of money unless they have taste. The great trouble with many homes is, there is too much mixture in them. To have everything, one must have a large house; and when people learn to furnish houses according to the house, we shall see more pretty homes. Furnish cottages in cottage furniture, and leave the massive style for larger houses.—[Ladies' Guide to Fancy Work.

BABY SOCKS.—Cast on thirty stitches on an ivory crochet hook, medium size, then after the stitches are all on the hook, put the zephyr over the hook and draw through two stitches or loops at a time until the stitches are all off (same as afghan stitch), next time put the zephyr over the hook once before taking up each loop and knit them until you have taken up the thirty stitches or loops on the hook. Proceed as before. Knit across in this way nine times, then double the short edges together and crochet them together to form the leg, then double the leg in the middle and pick up six loops on each side. You will then have twelve loops knit same as the leg. (This will form the top of sock.) Knit across three times, then at the end where you draw the hook through the loops, draw the hook through the first three loops, then through two, until you come to the last three loops, and draw them through all at a time. There will now be ten loops to pick up, then knit across twice, then in drawing the loops through the three first or three last loops until they are all narrowed off but eight stitches, then bind off or draw the needle through them all. (The top of sock now done.)

For the bottom of sock join a different color of zephyr at the back of leg with common crochet stitch, knit across the leg up the side of top of sock, across the toe, then down the other side in same stitch. Next time put the hook between the bars and knit six times around, turn the sock wrong side out and crochet the two edges together by putting the hook in each of the holes made by the bars, and draw the zephyr through to the side next to yourself and through the stitch on the hook without putting the zephyr over. Do so until you get to the last four holes, then put the hook first over one and under one until you have four on the hook, and draw through the four bars at once. Bind off last stitch.

The sock is now complete except to put a row of small scallops around the top of the leg. They will stay on better if a ribbon, or cord and tassel, is run in around the leg.

To brighten the inside of a coffee or teapot, fill with water, add a small piece of soap, and let it boil about forty-five minutes.

Recipes.

QUINCE PRESERVE.—Pare, core and quarter a peck of quinces, then weigh them; put the parings, cores and seeds into a preserving kettle, cover them with water, and boil slowly for twenty minutes; then strain them, put the water back in the kettle and put in the quinces a few at a time, and simmer gently until tender, say five or ten minutes; lay them on a dish; when all are done add the sugar and a little warm water. Let this boil for a few minutes until clear, then put in all the quinces and boil them without stirring until they become a clear garnet, which will be about one hour. Have ready two lemons sliced thin and seeds taken out; put them in a few minutes before taking from the fire.

AMBER PUDDING.—Mix together $\frac{1}{2}$ pound sugar and the same each of butter and bread crumbs. Add 3 eggs, well beaten, and 3 table-spoonfuls orange marmalade. Mix the butter and sugar together, then the eggs and bread crumbs, and lastly the marmalade. Put the whole in a mould, cover closely, and steam 2 hours.

TO KEEP EGGS FOR WINTER USE.—A good method of keeping eggs for winter use is to grease each egg with unsalted lard, or butter, and put them away, the small end downwards, in coarse salt or bran.

AUNT KITTIE'S SUET PUDDING.—One cup of molasses, one cup suet, one cup raisins, one cup of milk, two teaspoonfuls baking powder; add flour till very stiff to beat with spoon; put in a steaming-pan or floured bag, and steam constantly for three hours.

WHITE CAKE.—One cup of butter, three cups of sugar, beaten to a cream; four cups of flour and half cup of corn starch, added alternately, with a cup of sweet milk, two teaspoonfuls baking powder, flavor to taste; lastly, the whites of twelve eggs beaten to a stiff froth.

CORN BREAD.

Two cups of Indian, one cup wheat,
One cup sour milk, one cup sweet,
One good egg, that will you beat.
Half a cup molasses, too,
Half cup sugar add thereto,
With one spoon of butter new;
Salt and soda, each a spoon,
Mix up quickly and bake it soon,
Then you'll have corn bread complete,
Best of all corn bread you meet;
It will make your boy's eyes shine,
If he's like that boy of mine.
If you have a dozen boys
To increase your household joys,
Double then this rule I should,
And you'll have two corn cakes good.
When you've nothing nice for tea,
This the very thing will be;
All the men that I have seen
Say it is of all cakes queen—
Good enough for any king
That a husband home can bring;
Warming up the human stove,
Cheering up the hearts you love,
And only Tyndall can explain
The links between corn bread and brain.
Get a husband what he likes
And save a hundred household strikes.

CURRANT JELLY PIE.—One cup of currant jelly, rind and piece of one lemon, one cup of sugar, one spoonful of flour. Two crusts.

BEETS AND BUTTER SAUCE.—Take two Bermuda beets of medium size. Wash and dry them without breaking the skin. Boil them forty-five minutes in fast boiling water, slightly salted, which must entirely cover them. Then scrape off the skin, cut the beets into slices, and the slices into strips. Melt an ounce of butter, add to it a little salt, pepper and a teaspoonful of vinegar. Pour it over the beets and serve.

Flemish Lace and Lace-Makers.

Bruges is a quaint old city, full of curious remains of the past, with irregular streets of pointed-gabled houses, no two alike in color, size, or shape, everywhere intersected by canals, up and down which great barges move slowly along, drawn by men or boys, occasionally by a weather-beaten bare-footed woman; at every turn bridges meet the eye, and these resemble one another so much that it is most puzzling for strangers to find their way about. During the winter months a calm, sleepy repose settles down on the city, but with the spring it wakens into life; its long straight avenues of poplar and lime trees don their delicate green garments; the gardens become gay with flowering shrubs; water-lilies, white and yellow, tall bulrushes, meadow-sweet, and forget-me-nots deck the wide canals, and all looks bright to welcome the influx of visitors from all parts of the world, who come to explore the ancient city, to gaze on the old pictures which it treasures, and the many objects of artistic value and interest to be found in it. Many of these visitors were attracted by the exhibition of ancient and modern Flemish lace recently opened. It was specially designed to show the different kinds of lace formerly and now made in the Belgian cities, and to encourage the lace-makers by bringing their beautiful work before the public.

The laces of Flanders have always been held in very high estimation; indeed, that country claims to have invented the fabric. Many varieties are special products of the Belgian towns, and, though closely imitated elsewhere, are nowhere brought to such perfection. The thread used in making the fine Brussels "Point à l'aiguille" is only made from flax grown in Brabant. It is spun in dark rooms underground, where the air is moist, and one single ray of light is allowed to enter, and fall directly on the thread being spun. So fine is it as almost to escape the sight, the worker being guided by the feel of the thread as it passes through her fingers. The lace industry seems to have been at its glory in Belgium in the sixteenth and seventeenth centuries; and to Flanders, England owes much of her knowledge of lace-making, as the industry was introduced there from Belgium in the first instance; and English lace was manufactured in the eighteenth century rivalling in beauty that of Flanders. The principal laces now made in Belgium are Brussels Point, Valenciennes, Point Duchesse, and Torchon. Point Duchesse, called also "Point de Bruges," closely resembles Honiton, the style of pattern and ground being identical. The flowers are made on a perfectly round cushion separately, and are joined together afterwards by the same or another worker. The fine Brussels Point is too delicate a fabric for very useful wear, and from the great expense of making it, the fineness of the thread, the many hands through which it has to pass—each spray requiring several different workers to fill in the different stitches it

contains—it must always remain a costly fabric; except when ordered specially it is seldom made of any width, the cost being so great.

Valenciennes seems now more generally made than the other laces in the towns of Belgium, and each town has its own special variety, easily discovered by a worker, who from examining the ground can always name the town in which a piece of Valenciennes has been made. That of Ypres is held in the highest estimation; the ground is formed of clear distinct squares, upon which the close work of the spray or pattern is beautifully shown in relief. An immense number of bobbins are required in making this lace, the meshes acquiring their beauty and clearness from the number of times the bobbins are twisted. The Valenciennes made in Bruges and Ghent have a round-meshed ground, in which fewer twists are used, and are not so valuable as those of Ypres and

as it is gradually worked off the cushion, and the other for spare bobbins and pins. A small soft cushion is fastened at the top for pins, and a movable piece fits in, which can be used to lengthen the cushion as the worker may require.

The lace-workers complain sadly that their industry is falling in value, that little money can now be made at it; the markets are so flooded by imitation machine-made laces of great beauty, and the fashion as to the make of lace to be worn each season changes so continually, that people—except for very special occasions—prefer to purchase what is cheap and fashionable, rather than to spend large sums of money on costly fabrics which, in a few months, may be no longer in vogue.

Tomato Catsup—Tomato Sauce.

The basis of tomato catsup, or ketchup, is the pulp of ripe tomatoes. Many defer making catsup until late in the season, when the cold nights cause the fruit to ripen slowly, and it may be it is gathered hurriedly for fear of a frost. The late fruit does not yield so rich a pulp as that gathered in its prime. The fruit should have all green portions cut out, and be stewed gently until thoroughly cooked. The pulp is then to be separated from the skins, by rubbing through a wire sieve, so fine as to retain the seeds. The liquor thus obtained is to be evaporated to a thick pulp, over a slowfire, and should be stirred to prevent scorching. The degree of evaporation will depend upon how thick it is desired to have the catsup. We prefer to make it so that it will just pour freely from the bottle. We observe no regular rule in flavoring. Use sufficient salt. Season with cloves, allspice and mace, bruised and tied in a cloth, and boiled in the pulp; add a small quantity of powdered cayenne. Some add the spices, ground fine, directly to the pulp. A clove of garlic, bruised and tied in a cloth, to be boiled with the spices, imparts a delicious flavor. Some evaporate the pulp to a greater thick-



A FLEMISH LACE-MAKER.

Courtrai. The coarse but strong and useful lace called Torchon is much made in Bruges, also thick Guipure; and in some parts of the town, at every door one may see women and girls busy at their lace cushions, throwing the bobbins about with the most wonderful rapidity, and chanting in harsh, guttural voices, an anything but musical accompaniment to their labors. The pattern is pricked on a strip of green parchment or stiff material, and given to the worker, who finds her own thread, and, when finished, returns it to her employer. Not less than five aunes is bought by the shops, but lace can always be had from the workers direct at a very moderate price. Black Guipure and black Brussels lace are also made; the latter is very delicate and beautiful. The cushion and bobbins in use now are the same in form as those used in the seventeenth century. The cushion is nearly square, and has two drawers, one in which the piece of lace is put

ness than is needed, and then thin with vinegar or with wine. An excellent and useful tomato sauce may be made by preparing the pulp, but adding no spices, and putting it in small bottles while hot, corking securely and sealing. If desired, the sauce may be salted before bottling, but this is not essential. To add to soups, stews, sauces and made dishes, a sauce thus prepared is an excellent substitute for the fresh fruit. It should be put in small bottles, containing as much as will be wanted at once, as it will not keep long after opening.

Double-faced canton flannel in wine color and olive green is much used for lambrequins, table covers, curtains for archways and double doorways, and also for windows, but it is liable to fade when brought in such close contact with the sun and light. The trimming is usually a band of old gold, feather-stitched on, and the edge is finished with fringe or a hem.

Uncle Tom's Department.

MY DEAR NIECES AND NEPHEWS.—Another month has all too quickly passed away, and again we find ourselves surrounded by the gorgeous tints of autumn, which in the press of October work we are apt to leave unappreciated. There are great patches of potatoes to be picked, acres of turnips and carrots to be gathered in, and bushels of rosy-cheeked apples to be stored away or marketed. I hope, however, you will find time to have a day's nutting at least—besides the famous fun of the day, you can lay up a store of nuts for winter, and many pleasant memories for the years to come. When the happy Christmastide comes you can crack the nuts and with merry song and laugh add your share to Christmas cheer. Those of you whose privilege it is to go to school, I trust have resumed work in right good earnest, when spring's sleepiness and summer's heat are over. Do not, as hundreds of others have done, waste the hours of school. Are you not the hope of this fair Dominion of yours? The boys and girls of to-day you know are the men and women of twenty years hence. Statistics from all colleges prove that a great percentage of the most successful students have been boys trained in country homes, and in country schools, being innured from childhood to rugged habits of life. The other day we heard a young lady (?) whose papa evidently had more money than she had brains, make the following remark. "Oh! Dr.—is very nice, but his people are just farmers." Just farmers, forsooth! Don't you feel like resenting the insult? And yet we know that the opinion is one that obtains largely with a certain class of people. Just farmers indeed! Farmers and farmers' sons fill positions of trust to-day which that insipid young woman's brothers (if they are like her) would be proud to hold. But position, desirable as it may be because of the influence it gives, is not the true aim in life.

"To live well is to live nobly," and we can live well by doing those duties which fall to our hand at the present time.

True worth is in being, not seeming, In doing each day that goes by Some little good, not in the dreaming Of great things to do by and by.

UNCLE TOM.

Puzzles.

1—NUMERICAL.

If you want a color free, Find what words my 1, 2, 3.

Not subdued by fire fix, And you will have my 4, 5, 6.

A period of time now derive From my letters 2, 4, 5.

To espouse is a guarantee That we've agreed to 6, 2, 3.

A contest of might or power Is made known in 6, 5, 4.

To have courage, I tell you, Is pronounced in 3, 5, 4, 2.

To lift or raise is made known By setting in place 4, 2, 5, 1.

To draft anew, and not transfix, Is disclosed in my 1, 2, 3, 4, 5, 6.

For a Guardian with his gun, Find him in 6, 5, 4, 3, 2, 1.

And with me you will agree, To peruse is my 4, 2, 5, 3.

FAIR BROTHER.

2—STAR. Diagram.

- 1. A letter.
2. Concerning.
3. A subordinate in a school.
4. An image.
5. A loose garment.
6. A bird.
7. To repose.
8. A prefix.
9. A vowel.

FAIR BROTHER.

3—ILLUSTRATED REBUS.



4—CHARADE.

FIRST after FIRST departs; Who hath not lost a FIRST? There is no union here of hearts That finds not here an end. —Montgomery.

SPEED on the SECOND, but let her bear No merchandise of sin, No groaning cargo of despair Her roomy hold within. —Whittier.

TOTAL! peculiar boon of heaven, The noble mind's delight and pride, To men and angels only given, To all the lower world denied. —Johnson.

FAIR BROTHER.

5—HIDDEN ADJECTIVE.

I am composed of five letters, behold me and I am mountains and river in the old world. My whole is pertaining to the country. LOUISA F. REDMOND.

6—My first is a hero who gave his word And for Wallace and Scotland drew his sword; A useful metal my second is found, To obtain it men have to work underground; My third is what the mariner dreads, As upon his vessel's deck he treads; My whole is what we all must need When upon the back of a fiery steed. WM. WEBSTER.

7—DOUBLE CROSS-WORD ENIGMA.

In "Talent," beautiful and rare; In "Birds," that warble everywhere; In "Vanity," or idle show; In "Winters," with its dazzling snow; In "Herbs," the cure of many a pain; In "Hours," which lost we'll never gain; In "Fortune," oft a fickle friend; In "Songs," which joyfully ascend; In "Laughter," oft subdued, oft loud, Now bursting from you happy crowd; The scenes of two exhibitions show, They happened this summer you all may know. ADA ARMAND.

8—DROP VOWEL PUZZLE.

Th-w-rl-d-s-l-k-ng-gl-ss; fr-w-n-t-t-nd-t-w-ll-fr-w-n-t-y--; sm-le-t-t-nd-t-w-ll-g-v-y-u-sm-les-n-r-t-rn. ADA ARMAND.

9—TRANSPPOSITION.

O elw| orf hte hisermfan's oby, Hatt eh housat tiwh ish steris ta layp; O lew orf hte rolais aid, Htta eh ngiss ni ish oath no eth ayb. WM. BOYNTON.

10—BURIED TOWNS.

a—Yonder by the Avon stood Shakespeare's cottage. b—We cannot long remain here, for darkness will soon set in. c—Our visit we will still prolong, for dear papa is getting strong. E. MANNING.

11—SYNCOPATIONS.

To cut = a den. To levy = to erase. A play = food. Grandeur = to satisfy. The original = to putrefy. Region = to satisfy. Disposition = a class. To shout = to leap. A dwelling = stockings. Part of a ship = to entangle. Syncopated letters make: What each competitor in a contest wishes to be.

Answers to September Puzzles.

- 1—A fault confessed is half mended.
2—A clean house and smiling face will bring good luck to any place.
3—Carpet.
4—STAR
TARE
AREA
REAR
6—
A
DEN
VERSE
OPPOSER
CATALOGUE
ALLEGATIVE
TOTAL
ENVELOP
5—Ash, Cedar, Larch, Peach, Pine, Willow.
7—An idler is a watch that wants both hands; As useless if it goes as if it stands. N. B.—Read backwards a letter from each line alternately.
8—Of your gladness lend a gleam Into souls that shiver; Show them how dark sorrow's stream Blends with hope's bright river.
9—Example is better than precept.
10—"Rank is but the guinea-stamp; A man's the gowd for a' that."

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

Chas. E. Smith, Ada Armand, Drusilla A. Fairbrother, Emma Dennee, D. A. Moore, May G. Monk, Mary Morrison, Robert J. Rist, William Webster, Robert Wilson, E. Manning, Louisa F. Redmond, Alice Moran, George S. Smith, Thomas Moorehead, Minnie Cousins.

Sleeping Positions.

A medical paper has a new health-preserving racket,—that of sleeping with the face downward. These plans and specifications for sleeping are getting a little too numerous. We always try to live up to them. When some old medical authority, who has got his cemetery full and retired from active slaughter, shouts that a person should sleep with his head toward the north, so that the electric currents will pass through the body on the proper route, we sleep that way. If another moss-grown practitioner, with as good a record for fatality, solemnly asserts that the only authorized and fully guaranteed way to slumber is with the head toward the south, and gives the same reason as the other, we just move the pillow aft and turn in. When still another rival of the pale rider, with his back broken by lifting on the rate of mortality, announces that the only way to get along peacefully with the electric currents is to sleep with the head to the east or west, so that they will slide over the body and butt against the head-board of the bedstead, we promptly, even gladly, comply. Every time the word comes along the line for a change it finds us a ready and willing victim. They are coming rather too fast, however. It begins to look as if we could not get through a whole night without veering around to some new direction or position. It will soon be necessary to get up three or four times a night and go down and get the mail and see what the latest chart on sleeping is. Some genius will have to bring out a bedstead with clockwork attached that will keep it continually moving around, and make it occasionally get up on its hind casters and turn a couple of handsprings.

Dress for Little Girls.

Dr. J. H. Ripley says in Babyland: To get the full benefit of the summer vacation, little girls should not be dressed every day as though on a Sunday-school picnic or in training as embryo belles, but their wardrobe should be simple and comfortable, permitting the freest action of lungs and limbs. It is not enough that when they return they be "as brown as berries," but digestion should be improved, endurance increased and muscles hardened.

Farmer Joy's "Arrantin'."

The jolliest farmer was Ephraim Joy,
Gray-headed and bent, with the heart of a boy.
He whistled all day as he plowed or mowed;
He hailed each neighbor upon the road;
He petted his cattle and called every one
By some comical name—for the sake of the fun.
He sang at his milking, and pitching his hay:
He always was sunny whatever the day.

He carried his cream to the neighboring town;
Three days in the week he rode up and down.
Still singing or whistling or resting his team
After climbing the hills or crossing the stream.
Not a single house did he ever pass by
Without stopping his horses and waiting to cry:
"Well, neighbor, anything wanted my way?
I'm a-goin' a'arrantin' most of the day."

And all of the farmers who plodded along
With never a smile or a note of a song—
Who never found time to get out the "shay,"
And take wife and children off for a day.
Who thought it was queer in old Ephraim Joy
To be jolly and merry—so much like a boy.
Were all very glad, when he went up and down,
To have him do "arrants," if need be, in town.

He was postman, expressman and messenger, too,
No one caught him forgetting a thing he could do;
And you'd never have guessed he was sixty years
Old.

If you'd seen him "a-arrantin'," as he'd been told,
Though empty his milk cans, he'd always a load
When he started his horses again on the road.
His face was so bright and his manners so gay,
"The more arrants the better," it seemed he would
Say.

How often I've wondered, while thinking of him,
With my heart full of love, while my eyes have
Grown dim,
Of the help and the comfort which he always bore
To the sick and the sorry, the weak and the poor.
He did errands of mercy and love unseen,
As well as the "arrantin'" known to men;
And I know if such work is the angels' employ,
They have one helper added in Ephraim Joy.
—Caroline B. Lerow in Good Cheer.

An Intelligent Horse and Mule.

Our Methodist friend, the Rev. Mr. B., told us the other day of a preacher he knew who owned a horse that he had been driving for eighteen years. The preacher told our friend that he had so often driven the horse to church and left him standing near by that the horse had earned the Doxology, and whenever it is sung he begins to neigh, knowing that he is either going home soon or going to a neighbor's to dinner. This reminds us of one of our friends in Dooley county who owns a mule about 20 years old. The old mule knows when it is 12 o'clock by the sound of the dinner horn, and whenever he hears the horn, if it is a mile away, he begins to bray, and increases his speed with the plow until he reaches the end of the row, and then he stops and refuses to move until the harness is taken off.—[Hawkinsville (Ga) News.]

A Fashionable Mistake.

He had been to the city and went home brimful of news.

"You 'member the Smiths?" he asked his wife, "th' Silver Crik Smiths, them as got rich on the 'r gran' feyther's money."

Yes, she remembered them.

"I seen 'em. They're way up; live in a gran' house on a street they call 'thavenoo.' They ride in a double kerriage and have no end of money."

She said she s'posed as much.

"But, dumb sakes! 'Mandy, you wouldn't want ter change places with her. I see her a minnit an' I didn't hev the heart to speak t' her."

She said she'd like to know why; stuck up thing!

"No, she ain't, Nandy, not now. She's bin humbled rite down to the dust. She's as blind as a bat."

Blind! She guessed not.

"But she is. Fust, she didn't kno me—me that's rid down hill and played tag with her

when she warn't knee-high to a turkey. Then, Mandy, tho' her eyes were wide open, she went rite along the streets all dressed up in fine close, and a little mite of a dog was leading her along. He was tied to a streeng, and she had hold of tother end of the streeng. Now, Mandy, how'd you like to be her?"—[Detroit Free Press.]

Idleness.

Never be idle. Idleness means ruin just as stagnation means decay. You can catch better things than early worms by rising early in the morning—something that will color your cheek, quicken your pulse, brighten your eye, and give you such an appetite as will make breakfast a pleasure, dinner a treat, tea a delight and—no room for supper. Besides, it's only one early bird that catches the worm. Every early boy can catch the benefit I speak of. And what the boy learns to love the man will turn to deeper account, while his hay will be better and more abundant than an idler's; his corn, his carrots and his cucumbers will be finer, better and more abundant, too; and just when the idle man is thinking that he ought to have a fortune, the early one will be wrapping his up and running off to bank with it. The boy who says it's music to hear the milk-man and chimney-sweep from between the sheets will most likely take to his bed to escape his creditors by-and-by.

Indecision.

I love her! Words cannot express
The joy with which her presence fills me.
The soft touch of her hand, her dress
Against my arm with rapture thrills me.
I yearn to call her mine, but still
(Excuse me if my sorrows trouble you)
She says I am her dearest Will
And writes it with a lower-case w.

Fresh as a rosebud newly born
With morning's dew-drop still upon it;
Graces that ne'er did queen adorn,
Worthy of poet's noblest sonnet;
A heart as sunny as a bird's,
Ah, were I free my life to pledge her!
Were I but sure she'd find my words
Sweet as her heroes' of the "Ledger"!

I sang to her an old, old song,
(An excellent hint from Coleridge taking)—
The tale of one whose heart had long
With untold love been slowly breaking.
I ceased; but though upon her face
Love, pity, maiden shame were blended,
Instead of Genevieve's embrace
She only murmured, "That is splendid!"

Queen of home arts, she seems to cast
Sunshine and song 'round all who meet her.
No rare Madonna of the past
Was ever purer, gentler, sweeter.
A home with her—but no, I fear
It cannot be. How could I bear
To hear her play, year after year,
Her single piece—the "Maiden's Prayer"?
JACOB F. HENRIK.

Her Weakness.

About forty years ago, Abby C— was the leader of society in her native town, a small Southern city. She had many lovers, and women of every age admired and imitated her. There were many prettier girls in the town, many richer and more clever than she. But Abby among them was like a queen in her court. Her charm was her excessive gentleness, and the loving grace with which she yielded her opinions and wishes to her companion of the moment.

It is true that her companion of the next moment found her just as pliable and ready to take part with them. Friends, too, to whom she had been confiding and affectionate at school found themselves wholly forgotten when they met her after a year's absence. But her spell was just as potent and her love as demon-

strative after they had been together ten minutes.

Abby was not insincere. She felt and meant all the affection which she expressed at the time; but, vine-like, she rested on the nearest object, whatever it might be, and cared nothing for those who were out of reach. She engaged herself to one man, and afterwards encouraged two others to become deeply in love with her and to propose marriage, simply because she "could not bear to hurt them" by showing them that it was impossible she should marry them.

After she was married she was by turns a fashionable woman, caring only for dress and amusement, a noisy advocate of reform, and a slipshod novel reader, according as she fell under different influences. Her husband's wishes and tastes were remembered only when he was present. A foreigner of low rank and lower character almost persuaded her to elope with him. Her husband died and left her with two boys, who learned to drink, gamble and follow desolute courses unchecked. She "could not be harsh with them lest she might lose their love."

She died a few months ago, and despite all her charms of sweetness but few tears of regret fell on her grave. She left no place empty in the world. She had not brought help or hope to a single human soul, during her whole colorless life.

The character as well as the body needs backbone. Do not, girl-readers of the *Companion*, be deceived into believing that the feminine charm implies weakness of resolution.

The Deathless Mother Love.

At this time mothers all over the country have put the last lingering touch of grace into the folds of girlish garments. Folded with utmost care dainty gowns and saucy ribbon-decked aprons, sent already shining linen back to Ann for an extra polish, "Kate likes them so stiff and glossy," and away down in some unexpected nook has tucked a box of Kate's favorite bonbons, where she will find them and think, as she takes them from their hiding place, "that is just like mamma!" But there is something else hidden in the great trunk that Kate will not find, though it is hidden everywhere. In the soft pink dressing gown for Kate's study hours, in her room, in the dainty French slippers that perk up their slim heels near, in boxes of gloves and softest flannel, not a thread or ruffle but holds the sacred thoughts and tender wishes of that loving mother. Dear little maiden, send a thought sometimes to her.

Neat and pretty bureau or wash-stand covers are made of scrim or dotted muslin in scarf shape, trimmed with deep lace and lined with pink or blue silesia.

Very many are making pretty tidies, or chair-backs they are called now, of the pretty cretonnes so much used. Use three stripes, the centre one dark, the outer two light. Turn the edges, and crochet an edge of shells all around the stripe, making it pointed on the lower edge, and about three or four rows of shells around each stripe. Join together, finish the pointed ends with tassels, and baste silesia or muslin on the back of each stripe to make it firm.

Willing.

Physicians have proverbially hard times in getting the money due them for their professional services. Here was an instance of good intention:—

A Dutchman who had run up a large doctor's bill called to see the M. D. concerning it, whereupon the following conversation ensued:

"Goot-mornin', dogtor."
 "Good-morninn, Mr. Mozenthal. How is your family?"

"Pretty vell; I come to ask you somethings aboutt mein bill."

"Yes?" with animation.
 "I don'd haf got mooch money, I wants to know vill you tage id outt in der trade?"

"I guess we can arrange that," [cheerfully].
 "What's your business?"

"Vell—I blay me a leedle on that trombone; undt I serenadt you more as twendy times!"

Household Hints.

A bit of soap rubbed on the hinges of doors will prevent them from creaking.

If your pet canary has fits, put a drop of spirits of nitre into the water the bird drinks.

Pieces of cheese cloth make the very best kind of dusters. Cut them and hem them.

Stovepipes may be cleaned by putting a piece of zinc on the coals of a hot fire. The vapor produced carries off the soot by chemical decomposition.

Hash, to be good—and it can be good—must not stew and simmer and simmer and stew, but be heated through as quickly as possible and sent to the table at once.

When velvet gets plushed from pressure, hold the parts over a basin of hot water, with the lining of the dress next the water. The pile will soon rise and resume its former beauty.

Matches should never be left where rats or mice can get hold of them. There is nothing better to the taste of a rat than phosphorous. Those animals will eat it if they can get it. A box of matches is almost certain to be set on fire if a rat gets at it.

The rubber rings used to assist in keeping the air from fruit-cans sometimes becomes so dry and brittle as to be almost useless. They can be restored to a normal condition, usually, by letting them lie in water in which you have put a little ammonia. Mix in this proportion: One part ammonia and two parts water. Sometimes they do not need to lie in this more than five minutes, but frequently a half hour is needed to restore their elasticity.

Trying Lard.

When the leaf lard is taken from the hog, it should be placed in a clean-tub. If any pieces are bloody they ought to be placed in lukewarm water, letting them remain until thoroughly cleansed, then drain well and then use with the other lard. The leaf lard can be cut up in pieces an inch square. Have kettle on fire on stove with a little water, to which add the cut up lard, letting it heat gradually; stir with a wooden stick (hickory or maple) or a long handled iron spoon. The fat pieces of meat, which are also used for lard, are cut in the same manner, after taking off the skin, and added to the leaf lard in kettle. The skins should be laid by themselves to be tried out after the lard is

done. While the lard is trying, as soon as the water is all boiled out, which can be told by the clearness of the fat (when there is water, it has a slightly milky appearance) you can begin dipping off the clear lard and straining it into the vessels ready for its use (stone crocks are best). Do not take out the pieces of meat until well done. Be careful not to let it burn; it is very easily scorched; just at the last, when finished, the cracklings should be a light brown color. A good way to strain is to place a crash towel over a cullender, dip the lard into it; when sufficient is in it, two persons, one at each end, can twist the towel until all the lard is out. Put the cracklings in a vessel, dip out more lard; continue this way until all the lard is disposed of. Set the jar in a cool place and stir frequently with the wooden spoon, so as to insure the cooling of the sentre as soon as the outside; this prevents the lard from becoming frory in the middle; or set the lard in milk pans to cool. When cold, cut out, place in jars and pour over it melted lard almost cold until it is smooth on top. When ready to set away place a cloth (linen is the best) over it, with one or two inches of salt on top of the cloth; then cover the jar with thick cloth or paper, set in in a dark, dry place. The web always needs to be soaked in lukewarm water over night, then drained well, after which it can be cut up and tried with the other lard. It is used by the best housekeepers for clean lard. The skins can be cut into pieces two or three inches square, placed in a large dripping pan and set in the oven to try out, as they are apt to burn or stick to the kettle; stir them often, do not let them burn. They yield quite an amount of fat which is always useful in a family; then the skins themselves make good soap grease.—April Number of House-keeper.

Tombstone Epitaphs.

"Tell me, gray-headed old sexton," I said,
 "Where in this field are the wicked folks laid?
 I have wandered the quiet old churchyard through,
 And pondered on epitaphs old and new;
 But on monument, obelisk, pillar or stone,
 I read of no evil that men have done."

The sexton stood by a grave newly made,
 With his chin on his hand and his hand on the
 spade;
 And I knew by the gleam of his eloquent eye
 That his heart was instructing his lips to reply.

"Who is to judge when the soul takes flight,
 Who is to judge 'twixt the wrong and the right?
 Which of us mortals shall dare to say
 That our neighbor was wicked who died to-day?"

"The longer we live and the farther we speed,
 The better we learn that humanity's need
 Is charity's spirit, that prompts us to find
 Rather virtue than vice in the hearts of our kind."

"Therefore, good deeds we inscribe on these
 stones;
 The evil men do let it lie with their bones;
 I have labored as sexton for many a year,
 But I never have buried a bad man here."

PARLOR SCRAP-BASKETS.—A very pretty and novel idea is to take a bright-colored Japanese umbrella, open it half way, and set it in a very low little socket or tripod; any carpenter will make one, and stain it to imitate ebony. One each side of the fireplace is both pretty and useful.

Take peppermint or spearmint leaves; wash them and put them into a large-mouthed bottle; fill the bottle up with vinegar and cork it closely. Let this stand for three weeks, then pour it through a muslin cloth into a clean bottle, and it is ready for use.

He was Competent to Speak.

Bagley—My dear, I think I will take to the lecture field. There is a heap of money to be made in the business.

Mrs. B. (scornfully)—Indeed! What line will you take?

"I haven't determined. Something about animals would take—birds, for instance."

"Birds, by all means, Mr. Bagley. Night-hawks, for instance, or owls—anything, Mr. Bagley, that turns night into day as you do."

—[Philadelphia Call.

Answers to Correspondence.

TIMID ONE.—1. As you become older, and as you mix more with strangers, you will become less nervous. 2. Washington died in the last hour of the last day of the last week of the last year of the last century—that is, he died on Saturday night, twelve o'clock, December 31, 1799.

W. O. L.—We advise you not to use rouge or anything of the sort, as persons are not deceived by such artifices; and those who descend to them are laughed at for their vanity, or censured for their endeavors to attract attention; besides which it makes the skin coarse, and if at any time the practice is left off, the person looks prematurely old.

SUSIE W.—1. No? When walking with a friend and you happen to meet an acquaintance, you need not feel it incumbent upon you to introduce them. 2. You can change the color of flowers, so it is said, by pouring a small quantity of hartshorn (aqua ammonia), into a dish, then place a funnel over it, large end down, and into the small end of the funnel insert the cut flower or flowers you wish to change.

ENQUIRER.—Don Quixote is the hero of a celebrated Spanish romance of the same name, by Cervantes. Don Quixote is represented as a "gaunt country gentleman of La Mancha, full of genuine Castilian honor and enthusiasm, gentle and dignified in his character, trusted by his friends and loved by his dependants," but "so completely crazed by long reading the most famous books of chivalry that he believes them to be true, and feels himself to be called on to be the impossible knight-errant they describe, and actually goes forth into the world to defend the oppressed and avenge the injured like the heroes of his romances." He completes his chivalrous equipment by taking with him an esquire of his neighborhood, a middle-aged peasant, ignorant and credulous to an excess, but of great good-nature. These two sally forth from their native village in search of adventures, of which the excited imagination of the knight, turning windmills into giants, solitary inns into castles, and galley-slaves into oppressed gentlemen, finds abundance wherever he goes. The knight and esquire suffer a series of ridiculous discomfitures, and are at last brought home like madmen to their village. Cervantes finally restores Don Quixote to his right mind, through a severe illness, and makes him renounce all his follies of knight-errantry, and die like a peaceful Christian on his own bed.

WATERMELON CAKE.—One cup of white sugar, one-half cup of butter, one-half cup of sweet milk, whites of four eggs, one half teaspoonful soda, one of cream of tartar, two scant cups of flour, one fourth cup of sour milk, two-thirds cup of pink sugar, one-fourth cup of butter, one-half teaspoon of soda, white of two eggs, one tea cup of raisins, flour enough to make rather stiff.

Commercial.

THE FARMER'S ADVOCATE OFFICE,
London, Ont., Oct 1, 1886.

September has been all that could have been desired by the farmers. Fine warm rains and plenty of heat. This has brought on the fall wheat very fast, and has made the pasture very fine. In fact we shall not be at all surprised to see nearly as large a make of cheese in October as we had in August. The acreage of wheat sown this fall appears to be quite up to that of last year, if not larger.

WHEAT.

The situation and the movement of wheat in the States has been a great surprise to many, and has nonplussed many in the trade.

The weather has been variable in the States the past ten days, but in general has been favorable for seeding throughout the month of September, and reports are that an increased area of winter wheat has been sown.

The exports of wheat from Atlantic ports the past week were not quite up to the preceding week, and the exports of flour fell over 100,000 barrels, but the total, including flour reduced to wheat, was over 1,000,000 bushels in excess of the corresponding week last year. The visible supply of wheat in this country increased last week over 2,000,000 bushels. Since July 31st the visible supply has increased about 15,000,000 bushels, notwithstanding the liberal exports which have been made, and this naturally proves depressive to our home markets, and holds in check the improving tendency in foreign markets which has been inspired by the short crops in Europe.

The Chicago market for wheat has been subject to frequent and wide fluctuations, with lower prices prevailing, but the closing rates are above the lowest point; although 1½c. below a week ago for both October and November. Compared with a year ago prices are 11 cents per bushel lower, and yet some people are not happy because it refuses to go lower.

In corn there has been a moderate increase in the visible supply, and there seems to be less confidence in the effect of the short crop in view of the liberal supplies of old corn which continue to come forward in the West in the face of declining markets. Receipts are large, while the shipping demand continues light and almost wholly confined to the lower grades. The weakness in wheat helps along the depression in the yellow cereal, as does also the fine weather, which has insured the crop and placed it beyond all danger of frost.

MONTREAL GRAIN AND FLOUR.

Receipts of grain for the week were 344,602 bushels, against 212,269 last week, and 331,709 for the same week last year. The total receipts from May 1 to date were 10,110,358 bushels, against 7,382,491 during the same time last year. The stock has decreased 126,000 bushels during the week, and is now 277,000 bushels less than a year ago. The stock of wheat is only 86,000 bushels, against 408,000 a year ago. The market to-day was quiet and generally easy in tone, but without definite change. The steamship Lake Huron to Liverpool took out 43,500 bushels. We quote:—Canada red winter wheat, 80c@81c; white winter, 79c@80c; Canada spring, 79c@80c; peas, 66c@67c per 66 lbs.; oats, 28c@30c per 32 lbs.; rye, 59c@60c;

barley, 55c@60c; corn, 55c@56c duty paid, and 47c in bond.

Oats and peas are a fine crop, and while the yield may not be as heavy as some seasons, the sample will be very fine.

LIVE STOCK.

The Montreal Gazette reports the British markets as follows:—

The much desired improvement in the British cattle trade has failed to be realized, in fact a material set back has occurred which has knocked values down to the lowest of the season, even though the receipts from Canada and the United States have continued light. The offerings of other cattle, however, have been large, excessive, in fact, which resulted in decided weakness in the market to-day. At Stanley to-day there were liberal offerings and a very weak demand, which compelled salesmen to submit to a reduction of about ½c. per lb., which brings prime Canadian steers down to 11c. The accounts from other markets are no better. Our cable advices quote prime Canadian steers 11c., fair to choice 10½c., poor to medium 9½c., and inferior and bulls 7c@8½c. Inferior qualities have a miserably slow trade and are practically unsaleable, except at whatever price buyers choose to give. In contrast to the cattle market, sheep have made a very decided improvement and have advanced materially. At Liverpool to-day there was a comparatively good trade, and although offerings were fair the market was 1c. higher. Best sheep were cabled at 14c., secondary qualities at 12c@13c, merinos at 11½c@12½c, and inferior and rams at 9c@10½c. The foregoing quotations are calculated at 480 in the c. The meat markets were cabled without much change. Liverpool quotes 5½d. for hindquarters, and 2½d. for forequarters per lb., and London 3s. 6d. for hindquarters, and 2s. for forequarters per 8 lbs. by the carcase. The following table shows the prices of prime Canadian steers in Liverpool on the dates mentioned:—

	1886.	1885.	1884.
	per lb.	per lb.	per lb.
	cents.	cents.	cents.
September 27.....	11	12½	15
September 20.....	11½	12	15
September 13.....	11½	13	15
September 6.....	11½	14	15½
August 30.....	11½	14	15½
August 23.....	11½	13½	15½
August 16.....	12	13	15
August 9.....	12	13½	15
August 2.....	12½	13	15
July 26.....	12	12½	15
July 19.....	12½	14	15
July 12.....	12	14½	15
June 5.....	13	14	15
May 10.....	11½	15	15

APPLES.

Late cable advices report the Liverpool market steady, and quote sales of Baldwins at 11s. to 13s. per barrel for round parcels. A late private letter dated London, Eng., Sept. 21, 1886, says:—"Canadian and American apples will be wanted this season, because our own and the continental crops are a long way below the average."

CLOVER SEED.

This crop in some sections promises much better than for some years previous. American red clover is quoted in London, Eng., at 42s. to 44s., and German red at 56s., French seed at 50s. We look for a good export trade at moderate rates for both red and alsike.

CHEESE.

Has ruled very firm, and has advanced steadily all through the season. On the whole the trade must be satisfactory to both the buyer and seller.

The stock in Liverpool is cabled at 79,500 boxes, which is the smallest quantity carried at this date since 1880, when it was 57,500. The stock in New York is given at 44,398 boxes

against 62,815 a year ago, but the statement is considered ridiculous, as many who ought to know estimate the stock at not less than 75,000. Twelve cents has been offered for September cheese. These prices we think are dangerous, and sellers may repent if they do not accept these offers.

BUTTER.

The mail just in announces a considerable advance in Cork butter, which amounts to 6s@7s., firsts being quoted at 102s., seconds 87s., thirds 76s., fourths 64s., and superfine mild cured firkins 110s. The improvement has extended to American butter, which has been in better request at an advance of 4s@5s, creamery in Liverpool being quoted up to 94s. In this market the position is about as before, with the improved tone well maintained and exporters looking for finest lots, for which full figures will be paid. The New York market has further advanced, good to fancy creamery being quoted at 26c@31c.

	c.	c.
Creamery, choice.....	20½	@21½
" good.....	19½	@20
" lower grades.....	18	@19
Townships, finest.....	17	@17½
" fair to good.....	14	@16½
Morrisburg, finest.....	16	@16½
" fair to good.....	13	@15
Brockville, finest.....	15½	@16
" fair to good.....	13	@15
Western, finest.....	10	@14
" fair to good.....	12	@13
Low grades.....	10	@11

Live Stock Market.

BUFFALO, Sept. 28, 1886.

CATTLE.

Receipts 10,839, against 12,332 the previous week. The supply of cattle on Monday consisted of 217 car loads. The market opened up steady at about the same range of prices as those ruling the Monday previous. The quality of the offerings ranged from common to choice, there being no extra cattle on sale. The best sold at \$4 50@5; good \$4 40@50; fair to good butchers' steers, \$3 50@4; mixed butchers' stock, \$2 75@3 75 for common to good, and stockers at \$2 75@3 25. The offerings were light on Tuesday but enough to meet the demand. Only three loads were received Wednesday. These were common quality and were not wanted. The following were the closing

QUOTATIONS:

Extra Beeves—Graded steers weighing 1,300 to 1,450 lbs.....	\$5 00	@5 25
Choice Beeves—Fine, fat, well-formed steers, weighing 1,300 to 1,400 lbs.....	4 75	@4 90
Good Beeves—Well-fattened steers weighing 1,200 to 1,350 lbs.....	4 45	@4 50
Medium Grades—Steers in fine flesh, weighing 1,100 to 1,300 lbs.....	4 25	@4 40
Light Butchers'—Steers averaging 850 to 1,100 lbs. of fair to good quality.....	3 50	@4 00
Butchers' Stock—Inferior to common steers and heifers, for city slaughter, weighing 900 to 1,000 lbs.....	2 75	@3 50
Michigan stock cattle, common to choice.....	2 75	@3 25
Michigan feeders, fair to choice.....	3 50	@3 75
Fat bulls, fair to extra.....	2 25	@3 00

SHEEP.

Receipts 38,400, against 33,400 the previous week. The sheep market opened up on Monday with 70 car loads on sale. The demand for sheep was good, at strong closing prices of Saturday, and about all the receipts were closed out. There were 13 loads on sale Tuesday. The market ruled steady and closed firm. On Wednesday there were 27 loads on sale. The demand was active and prices advanced 10@15 cents per hundred, closing with fair to good sheep selling at \$3 50@4, and good to choice at \$4 15@4 50, with some sales of selected feeders at \$4 50@4 75. Western lambs were firm at \$4 25@5.

HOGS.

Receipts 50,310, against 54,458 the previous week. There were 68 loads of hogs on sale Monday. The demand for all grades was active at an advance of 10@15 cents per hundred over the rates of Saturday. The receipts were light on Tuesday, and prices were again 5@10 cents higher, and another 5 cents was added on Wednesday. Pigs and light Yorkers sold at \$4 5 @4 90; selected Yorkers, \$5 10@5 15; selected medium weights \$5 15@5 25, mostly at \$5 20; coarse mixed heavy ends, \$3 75@4; stags, \$3 50.

Toronto Produce Market.
PRICES AT FARMERS' WAGONS.
Toronto, Oct. 6, 1886.

Wheat, fall, per bushel.	\$0 74	0 76
Wheat, spring, do.	0 74	0 76
Wheat, goose, do.	0 66	0 67
Barley, do.	0 45	0 63
Oats, do.	0 32	0 34
Peas, do.	0 56	0 58
Rye, do.	0 00	0 00
Dressed hogs, per 100 lbs.	6 20	6 50
Chickens, per pair.	0 45	0 65
Butter, pound rolls.	0 21	0 24
Eggs, fresh, per dozen.	0 18	0 20
Potatoes, per bag.	0 65	0 70
Apples, per barrel.	1 25	2 00
Onions, green, per dozen.	1 15	0 20
Carrots.	0 20	0 00
Turnips, yellow.	0 35	0 40
Turnips, white.	0 20	0 30
Cauliflowers.	0 50	1 00
Cucumbers.	0 20	0 30
Cabbage.	0 30	0 40
Beets.	0 20	0 40
Radish.	0 20	0 00
Hay, per ton.	9 00	15 50
Straw.	8 00	12 50
Tomatoes.	0 60	0 75

Our readers are aware that we drew attention to the Potato Beetle before its depredations were known to the farmers, and the Government then appointed an entomologist to investigate and report about them. We also gave the first information on which the Government acted to check anthrax that was ruining farmers in Nova Scotia. We also gave the first information on which the Government acted to stamp out the hog cholera and foot and mouth disease then existing in western Ontario. We also gave the first information on which the Government acted in regard to an existing case of tuberculosis that existed at Point Edward quarantine. We also gave information about sheep rot or tape worm that was sweeping away the sheep.

The dairyman who buys or grows a big cow, giving a little mess of milk, for the sake of having a heavy weight as a basis for beef at the end of her usefulness as a dairy animal, is like a manufacturer who buys a big steam engine for doing a little work, for the sake of having a heavy weight of old iron to sell when the engine is done with. The waste of food for keeping up the excessive weight of the big cow, and keeping her warm, and the waste fuel and steam in keeping hot the needless iron in the big engine, are quite analogous, and there is a striking similarity between the old iron in the worn-out engine and the beef in a worn-out cow. Unless a big cow is an extra milker she is less profitable than a smaller one that is a fair milker.—[National Stockman.

In a series of experiments Prof. Henry, of the Wisconsin Experiment Station, found during the month of August the extremes of water in several churnings of butter to be 14 per cent. and 15.92 per cent., a range of not quite two per cent. As the weather grew colder in September the water contained seems to have grown somewhat less. In sixteen analyses of sixteen churnings, by different persons in different churns, the lowest per cent. of water in the butter was 14.07, and the highest 15.74, all but two being over 14 and under 15 per cent.

We solicit correspondence from our farmers and breeders on the Herd Book questions, which receive special prominence in this issue of the ADVOCATE. Both farmers and stockmen are deeply affected by the course that will be taken. The question cannot be satisfactorily settled without agitation.

Notices.

We would direct the attention of our readers to the advertisement of Mr. M. MacCormick, Principal of the Guelph Business College, a gentleman in whom we have much confidence, and one we believe eminently qualified to fill the position he at present occupies.

The Exhibition of the Township of Moore (Co. Lambton) Agricultural Society will be held on Oct. 12. Silas Mills, Logierait P. O., Secretary.

THE CANADA BUSINESS COLLEGE, HAMILTON, ONT.—This popular institution has had an attendance of over 250 students during the past year. It is one of the oldest and most successful schools of its kind in this country. The beautiful catalogue of the college may be had by applying to Mr. R. E. Gallagher, Principal.

Mr. F. W. Stone, Guelph, Ont., reports the following sales of Cotswold sheep:—To Messrs. Sotham & Co., Pontiac, Mich., 80 head, viz. 9 rams and ram lambs, 61 ewes and 10 ewe lambs; to Mr. Hill, Morrisville, Vt., 1 Cotswold ram; to F. Bonnycastle, Campbellford, Ont., 1 ram.

We cordially recommend the Hamilton Business College to the notice of our subscribers. Conducted as it is by two chartered accountants, we do not see how it can fail to satisfy its patrons; and if its past record is allowed to speak for itself, then we consider it a highly successful institution.

"Pulverize the land, whatever you do: Go on the principle of the woman making 'gooseberry pie—who sweetened it all she dared and then shut her eyes and put in a handful more. Work your land until it is fine enough and then go over it again. If you do not think this will pay, try it on a strip through the field, and then contrast it with the balance." See advertisement of the "ACME" Pulverizing Harrow, Clod Crusher and Leveler, on page 319.

The attention of Carriage Builders and users is directed to the advertisement in another column, of the Adjustable Sand-Box and Improved Concord Axle. These Axles are far superior to any hitherto placed on the market, and are so acknowledged by all practical carriage builders who have given them a trial. The increasing demand for them proves their superiority over all others. Anyone addressing A. F. MILES, Stanstead, Que., will receive a cut showing the adaptability of the Sand-Box, and the preference for the Axle.

A FORTUNE OF \$150,000,000.—Chicago, Sept. 15.—About fifty heirs of the Mosher estate had a meeting here to-day to decide who shall go to England to ascertain the amount of property left for the heirs in America, about 560 in number, and the true condition of the will. The estate, it is claimed, amounts to over £32,000,000. The British American Claim Agency, Stewart Building, New York, are prepared to make searches, collect claims, furnish copies of wills, and all necessary information at trifling cost. Their authentic book register, containing the family names of over 50,000 heirs that have been advertised for, sent post paid for 50 cents. See advertisement headed "Enormous Fortunes," in our advertising columns.

Mr. Henry Arkell, Farnham Farm, Arkell, Ont., reports the following sales:—Twenty Cotswold rams to Geo. Harding, Waukesha, Wis., U. S.; Uriah Privett, Greensburg, Ind., U. S., fourteen Cotswolds, six rams and eight ewes. These were all fitted for show purposes. This is the sixth year Mr. Privett has bought his show Cotswolds from Mr. Arkell. One Cotswold ram lamb to James Bolton, Eramosa, Ont.; one Oxforddown imported ram and ewe to William Young, Waubuno, Ont.; ram to Smith Evans, Gourcock, Ont.; ram to Adam Armstrong, Speedside, Ont.; ram to the Parry Sound Ranch Co., Parry Sound, Ont.; ram to S. S. DeArmon, Franklin, Penn., U. S.; ram and ewe to Thomas Temple, Fredericton, New Brunswick; two ewes and two ewe lambs to Anthony Sanson, Jarvis, Ont.; ram lamb to James Tabb, Saltford, Ont.; ram lamb to F. W. Woods, Sarnia, Ont.; one ram lamb to E. Shants, Petersburg; ram lamb to Robert Heslop, Ailsa Craig, Ont.; also three imported ewes to G. H. Fugsley, Lockport, New York.

NEW ADVERTISEMENTS.

ADVERTISING RATES.

The regular rate for ordinary advertisements is 25c. per line, nonpariel, or \$3 per inch. No advertisement inserted for less than \$1. Special contracts for definite time and space made on application.

Advertisements unaccompanied by specific instructions inserted until ordered out, and charged at regular rates.

The FARMER'S ADVOCATE is the unrivalled advertising medium to reach the farmers of Canada, exceeding in circulation the combined issues of all the other agricultural publications in the Dominion. Send for an advertising circular and an estimate.

SPECIAL NOTICE.

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

FARM FOR SALE.

EXCELLENT STOCK AND GRAIN FARM FOR SALE.—Lot 16, first concession of Aldborough, county of Elgin; 200 acres, 140 tillage, balance pasture and two large sugar bushes containing 1,000 trees, 80 acres of inexhaustible river flats, remainder undulating gravel sand and clay loam; none broken or waste, naturally and artificially well drained. The river Thames is about thirty rods north, and separates it from the incorporated Village of Wardsville, in which are five churches, foundry, high and public schools, flour and saw mills, etc. Newbury, on the G. T. R., 3 1/2 miles distant; good gravel roads there and to Glencoe and Bothwell, which are good local markets. Rodney and Bismarck, on Canada Southern Railway, 8 1/2 miles southeast. Scenery and prospect the best in that section of the country. There are several springs of the purest water; very healthy place and neighborhood. Two good young orchards; highest state of fertility. The growing crop: 50 acres in fall wheat, also 15 acres of corn in shock, and 40 acres of hay; can be arranged for and immediate possession given. There are two good frame dwelling houses with necessary outbuildings, barns, sheds, stable, driving house, etc. For further particulars apply to JOHN MCLEAN, Esq., Barrister, St. Thomas, or to C. A. O'MALLEY, on the premises. 250-a

R. McDougall & Co., Galt

We are the sole manufacturers of the

SCIENTIFIC WIND MILLS



For pumping water for Railroads, Villages, Suburban Houses, Dairies, Lawns, Brick Yards, Draining, Irrigating, etc., as well as Geared Wind Mills of all sizes, for running Grinders, Shellers, Saws, etc. Our Mills have been constructed to fill a want long felt by farmers for a reliable mill, and one not likely to be blown to pieces or to get out of repair. We have spared no expense in getting the best mill in the market. Send for bona fide testimonials from well known prominent Canadian farmers and stock raisers who are using our mills. We will be pleased to quote prices and give any information required to intending purchasers.

Remember, the Best is the Cheapest.

R. McDougall & Co
GALT, ONT. 250-y

OHIO Improved CHESTER HOGS

Not subject to cholera. 788 sold in 1885. Largest shipment of any breed by any firm in the world. Two weighed 330 lbs. Send for description of this famous breed. Also for the L. E. Silver Co., Cleveland, O., U.S.A.

If the above breed are not liable to cholera the import-
space cannot be overestimated and should be investigated.

Good Words.

Times are hard, but would seem harder without the ADVOCATE.—M. J. ARMAND, Pakenham, Ont.

Inclosed please find \$2. I consider the FARMER'S ADVOCATE the best paper out.—JOHN FLEMING, Bay View, P.E.I.

I consider the FARMER'S ADVOCATE one of the best papers of the kind in existence.—ROBERT BICKERDIKE, Montreal, Que.

I would not be without your paper on any account, as I consider it a most valuable acquisition to any man's library.—REGINALD GEORGE ROGERS, Headingly, Man.

I have much pleasure in expressing myself highly pleased with the FARMER'S ADVOCATE, it being brim full of useful information.—J. HACE SMITH, Beausjour, Man.

I cannot praise your journal too highly for the independent stand it has taken. I am convinced it is the best friend to Canadian farmers. F. STEWART JAPP, Courtright, Ont.

Inclosed please find \$1 for your very useful paper, the FARMER'S ADVOCATE, one issue of which is often worth all the money, in my experience.—ROBT. READ, Ottawa, Ont.

I beg to inclose \$1 for the renewal of my subscription to the FARMER'S ADVOCATE. It is a paper I always look forward to, and ought to be in the home of every farmer who means business.—C. SWALE, Winton, Ont.

I am very pleased with your paper; it gives a great many useful hints and reminds one of a great deal that we are apt to forget, and still enlightening us on things that are so important to our success in life.—H. HUGHES, Guelph, Ont.

Inclosed please find the annual dollar for the FARMER'S ADVOCATE. It is money well earned by you and well expended by us. Long may you live to give us the FARMER'S ADVOCATE, is the wish of E. T. WRIGHT, Middleton, P.E.I.

Inclosed find \$1, being my subscription for another year. I have taken the ADVOCATE for many years and like it very much; would not like to do without it. I think it is the best agricultural paper I know of.—HENRY JACKSON, Cass City, Mich.

Inclosed please find my subscription for another year. I must say I am highly pleased with the FARMER'S ADVOCATE. I would give it my hearty support, and will do my best to forward as many new subscribers during the year as possible.—JOHN S. CAMPBELL, Morris, Man.

Inclosed please find \$1 for your valuable paper, which I have received all right. I am well pleased with the FARMER'S ADVOCATE. I saw the numbers together each year, when volume is completed, for future reference. I wish you all success.—DUNCAN CAMERON, River Dennis, N.S.

Inclosed please find \$1, being payment for the FARMER'S ADVOCATE. I have taken the paper for about fifteen years, and would not do without it, for it contains so much useful information for the farmer. Will try and send you some more names for it.—C. W. HUFFMAN, Guelph, Ont.

Inclosed please find \$1 for the coming year. I have taken the ADVOCATE nearly twenty years, and I certainly have less inclination to give it up than ever. I like the ADVOCATE for the bold way it criticises things; it conscientiously knows to be wrong.—WM. TOMLINSON, Marsh Hill.

I am an old subscriber to the ADVOCATE, and the more I see of it the better I like it. It is a pity such a friend of the farmer should ever wear out. I thank you for your efforts in our behalf, and hope that you may be long spared to fill the chair you fit so well.—R. S. JAMESON, Melbourne, Que.

The writer, who is Secretary of the Wisconsin Dairymen's Association, wishes to acknowledge receipt of your FARMER'S ADVOCATE regularly for some time, and begs to say that in his opinion it is one of the best papers that he reads.—A. S. CORNISH, CURTIS & GREENE, Fort Atkinson, Wis., U.S.

Please find inclosed \$1, being my subscription for the current year. I must say that I appreciate your independent course of action. I believe you have the interest of the farmer at heart. Your paper is not only interesting but highly instructive, and should be in the hands of every farmer and gardener.—WM. NEUSSEN, Cayuga.

Having received one dollar's worth out of your valuable paper, I consider it to be just the paper for a farmer. You will find inclosed \$2 for renewing our papers for another year. We will remain your subscribers for the ADVOCATE as long as we find it useful in our homes. Please send it as usual to Wm. RUPP and MOSES BYDT, New Hamburg, Ont.

Please find inclosed the sum of \$3 for my subscription and George McBain's for another year. We like the ADVOCATE very much for its honest and plain dealing. Another journal we take would fain make us believe that we could not live in this country without imported farm stock of all kinds. What an absurdity. We say success to the ADVOCATE.—E. F. SUTTON, Ida, Ont.

Send in your Orders early.



STANDARD CHOPPING MILLS

Using best French Burr Stones.

SIZES MADE:

12 inch } All
20 inch } Iron
30 inch } Cases. } CAPACITY,
36 inch } Wood } 8 to 40
42 inch } Frames. } Bushels per hour.
Requiring 2 to 20 Horsepower.

IMPROVED ELEVATOR ATTACHMENT

Grain is emptied from bags into hopper on the right elevator to mill hopper ground, discharged into second elevator, elevated and bagged, bag being hung from spout

SAVES TIME! SAVES MANUAL LABOR!
By its use, one man can readily attend to mill. EVERY STOCK RAISER, EVERY THRESHER, EVERY SAWMILLER, should have one. No trouble to keep in order. Stones will last a lifetime.

EASTERN OFFICES: 154 St. James-St., Montreal; 24 St. Paul-St., Quebec.

WATEROUS ENGINE WORKS CO., BRANTFORD & WINNIPEG.

GRAPE VINES

Headquarters and lowest rates for EMPIRE STATE & NIAGARA T. S. HUBBARD New York.

COGENT REASONS WHY



Adopted by the Government of the Dominion of Canada as the STANDARD WAGON, should command your preference:

The intrinsic cost and value of it is at least \$10 more than any other wagon made in Canada, and any unprejudiced practical man will tell you so, and the thousands who now have them in use say so, because it is not only made from the best, carefully selected and thoroughly seasoned timber and best of iron, but the skeins used, made only by us, are superior to any skeins made or used in Canada, and are constructed specially to receive our Climax Truss Rod, which doubles the strength of the axle; the boxing of the hubs are pressed, not wedged in; a guarantee for a year accompanies each wagon, and notwithstanding this additional cost and superiority, the Chatham Wagon can be purchased at no greater price than is charged for inferior wagons. Bear in mind it is the running gear that carries the load, and no amount of fancy painting on the box will make an easy running and great carrier of a poorly constructed wagon.

Liberal Terms to Parties buying in Carload Lots. Correspondence solicited

CHATHAM MFG. CO. (Limited).

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ESTABLISHED 1860. SUBJECTS: Commercial Branches, Phonography, Type Writing, Telegraphy, Elocution and Art. STAFF: W. N. Verex, S. C. Edgar, W. J. Elliott, Thos. Egan, Miss Kirkpatrick and the Principal Only Business College within fifty miles of London that took a prize at the Western Fair. Students arriving daily. A. J. CADMAN, Principal, Box 400, London, Ont.

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(Late of the firm of Rudd & Tennent.) Calls from a distance by telegraph and otherwise promptly attended to. Communications concerning Horses or Cattle answered free of charge. OFFICE—King street, opposite the market. RESIDENCE—Cor. King and Wellington streets.

ENORMOUS FORTUNES AWAITING CLAIMANTS

Lie buried in the courts of Chancery, Bank of England, England, France, Germany and other countries, amounting to over \$480,000,000, a great part of which belong to the people of America, including all classes of the community. The Chancery Paymaster will gladly pay the money to the rightful owners if they will only put in their claims. Thousands of people in the United States are unconscious of the fact that a fortune has descended to them from remote ancestors, and because they have no knowledge of these ancestors they take no interest in what is of vital importance to them. We earnestly urge every one to send to the British-American Claim Agency, Stewart Building, New York City, and obtain their authenticated Book Register (price 50 cents, stamps or postal note), containing a list of 50,000 people to whom this vast wealth belongs, and if they find their names or those of their ancestors, they should follow the instructions it contains. A fortune may await them. The following are a few of the surnames (among the 50,000) of persons entitled to money and property:

- Abbot Blair Cowan Ernst Harris Kavanagh Middleton Prince Tempest
Abbott Blake Cowell Erratt Harrison Kay Miller Prior Terry
Abrahams Bond Cowley Erskine Hartwell Kaye Mills Pritchard Thomas
Ackerman Booth Cowper Esmond Hart Keane Morgan Prosser Thompson
Aston Boyd Cox Etherington Harvey Knight Myers Purkis Thomson
Adams Bradley Craig Evans Harwood Knight Purkis Thomson
Adamson Brewer Crawford Evelyn Haslam Kearnes Nash Quade Thornton
Addington Briggs Creed Evered Hassell Kentes Naughton Thorp
Ainsworth Bristow Crompton Everett Hastings Kenting Naylor Quambro'h Thorpe
Aitkin Brown Crook Eyre Hawkins Keefe Neal Quares Tindall
Alcock Browne Crouch Facer Hay Keegan Neale Quayle Tod
Aldershaw Bryan Cummings Fagan Hayes Keeler Neary Queen Trowbridge
Aldridge Burns Cummings Fagan Hayes Keeling Neave Quick Todd
Alexander Byrne Cunningham Fairbairn Haylock Knowles Nisbit Quin Tomlinson
Allan Cuppage Fairclough Hayman Keen Norris Quinn Tooth
Allen Cain Cupps Fairwentr Haywood Keenan Nee Quinton Toussaint
Ambrose Cairns Curran Falconer Haywood Keene Needham Quirk Townley
Anderson Callaghan Currie Falkner Hearn Keith Nell Quisted Turner
Andrew Callan Curry Finch Heather Keller Neilson Radcliffe Ulrich
Andrews Callow Curtis Finlayson Heath Kelley Nelson Ramsay Umfraville
Angell Calvert Dale Finney Hemming Kellogg Nelson Ramsden Umphelby
Angus Cameron Dale Farley Henderson Knox Nesbitt Randell Underdown
Anson Campbell Daley Farmer Henley Kelly North Rankin Underhill
Ansoncombe Cane Dalton Farquhar Henry Kelso North Rankin Underhill
Ansell Canning Daly Farr Herbert Kemp Newberry Ransom Underwood
Anson Cannon Daniel Farrell Herring Kendall Newburgh Ratcliffe Unwin
Anthony Carey Daniels Farrer Hewitt Kendrick Newcombe Rawlinson Uproft
Antram Carleton Davenport Farrington Hewlett Kennedy Newell Rose Upton
Applebee Carleton Davidson Farrow Hewson Kent Newland Rutherford Upton
Appleyby Carmichael Davies Firth Hibbert Kirk Newman Rayner Urquhart
Appleton Carpenter Davison Fisher Hickey Hicks Lacy Nolan Read Usher
Archer Carr Day Fitch Hicks Lacy Nolan Read Usher
Armstrong Carrington Day Faulkner Higgins Lamb Norton Reade Valder
Arnold De Havill'd De Havill'd Fawcett Hill Lambert Nicholas Reid Valentine
Asby Carruthers Delany Pay Hillyard Lane Nicholls Rees Vand'r N'vr
Austin Carter Dempster Fearn Hind Langley Nichols Reeves Vance
Austin Cary Denham Fearon Hinton Langman Nicholson Reeves Varley
Backhouse Cartwright Denison Fell Hitchcock Hoare Lawrie Nicolson Ross Vaughan
Bacon Casey Denman Fellows Hoare Lawrie Nicolson Ryan Vaux
Badeley Castle Dennis Fellon Hodges Lawrence Nightingale Reid Vernon
Badger Callan Devereux Fitzgerald Holmes Norman Reilly Vickers
Bailey Cerreda Devine Fitzpatrick Hoffman Lawton Nugent Reilly Vickers
Baillie Chadwick Dew Fleming Hoey Laxton Owens Reynolds Vincent
Bainbridge Chalmers Dexter Fenn Hogan Layton O'Brien Rhodes Wandell
Baines Chamberlain Dick Pennell Holden Lenke O'Connell Rice Waite
Baird Chamber Dickenson Penton Holland Lenthal O'Connor Richards Walkcott
Baker Chayne Dickins Fenwick Holloway Leclero O'Donnell Richardson Walker
Baldwin Chambers Dickinson Ferguson Holmes Ledger Lowe Wall
Balfour Champion Dickson Field Holt Lee Oliver Waller
Ball Chandler Digby Fielder Hone Lees Orr Riley Waller
Ballard Chapman Dillon Fielding Honeyman Legg Owen Ritchie Wallis
Balls Charles Dix Fletcher Hood Leggett O'Dwyer Robbins Walsh
Bainbridge Charlton Dixon Flint Hooper Leigh O'Gorman Roberts Walter
Baines Chatterton Dobson Flinn Hope Leighton O'Grady Robertson Winter
Baird Chester Dodder Gale Hopkins Leonard Oldfield Robinson Woodward
Baker Child Dodds Gale Hopper Leonard Oldfield Robinson Woodward
Baldwin Christian Dodge Gallagher Horton Le Pennell Rogers Walton
Bale Christie Dodgson Galloway Horwood Leslie Osborn Russel Ward
Balfour Church Dodsworth Galway Houghton Lewis Owens Russell Waring
Ball Churchill Doherty Gamble How Lindsay O'Keefe Sadler Waters
Ballard Clapham Dolan Gardiner Howard Litchfield Little Littlefield Scott Seabury
Balls Clarendon Donaldson Gordon Hume McLennan Payne Scott Seabury
Bainbridge Clark Donnelly Garland Hubert Long O'Neill Sanderson Watts
Bainbridge Clarke Donohoe Garner Hucks Laing Oldham Sanderson Watts
Barrister Clarkson Donovan Garrett Hudson Lome Orme Sandford Webb
Bankses Clay Dooley Geary Huggins Lovell Osborne Sandys Webster
Banks Clayton Dore Genet Hughes Lucas Overton Saunders Wright
Bannister Clayton Dougherty Hulme Hume McCann O'Helly Savage Weir
Barber Cleary Douglas Gerard Humphrey McCarthy Oakley O'Hellyvan Small Welch
Barbour Clement Downes Gibbs Humphr'y's Macdonald Oakes Squire West
Barclay Clements Doyle Gibb Humphries McDonald Oliphant Sawyer Westlake
Barford Clerke Drinkwater Gibson Hunt McDowell Ormsby Sawyer Westlake
Barford Clifford Drummond Gilbert Hunter McGregor Oswald Scanlan Whentley
Barker Clifton Duncan Gilchrist Hunter Hurst Maxwell Oxley Scarth Wheeler
Barlow Clinton Dutton Gilding Hurst May Maxwell Oxley Schelling Whildon
Barnold Clough Dutton Gill Ians Maynard Page Schmit Whittaker
Barnes Cloves Eales Gillespie Ibberson Mayne Palmer Schmidt Wolf
Barnett Clutterb'k East Gillett Ibbotson Mitchell Parker Schotte Worth
Barns Coalpepper Easton Gilmore Idle Morrison Parry Smith White
Baron Coates Eaton Gladwin Ikin McIntosh Parsons Soames Whitehead
Barratt Cobb Eden Gleeson Illingworth Little MacKenzie Paterson Stephenson Whitfield
Barratt Coburn Edger Glyn Imerson Joyce MacKenzie Paterson Scott Yeates
Barron Cock Edmonds Glynn Impleton McWilliams Peacock Seaman Wilkins
Barrow Cockburn Edwards Goddard Imroy Mahon Pearce Selby Wilkins
Barry Coleman Egan Godfrey Ince Mahony Pearsons Sewell Williams
Barstow Coles Egerton Goodwin Ingersoll Mayo Pemberton Seymour Williamson
Barr (new) Collett Elder Goodyear Ives Mead Penny Shaft Willis
Bartholo Collyer Eldridge Gordon Gore Jackson Mealing Percy Sharp Wilson
Barlett Collier Elbot Gore Jackson Mealey Perkins Sharp Wood
Barton Colwell Elliott Gorman James Mobbs Perry Sparks Wyatt
Basset Colville Ellis Gobling Jameson Murphy Peters Sparrow Yardley
Batchelor Compton Ellison Goss Jamison Manning Phelps Stewart Yarrow
Bateman Connell Elmes Gould Jay March Phillips Shaw Yarwood
Batson Connolly Kipli'st'ne Grubb Jefferies Martin Pierce Sheldon Yate
Baxter Connor Elston Gwynne Jefferys Marshall Pike Shepherd Yates
Bayley Conway Elton Hancock Joyce Jenkins Marshall Pilkington Sheppard Yeates
Baylis Cook Emery Hale Jennings Mason Murray Porter Shippore Yeoman
Bean Cope English Hall Johnson Mellor Pitt Short Yeomans
Beard Cooper Elwin Halliday Johnston Meredith Pollard Simpson York
Beaumont Cope Ely Halloran Johnstone Metcalfe Pollock Skinner Young
Bell Copeland Emmerson Hamilton Jones Meyer Poole Spencer Y'gh'sband
Bennett Cop'tw'te Engels Hammond Jordan Moore Pope Spooner Yerrill
Benson Corbett Ennis Hancock Joyce Jenkins Marshall Porter Sullivan Zaitell
Berresford Cornell Ennos Hand Jamison Massey Potter Talbot Zetelli
Berry Cornish Eno Handley Judd Mather Potts Talbot Zimmern'm
Biggs Costello Enright Hanley Jaques Mathew Powell Tanner Zitman
Birch Cotton Epps Harding Jepson Mathews Power Tate Zouch
Bird Coulson Epworth Harman Jarratt Matson Pratt Taylor Zouch
Bishop Cousins Erasmus Harrington Matthews Preston Taylor Zoyga
Black Coventry Eryl Harper Kane Michael Price Townsend Zilwood

EXTRACT FROM THE LONDON TIMES.

"Very few people have any conception of the enormous sums of money which pass through the hands of the PAYMASTER, received in CHANCERY and remain under his control through the decease of the parties immediately interested and the ABSENCE of their NEXT OF KIN. The publication of these LISTS is the first step yet taken towards facilitating the DISCOVERY and RECOVERY of these FUNDS. The latest official returns show that there was \$265,800,747 in February, 1883, to \$77,005,769."—The London Times, July 4, 1884.

As it is impossible to publish all of the names of persons entitled to money and property in this paper, we earnestly urge ALL, whether THEIR NAMES APPEAR here or not, to send for Book-Register (price 50 cents), containing 50,000 names and instructions how to proceed.

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STEWART BUILDING,
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Our readers desiring to procure choice Clydesdale stallions or high-bred Shorthorns, should attend Mr. Gillson's sale. See advt. in this issue.

We have received from Mr. E. J. Maxwell, Montreal, Secretary and Treasurer of the Montreal Horticultural Society, a copy of their eleventh annual report, including the report of the Fruit Growers' Association of the Province of Quebec.

Prof. Arnold, in a private letter to us, makes the following reference to the English farmers: "I had a first rate time in England. I found the English farmers a capital set of men, industrious, intelligent, skillful, friendly and extremely hospitable. I enjoyed my intercourse with them ever so much."

An English dairyman gives the following remedy for warts on the hands of milkers: Night and morning apply a saturated solution of salt in the best brown pickling vinegar. Let the owner of the hand take a pint bottle nearly filled with best brown pickling vinegar; drop in a little table salt, shake, and add more; continue this till the vinegar will not take up more. The application may be at any convenient time—twice or thrice daily.

If there were no scattering grain, and if the fields in wheat were not plowed and sown with wheat again, says a correspondent of the Philadelphia Press, it would be an easy matter to exterminate the Hessian fly. All that would be necessary would be to delay sowing until frost, when the fly ceases to lay her eggs. But in the meantime scattering grain from the harvest has come up, and on this the fly finds a home for her progeny until another crop is hatched out in the spring. If wheat succeeds wheat the scattering grain must be plowed or cultivated under as soon as it appears. Wheat stubble should always be rotted, not for the value of the rottings, but that it may not sprout and make a home for the Hessian fly.

Quite a number of amusing scenes are usually witnessed at the fairs, of which the following is a case in point:—Two young men enter the honey hall. One of them is heard to say, "Oh, here is the honey and bees; my father used to keep bees; I know all about bees. Oh, isn't that fine honey? Hello! what have they got this churn in among the honey goods for?" That's not a churn." And the young men turned to see who the speaker was, and were greeted by the smiling countenance of a beekeeper, who expended considerable time with them trying to explain the difference between a honey extractor and a churn, but they were no worse off than one of the judges at a show at Guelph, where one of the judges did not know the difference between a wax and a honey extractor.

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Extract from a Special Report which appeared in "Bell's Weekly Messenger."

"The use of Sulphate of Copper was dispensed with, but in its stead the seed was dressed with CARBOLIC ACID (Calvert's No. 5), with the double view of keeping both insects and rooks away from the crops, and, may be, preventing blights by its antiseptic action—both these objects were attained; freedom from blight has been most remarkable, and though the season was unusually wet, our straw is the best we have grown—the yield of grain proves to be a little over our average.

"For each sack of wheat we used 4 oz. of Calvert's No. 5 Carbolic, well mixed with one gallon of water, in a watering pot, so that the fluid can be evenly distributed over the heap of corn, which is then turned over and over with a broad shovel till intimately mixed; this is done over night and the seed is ready in the morning, but it does not seem to suffer by two or three days' delay. (Graduated measures to show 4 ounces exactly can be had from any chemist.)

"We find the Acid (Calvert's No. 5) to be the most effective and cheapest preventative of the mischief for which it is employed of any that have been used—it does not prevent germination, nor, when rightly done, cause injury of any kind. If people buy the stuff too often sold to farmers as Carbolic Dressing, disappointment must follow. We have before us a bottle containing what seems to be ammoniacal gas liquor, floating above a black mass of gas tar—this contains about 5 per cent. of Carbolic Acid, but the ammoniacal liquor and the tar, which is not mixable with water, cauterises the seed and covers it with a stiff black paste that renders germination next to impossible.

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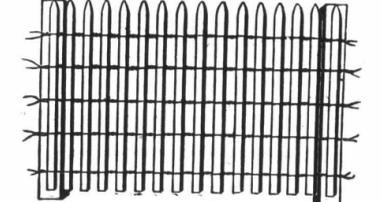
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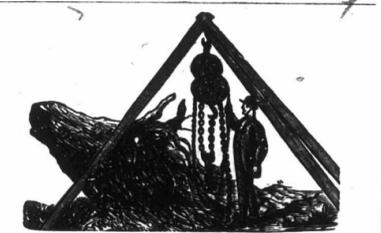
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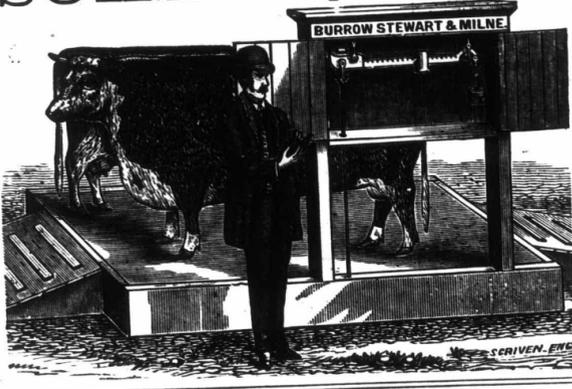
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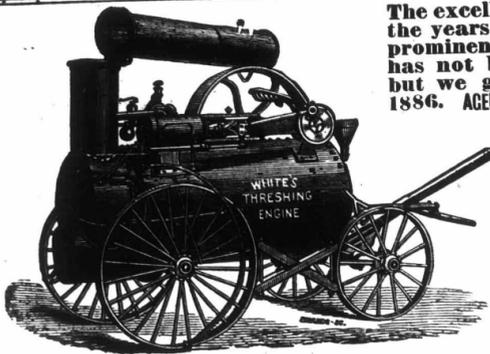
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