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FARMER'S ADVOCATE

AND HOME MAGAZINE

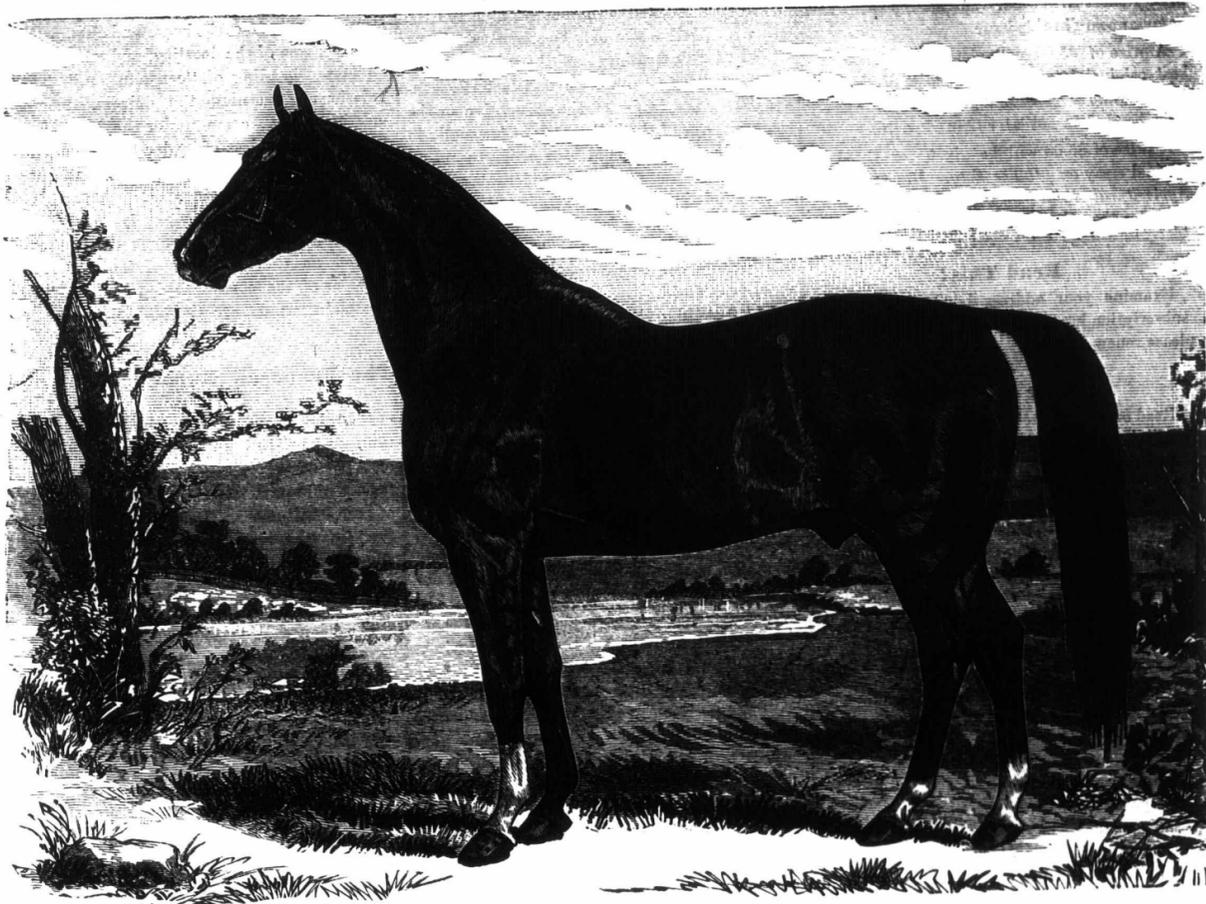
FOUNDED, 1866.

VOL. XIX.

LONDON, ONT., NOVEMBER, 1884.

Whole No. 227.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.



The Famous Old English Thoroughbred Horse, "Voltigeur."—See pages 333 and 334.

Our Improvements.

Our readers cannot fail to appreciate the changes which will be observed in this issue of the ADVOCATE. We have added to our stock of machinery a "Gem" paper cutter, and the edges of all our numbers will hereafter be neatly trimmed. Our first page will contain a handsome illustration of some object that will be of interest and benefit to our farmers, and elegant and useful illustrations will also be found in other columns. Our aim is to make

the ADVOCATE a model of elegance as well as usefulness.

Now many barnyards are knee deep with mud, slush, and manure with the juice squeezed out. In such cases the cattle prefer half perishing on a green pasture to coming home in the evenings to be sheltered and fed. If the stables are warm, the surroundings kept dry and clean, and the cattle kept comfortable up to the time of the arrival of snow and frost, they will be half wintered before Christmas.

It is the practice of most farmers to depend on the rich June grass to create a large flow of milk to make up for all the dairy losses during the other seasons. If this is their theory it works badly in practice; for after the niggardly rations usually given in winter, it requires all the June grass they can get to restore them to milking condition, and when this state is attained, on comes the July and August drought to blast all their hopes and projects.

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

TERMS:—\$1.00 per year, in advance, postpaid; \$1.25 in arrears. Single copies, 10 cents each, postage prepaid; sample copies free. Subscriptions may commence with any month. Remittances at the risk of the subscriber unless made by registered letter or money order. Subscribers who desire to change their P. O. address must send both old and new address. Remember that the law requires the subscriber to notify the publisher whenever the former wants the paper stopped, and all arrearages must be paid. The date on the address label shows when the subscription expires.

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

Our Monthly Prize Essay.

Our prize of \$5.00 for the best original essay on "Women as Farmers" has been awarded to Mrs. Robert Warwick, Wingham, Ont. The essay appears in this issue.

A prize of \$5.00 will also be given for the best original essay on "The best Methods of Encouraging Tree-Planting on Farms." Essay to be handed in not later than Nov. 15.

A prize of \$5.00 will be given for the best original essay on "The Future Management of Agricultural Exhibitions." Essays to be in not later than the 10th December.

Read This!

Examine your address label, and if your subscription has expired, or is about to expire, please renew at once.

Choice Premiums.

Read our list of choice, new premiums offered in another column of this issue for sending in new subscribers.

1885.

The remaining numbers of the FARMER'S ADVOCATE for the present year will be sent free to those new subscribers for 1885 who send in their names now.

We want live, energetic agents in every county to canvas for subscribers to our paper. We pay a liberal commission to agents who devote their time to our work. Send for specimen copies.

Keep down barn-yard odor.
Are your implements under cover?
An impostor—The straw-stack king.
Autumn is the germ of the harvest time.
A well summered animal is half wintered.
Change from pasture to stall feeding very gradually.
Icelanders numbering 580 have settled in Manitoba.
Cattle feeding now belongs to the higher mathematics.
Purslane only abounds on a rich soil. It is good food for hogs when fed green.
The farmer is the only business man who persistently conducts certain branches of his business at a loss.
Some dairymen in the United States are beginning to save fodder by giving their cows artificially warmed water.

Editorial.

How to Organize Farmers' Clubs.

The idea of an organization or a club is usually associated in the farmer's mind with a crowd of people. The sooner they disabuse themselves of this impression the sooner will they become a powerfully organized body, equipped to procure their rights and defend themselves against the ever-increasing assaults of their interests.

Every fireside gathering of two or three neighbors on a winter's evening is a farmers' club, and the only thing required is for the members to know it. Every return of a friendly visit constitutes a separate meeting. The only difference between this sort of a club and the largest one in the land is in degree, the former one being the first step and the latter the last. The only ground for complaint is the hesitancy between the first step and the second. If there are only two farmers present at one of such meetings, and the subject in dispute or debate cannot be satisfactorily concluded by the leader of the affirmative or the negative, one of the ladies present is usually in the chair. If it should now occur to one of the members present that a considerable amount of talk and time is being wasted on account of a lack of system, the foundation of a great and successful club is complete. This little pivot has become the fulcrum of the lever which moves the world.

The first thing that suggests itself in economizing time is to convert talking into speaking. Instead of both leaders talking at once or presenting one argument at a time, let the leader of the affirmative present all his points first, and in order to prevent clashing, let him stand upon his feet, indicating the length of time he requires to point out his side of the case. This is speaking—the parent of action. The speaker who feels frustrated at the conclusion of the argument will naturally ask for time to consider the next question, and a subject for debate for the next meeting will accordingly be decided upon. Before a week expires these changes will get abroad through the whole neighborhood. Curiosity will draw one neighbor to attend the next meeting; another will be drawn by the interest which he feels in the subject to be debated. There are now four members in the club. If one member now relates what transpired at the previous meeting he is the secretary, and if another suggests that each speech shall not exceed ten minutes, or that each speaker shall not speak more than three times, he is the president of the club. After a few weeks the secretary will likely suggest that he can't carry all the proceedings in his head, and somebody will then propose that each member subscribe a penny to get some paper and pencils, and if the secretary offers to account to the other members for the way he spends their money, he is also treasurer of the society. It will soon be found that a good deal of time is wasted in discussing routine details. If two or three members, on their way home from the meetings, discuss suggestions which would be promptly accepted by club, they would form a committee of management. The second stage of organization is now complete.

By and by it will be found that the fireside accommodation of the farmer's house is too limited, and the school house should now be utilized. It will be found that the questions of the most practical and vital importance have all been discussed, and new light will be required; other farmers' experience should now be compared with their own, and finally the combined experience of mankind systematically arranged. The latter is called science—or, in common parlance, "book-farming." The farmer who concludes that his experience may be of use to other farmers casts his vote in favor of science. The question now to be decided is, Where is the necessary information to be obtained?

It is an error to suppose that the constitution and by-laws of other organizations should be copied. This has often proved the ruination of many a club; for the natural aims and rules of no two societies can scarcely ever be exactly alike. Let the name and objects of the club be drawn from the bent and circumstances of the people of the locality, and written down under the heading of "constitution." The regulations governing the officers, members, meetings, etc., come under the head of "by-laws." The rules of order being naturally identical in all organizations, small and great, can with propriety be copied.

The aim of organizations is to help their members, and where burdens exist, they are shifted on the shoulders of the unorganized portions of the community. The interests of the plain farmers are therefore in the greatest jeopardy.

The Proposed Bureau of Agriculture.

It being announced that the Dominion Government have determined to establish a Bureau of Agriculture, it becomes the duty of every farmer to inquire into the origin and tendencies of such institutions. It is to embrace two distinct features, viz., (1) an experiment station, and (2) a bureau of statistics. It is to be a counterpart of similarly named institutions in other countries.

The science of agriculture may be said to have had its origin half a century ago, and since that time various experiment stations have been established, until they now number 140 on the continent of Europe alone. The earliest stations were founded by societies of practical farmers, and their usefulness soon became so great that the governments undertook to foster them, but it is to the individual energy of the great experimenters of Germany and France that we are indebted for the agricultural science of continental Europe.

In England we find a different aspect of affairs. About the same time English agriculture was in a most deplorable condition, and every change was regarded as a benefaction by the tillers of the soil. Relief soon came, not by any sympathy or support from the government, but by the means and enterprise of Sir J. B. Lawes, aided by Dr. Gilbert, who established an experiment station at Rothamsted. There are now three stations in England, all free from government influence, and it is conceded that the universal worth and fame of the Rothamsted experiments are chiefly due to their freedom from government control. England is now the foremost country in the world in her

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appreciation of agricultural education, and having gathered her lessons from both hemispheres, her best authorities are averse to state aids even in the diffusion of technical education amongst her agricultural classes. She has established successful dairy schools without government interference, and the thirst for knowledge has become so great that these institutions are self-supporting.

When we turn our eyes to our own continent we see different influences and different conditions. In a new country on a virgin soil, where the inhabitants are limited and the acres almost illimitable, where the highest possibilities of agriculture may be brought forth by muscular force, and where the evils of a worn-out soil may be compromised by a change of location, there is little natural incentive to improved methods of cultivation. However, the first experiment station proper in the United States was also founded through the efforts of a body of intelligent farmers whose honest purpose was the amelioration of their agricultural condition. One station after another was established and the cries for state aid sounded louder and shriller. There is but one station in the Union, the Houghton Farm, which was established by private enterprise, and hence free from political influence. None of those subsidized or controlled by the governments of the respective States in which they are situated, have established a name in scientific agriculture; they are but mockeries of the stations which they seek to imitate. The professors are mostly competent men, but they are hampered in their work by the exigencies of party. The experiments to be conducted are dependent upon popular sentiment, and there is no harmony or division of labor existing amongst the stations. The practical good they have accomplished is mostly confined to the analysis of commercial fertilizers sent them for the purpose of detecting fraudulent vendors. They have not the confidence of the farming community. Many of the bulletins and reports which they distribute deceive the farmers; for in their haste and anxiety to show what good they are doing, the experiments are frequently acted upon before they are thoroughly and repeatedly tested. There are, however, a few exceptions to these reprehensions, notably Dr. Sturtevant, director of the New York experiment station, who is not only a practical farmer but a born experimenter and scientist—a man who makes office subordinate to truth, and many of his experiments and investigations have a place in agricultural science, but this is due to the extraordinary personal qualities of the man, which overcome the weaknesses of the government system.

On the other hand, the Houghton Farm is free to act with promptitude, without having first to study political expediency, and in this way it has frequent opportunities of accomplishing good when the opportunity of doing so by the other stations is past. Its experiments are accurate and practical, and its undivided attention is fixed upon such experiments as will be of scientific worth, and hence also of value to the practical farmer.

Before consenting to an enterprise involving such an enormous expenditure of money, we should endeavor to ascertain if we are less trammelled by party intriguers than other gov-

ernments. Are our public men better imitators than partizans in other countries? What is lacking in the enterprise spirit of our people as individuals? Are the burdens of taxation upon the shoulders of our farmers not yet sufficiently oppressive? Is our army of office-holders and office-seekers not yet sufficiently great and dazzling?

If our Provincial station and those of the neighboring States were doing a useful work, their example would soon enough be followed by our Maritime and other Provinces. In the introduction and culture of new varieties of seeds and trees our seedsmen and fruit growers are doing all that is possible to be done, and many are conducting experiment stations of their own. This is just the state of affairs that should exist. It is from the farmers and fruit growers that agricultural editors procure the most reliable and valuable information, and their facilities and eagerness for its dissemination are far greater than those of government officials. The same truths hold good with regard to the other departments to be undertaken by the proposed bureau. The Government further propose to appoint their employes as reporters for the press. The competition in the agricultural press is already so keen that the editors are under the necessity of publishing only such information as they know to be reliable and seasonable, and any attempt to disseminate blue-book literature would be a bold step towards the servility of the press. If the Government insist upon this clause, they will have to pass an act compelling the press to accept their reports, which would have the tendency to degrade not only journalism, but also every other private enterprise in the Dominion. When an editor publishes the report of an experiment, he upholds the efficiency and integrity of the experimenter, and the ways of governments are too dark and mysterious to justify this action.

With regard to the stamping out of contagious diseases, the Government deserve great credit for what they have already done in this direction. They have forbidden diseased American cattle from crossing into our borders, and so long as they strictly enforce their regulations, we need not fear infection. The morbid attempts of the American Government to stamp diseases out of their country have disgusted many calm-headed stockmen, and the propriety of raising funds by private subscription for the purpose of securing more prompt and vigorous action is being energetically discussed. Very few of our veterinarians are pining for office.

In the matter of commercial fertilizers our farmers require to be taught how to conserve the manure they have, instead of creating employment for adulterators and speculators of the vilest kind. American experience has taught us this valuable lesson. Besides, our experiment stations have elicited nothing of value that has not already been investigated by Liebig, Lawes, and a few others, and with regard to their application one station is of no use for the whole Dominion; every locality must make tests for itself, as is done with the different varieties of seeds.

Perhaps the greatest shams that have been perpetrated by governments is their action in

reference to live stock matters. They have been the followers, not the leaders, of enterprise. They have seized and nursed the booms from the lap of private speculators. When a craze breaks out respecting the merits of a certain breed, they must put their testing machines in operation. They must gorge for records or for the purpose of bringing their fattened animals up to the standard of those speculators who gamble in prizes and pedigrees, and many of the feeding experiments have neither practical nor scientific worth.

In the statistical department of the proposed bureau, still greater caution should be exercised. Bureau statistics did not originate for the benefit of the farmer. They are guides for politicians and speculators. The ruling prices inform him how much farm products are stored up in the granaries of the world; whatever is lacking in this particular is supplied through the natural channels. It is true that the favorites of the members of parliament can be reached by means of bureaus without the aid of the press, but this fact rather disfavours their usefulness to the farming community as a whole. If our farmers want to convert Ottawa, like Washington, into a dumping ground for all the rubbish of partizans and broken-down speculators, by all means let them favor the establishment of the proposed bureau. Other institutions of science and art have flourished by enthusiasts in their profession; so can agriculture.

How to Save the Manure.

No. III.

By "heap" we do not mean the indiscriminate scattering of the manure all over the barn yard; fermentation cannot take place by so doing, for the mass is built up so slowly and the surface exposed is so great that the nitrogenous substances which cause the ferment are usually washed away before chemical action can take place.

The size of the heap depends partly upon the quantity of stock and partly upon the quantity of manure required for spring use. First, consider that, on an average, six months are required to produce a sufficient amount of fermentation, the time being somewhat more if the process is slow, and somewhat less if the heap is allowed to ferment actively. A separate heap should be built every four or six weeks; the width may be six or seven feet, the height about the same, and the length will, of course, depend upon the quantity of manure that can be made during the time mentioned. In order to make sure that fermentation will start, it would be a wise precaution to put some dry manure, earth, or other good absorbent under the heap to catch any liquids that may attempt to escape. If active fermentation is required, it will be well to tramp the heap as lightly as possible for reasons before stated.

Now comes the perplexing question as to the regulation of moisture. It is plain that if more bedding is used than will absorb all the urine, the heap will be too dry, especially if it is loosely thrown together, and the result will be fire-fang and mildew, which is very injurious to the manure. On the other hand, if the heap becomes saturated with rain, the air will be excluded, and consequently no fermentation can take place. During the severe months, when

nothing but frost and snow is expected, no covering will be required, but the first heap, which should be chiefly completed in November when drenching rains frequently prevail, can be easily topped off when a shower is expected, so as to prevent excessive moisture from entering, in which case no covering will be required. In any system of manure saving, no water should be permitted to flow from the roofs of buildings into the yard, so that if some of the rain is collected in tanks, provision is made against a deficiency of moisture in the heaps during seasons of drouth, and a too quick fermentation may be easily checked at any time by the application of a few buckets of water.

When the temperature of the heap reaches 80° Fahr., carbonate of ammonia, a very volatile gas, is formed, and care must be taken to prevent its escape in appreciable quantities, for ammonia is the most valuable part of the manure. The heat first sets up in the bottom, gradually cooling towards the top and sides, so that no gas can escape until the top or sides reach this temperature. No thermometer is required, for a very small quantity of gas produces a pungent smell by which its escape can readily be detected. In winter the melting of the snow on the heaps will indicate that a loss of gas is going on. Sometimes the snow will be found in patches, in which case it is evident that the heat is not evenly distributed, and it is then a good plan to put a few forkfulls of fresh manure on the bare spots, tramping it compactly. If the heap is sufficiently moist and the temperature not too high, fermentation ceases with the formation of organic acids and gypsum, which, aided by other absorbents, take up the ammonium carbonate, saline matters being formed, which are not volatile. The temperature mentioned, however, will not destroy all the weed-seeds, and under circumstances requiring their complete eradication, the temperature must be raised from ten to thirty degrees higher, and kept in this state for five or six days. In this case it is evident that large quantities of the gas will escape unless an abundant supply of absorbents is present. In countries where manure saving is reduced to a science, the heaps are interstratified and topped off with dry muck for the purpose of fixing the ammonia and increasing the value of the manure; but our farmers will consider this an extravagant procedure until they come to our remarks on the process of saving manure by the use of absorbents without fermentation.

All this may be considered laborious work before it is attempted; but when it is considered that, in addition to the saving of \$19 on every cow, or her equivalent, during the winter months, an immense saving of labor in the reduced bulk and weight of the manure is made. It has been estimated by practical experiments that three loads of fresh will be reduced to one of fermented manure, and that three tons of fresh is reduced to two of rotted manure. From this let each farmer count for himself the quantity of labor saved during the busy spring in hauling, spreading and tilling alone, neglecting the increased availability, the beneficial effect on the mechanical condition of the soil, and the interest saved on the capital invested consequent on the conversion of the manure into plant food two or three years sooner than under the prevailing system of saving, or rather wasting, farm yard manure.

(TO BE CONTINUED.)

Our Northwest, Present and Future.

The importance of Manitoba and the Northwest as a factor in our commercial relations can scarcely be over-estimated. Wheat growing appears to be the characteristic of new countries, but this industry in these regions must not be compared with that of the early days in other portions of the Dominion. The agriculture of to-day is not the agriculture of then. The vast prairie stretching between the Saskatchewan and the base of the Rockies, tempered by the mild Chinook breezes, makes that region well adapted to ranching. But whether, on the whole, specialties or mixed husbandry is to become the more absorbing interest, depends upon circumstances which are yet to transpire. Theoretically, it makes little difference whether the farmer obtains half a crop every year, or a full crop every second year, the intermediate seasons being marked by total failures; but a few failures of this kind would unquestionably drive the yeomanry into the system of diversified farming. If they study the history of some of the Western States, they may see another controlling influence in the mists of the future. We refer to the control of the carrying trade. If high rates of transportation should prevail, farmers will be driven into the system of concentrating their grasses and grains into dairy products, and an impetus will thus be given to other industries, possibly to the detriment of other portions of the Dominion; for although our wheat raising capabilities here are gradually diminishing, our adaptability to dairying can no longer be questioned. Let each Province devote its greatest energies to those pursuits to which its soil, climate and other conditions are best adapted.

Yet Canadian settlers in Manitoba and the Northwest can learn much from the experience and failures of their past lives. They have learned the practical and instructive lesson that, no matter how fertile the soil, grain growing cannot be continued for a long series of years with impunity. They have learned that the system of tillage which consisted only of tickling the ground, resulting in the mastery of weeds which absorbed the profits, is a most pernicious practice. Any monotonous routine of farming, too long persisted in, is sure to terminate in the "Go West" movement. If we resign our affairs into the hands of nature, the grain belt will move towards the setting sun with almost imperceptible gradations, followed by the movement of the dairy belt, at never-varying distances.

The pioneers possess many advantages over those of Ontario and the other older Provinces. Having received greater educational advantages than their fathers, they are better organized, and manifest an instinct for infusing their enthusiasm into the feelings of their fellow pioneers from foreign lands. The aptitude they have shown for organizing in matters pertaining to their personal and collective interests is marvellous, especially when it is considered that their habitations are scattered over such a vast extent of territory. This isolation, however, cannot but act prejudicially to the educational advantages of the rising generation; but the practical information acquired by concerted action in their industrial affairs,

cannot prove to be of inferior utility to that gained in the best equipped public schools.

The objection which many foreigners urge against the climate is not participated in by Canadians. The dry, bracing winter is less keenly felt, more enjoyable, and promotive of better health for man and beast, than many of the slushy winters of the older Provinces. While we are recklessly slashing down our magnificent forests, thereby heaping further ruin and disgrace upon our climate, they may take warning by our fatal experience, and be stimulated to improve their climate and control their winter blizzards and summer drouths by hemming in their fields with waving walls of trees, and dotting their prairie regions with monumental forests. In our last issue we presented facts and illustrations by which these ends can be most successfully accomplished.

Another deviation from old Canadian methods is the occupation of immense farms, and the establishment of model farms by the C. P. R. along the line of that railway. Farming on a very large scale is still a doubtful enterprise, and the fate of the great Dalrymple Farm in Dakota has shaken the faith of many capitalists in such gigantic undertakings. Prairie lands are particularly adapted to big and high farming, and if it tends to no other good, it will be an education centre for small farmers, and will possibly stimulate them to greater exertion. With regard to model farms they will likely have the same effect; they may hasten development in many new directions, and an opportunity will be afforded of comparing their usefulness with that of government enterprises of the same kind.

There is a possibility of over-production and consequent reduction of prices in the beef business. At the present relative prices of field products and beef, there is more profit in the latter than in the former, but there is still a heavier pressure in operation. Wool and mutton raising is at a discount in the Western and Southern States, and the sheep owners are discussing the propriety of changing their investments into beef raising.

The English, as well as the Americans, are beginning to recover their senses in live-stock matters. In an address delivered at the Conference on Education at Kensington, England, Lord Fortescue made the following characteristic remarks, which should be taken into profound consideration by our farmers and stockmen:—"I think Mr. Jenkins is right in suggesting that the Royal and the other large agricultural societies might usefully divert to the assistance of the practical education of farmers' sons for farming, some of the money which they now (injuriously as I believe) devote to the encouragement of so over-fattening what are mis-called breeding animals, as to incapacitate some and deteriorate many more for breeding purposes."

THE FARMER'S ADVOCATE has a larger circulation than all the other agricultural papers in Canada combined. It is the best authority on all questions pertaining to the different departments included in its columns, and its articles are fresh and original. As an advertising medium it has no equal in the Dominion. Send for a free sample copy.

ON THE WING.

Our Dairy Interests.

When passing through the building that contained the dairy exhibits at Ottawa, we met Mr. Ira Morgan, who is probably the most influential gentleman with the farmers and directors of agricultural affairs in this locality; in fact, his voice will have great weight in the general management of agricultural affairs in the Dominion. In conversation with us he said his policy was to "Conserve such things as were right and reform such things as were wrong." Would it not be well if all could adopt that motto and faithfully act upon it? We hold Mr. Morgan's abilities in great esteem, and hope he may use the great talents given him for the best interests of the farmers, as from the present prospects there appears a probability of great changes and large expenditures by our governments under the name of agricultural expenditures. Mr. Morgan has it in his power to do more good or harm to the agricultural interests of this Dominion than any other farmer in it. This is our opinion, for the steps now taken will bear their print in future years. This gentleman has been a member of the Board of Agriculture for many years; his voice carries weight there. He knows what is right and what is wrong. He may not be able to carry his points, but we must only hope that the Board will adopt Mr. Morgan's motto. If each of the members or the majority would only express their views and let their voices be heard before any radical changes are made, we feel satisfied that the present deplorable position of the Board may be so changed that it may again become an honorable and beneficial institution, and regain the lost confidence and respect it once had. We have always been in favor of the maintenance of the Provincial Board, and have exposed many of its defects in hopes that they might be remedied; but up to the present we regret to say they have yearly increased. Sooner or later a change must come. It would be far better for the Board to take upon themselves to check the evils that they know to exist, than to increase the growing public dissatisfaction.

THE CHEESE EXHIBIT.

Mr. D. Derbyshire, of Brockville, is in charge of this department. He is one of the gentlemen of whom Canada may be proud, being a native of our country. He is a conspicuous person, standing physically above any member of the Board of Agriculture, and perhaps any of our legislators, towering above all in the building, and well proportioned. He was born in the county of Leeds, in 1845, and commenced cheese making in 1873. In 1877 he managed seven factories; has been several times elected Reeve of his native municipality by acclamation, and is now the President of the Eastern Dairymen's Association. In 1883 he paid out over \$600,000 for butter and cheese; this year it is expected to exceed that sum. He has gained the confidence of the public, and will be heard of hereafter. Boys, do not be afraid of doing your duty at the milk-pail. This position is better than being the manager of a score of broken banking or mercantile institutions.

In company with Mr. Derbyshire and the Hon. A. M. Ross, the Commissioner of Agriculture for Ontario, we inspected the exterior of the rows of cheese. There were various qualities. We asked to be allowed to taste the best cheese in the building. The tester was inserted into a cheese that had the first prize ticket on it, and we all tasted it. We asked if it was made by Mrs. Parsons. "No," was the reply, "but this was"—placing the tester in a cheese that had a second prize ticket on it. We all examined and tasted it. Mr. Derbyshire said that was the best cheese, and that was our unanimous opinion by great odds. We broke a small piece off from each of these, the first and second prize Stilton cheese, wrapped them separately in a piece of paper and placed them in our vest pocket. We took these pieces with us to London, and took them to the Western Dairymen's market held on Saturday the same week. We enquired for the most expert judges, and Mr. Caswell's name was suggested, he being probably the most extensive operator in the west. We took one of the papers from our pocket and asked him to taste the cheese. He said: "I will not; that cheese will taste of you; it has been flavored by the odor from below your arm pits. If I were to carry a piece of cheese like that it would draw its flavor from my feet. Cheese should never be carried on the person, unless corked tight in a glass bottle." We explained to Mr. C. about the cheese. He smelt it and looked at it, and said: "That is a Runter; it is not a Stilton. Mrs. Parsons can protest and get the first prize." Several dairymen were present. Mrs. Parsons has repeatedly complained of the injustice done her; all cheese-men know that none have succeeded in making the real Stiltons equal to those made by her. Why should she—a lady—not be heard and heeded? Leading American and Canadian dairymen have tried to imitate and even instruct her, and failed to succeed in their plans. This has been a continual complaint of years standing. The very sight of the cheese, without testing, should in this case have been sufficient to tell a Stilton. When the highest skill in the production of cheese is and has been so repeatedly disregarded by what ought to be our best authority—the decisions of Provincial judges—it must reflect on all connected, and steps should be taken to find out the reasons, and the remedy applied. There has been many mysterious decisions on important matters. Excuses, apologies and evasion will not always avail. We deem it our duty to make this public in the interest of the ladies. Justice must be done to all or dissatisfaction will increase.

BUTTER.

When passing along the display of butter in the forenoon, a lady came in to see the awards. She was standing near the first prize ticket. We inquired if that was her's, but she said, "No; this is ma's butter; she has been awarded the first prize and gold medal for the best lot of 50 lbs., and I have been awarded the first prize and silver medal on my basket of 10 lbs., also the second prize for my 50-lb. keg." This should be no small honor—gold and silver medal, two first prizes and one second for a mother and daughter to carry off at a Provincial and Dominion Exhibition. Mrs. Ballantyne

is this lady's name; her mother's, Mrs. Graham. They are both from Smith's Falls. We said, "You must be experienced exhibitors." "No, we never exhibited at the Provincial before. I exhibited at our township exhibition and took first prize last year. We thought we would try what we could do at this exhibition, as it would not cost us much to come here." In answer to inquiries we ascertained that they keep the common Canadian cows; they keep everything clean about the dairy and set their milk in shallow pans; let the cream ripen before churning; churn with the dash churn; salt by guess. They appear to have the same as thousands of our women have—an intuitive knowledge of the requirements for making good butter, as Mrs. Parsons knows how to make good cheese, which seems to surpass all the knowledge that is imparted by the mass of free literature that has been circulated at the public expense; in fact much of the government literature has been found to be misleading and of an injurious nature. We asked Mrs. Ballantyne her opinion about churns. She said she took her butter from the churn when in the globular state; she did not wish it to gather into large lumps. She intended to procure one of those end-over-end barrel churns, shown in engraving on next page, near the dash churn; it is made by Wortman & Ward, of London, Ont. She preferred this to the dash churn because if it is worked a little too long it will not gather the butter into lumps as soon as the dash churn will. This will appear a strange reason to many, particularly to those who wish the churning done in a few minutes; but to those who really know how to make good butter, it is of importance to know that too much haste in churning will deteriorate the quality. There have been many churns sold that are only detrimental to the quality of the butter produced. A government employe has been known to use his abilities to induce farmers to purchase implements or utensils that have not the merit that other wares have. Of course incorporated bodies must be shielded, but the loss falls on the farmer, who wastes his time and money in using implements of third quality or useless; also in paying for literature that he never asked for, and which may have been placed before him for purposes foreign to his interest. If we are led to believe that any measure really emanates from the farmers and is for them, we would immediately give it our hearty support; but when expenditures are made for other purposes under the name of agricultural advancement as a cloak, no farmer is doing his duty unless he uses his influence to correct it.

This journal is and always has been a supporter of agricultural education and agricultural exhibitions, the Provincial in particular. It has not abandoned that course, but it has met with the disapproval of some for exposing too plainly some of the defects which need improving. Farmers should have more information from the officers and members of the Board. Our agricultural affairs should not be conducted in caucuses or in whispers, but as stated in the editorial columns of a leading political paper, "things should be conducted openly and above board." Are they, have they been, can they be? that is the question.

We met Mr. G. Whitfield, of Rougemont,

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P. Q., on the grounds. He is desirous of opening a market for our Canadian cheese in Barbadoes and the West Indies. To do this he has erected at Rougemont a cheese factory, and has a large herd of cows. He wished to procure a first class cheese-maker to make the right kind of cheese that would suit that climate. We introduced him to Mr. Derbyshire for full instructions as to the best mode of procedure. It is well for us to look around and send our wares into foreign parts. We wish Mr. Whitfield success in his undertaking.

We also met the Hon. J. H. Pope. We commended him and the government for not opening our doors to the American cattle unless through quarantine. Mr. Pope admits that we have had foot and mouth disease in Canada, and

conclusion that he was very favorably impressed with the fair at Toronto, and that he considers "fair" a mere suitable name than "exhibition,"—more applicable to the present state of affairs; also that he is inclined to favor attractions, and that we might expect his sanction to large expenditures in Ottawa for agricultural purposes. We have the audacity to suggest time and patience, to see first the result of the present changes and effects of present expenditures.

OUR ILLUSTRATION.

Our illustration is made for the purpose of drawing your attention more particularly to the great and growing dairy interest, which has during the past year been much more profitable than the grain or stock interests of our country, and is in all probability likely to remain so.

his face. Some may recognize a resemblance in the Governor and Lady. But we only hope that each will do his or her duty better to advance your interest than the designer of this illustration has; if they can do no more good, that none will do more harm than the illustration.

Fatal Hog Disease.

ONE THOUSAND SWINE DEAD IN A MONTH IN PERRY COUNTY.

NEW BLOOMFIELD, Pa., Oct. 4.—A hog disease, which for some better name is called hog cholera, is sweeping over Perry County with alarmingly fatal results. When seized with the malady the animal begins to swell at the throat, the affected part presenting a dirty,



The Dairy Exhibits at the Provincial Exhibition, Ottawa, 1884.

considers that with our present quarantine we can bid defiance to it and keep it from our herds. We do not think a single case of it can be found in Canada at the present time.

We also met Hon. A. M. Ross, Commissioner of Agriculture for Ontario. He expressed his doubts as to the advisability of continuing the government grant to the Provincial Exhibition.

We were present at the annual meeting of members, directors, etc., held on Thursday evening in the City Hall at Ottawa. The attendance was very meagre in comparison to what it used to be. The minutes were passed and the president read his address. A resolution was passed commending the continuation of the grant. There was no life, no animation, no discussion, as formerly.

We listened to the Governor-General's address; he is a good pleasant speaker. We arrived at the

Our well wooded, well watered and well grassed lands will produce a better quality of butter and cheese than can be produced in more southern climates, or on treeless and poorly watered prairies. With care we can make such a reputation for butter and cheese that they will be sought for by those who desire the best in other lands.

We wished to represent Mr. Derbyshire and Mr. Morgan in the foreground. The Marquis of Lansdowne and Lady are passing through the building; the Hon. J. H. Pope, Minister of Agriculture; Hon. A. M. Ross, Commissioner of Agriculture; Mrs. Graham and her daughter; Mr. Whitfield, the President, and other members of the Board are seen in the background. But unfortunately we had not our best artist on the ground, and some of the faces are not recognizable; although those who have seen Mr. Ira Morgan may recognize

brownish appearance, and death usually follows in from twenty-four to forty-eight hours. It is estimated that not less than 1,000 hogs have died in the county during the past month, as many as 200 having perished in one township, with no apparent cessation in the spread and fatality of the disease. Thus far all efforts to successfully combat the disease have been barren of results, and so far as can be learned not one of the animals attacked by the strange malady has recovered. It is feared that the usual heavy fall and winter shipments of dressed pork from this county to the eastern markets will not only not occur this year, but that requisitions on foreign markets will have to be made to supply the home demand.

[We extract the above from the *Farmer and Dairyman*, of Syracuse, N. Y., of October 10. From another paper we see that Hog Cholera

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has reached Main Chuck. Question—Is not this disease rather too near our borders? Formerly some said there was no danger of it in the east or north, but only in southern and western States. American pork and American lard are being imported into Canada; American hogs are passing through Canada daily. We do not know if they are still slaughtered here and shipped as Canadian or Irish bacon, or Westphalia hams; they were when we last visited some of the packing houses. Should we not take immediate steps to guard more effectually the health of men? The health of our stock should be regarded more than party, monetary or railroad influences. If we maintain the health of our stock, it is a great step toward maintaining the health of men. Man will not consume meat that is pregnant with death, if he can procure wholesome food. It requires no additional taxation, no loss to any farmer, and only a little precaution. Should we not take every possible means to maintain the healthy reputation that our stock now has, and prevent it from being classed as foreign meat? It is our impression that Canadian meat will command nearly double the price that American meat will, if we take active steps to maintain the healthy state of our stock. Perhaps the Jews had greater and sounder reasons for discarding the hog than we are aware of. A healthy hog or a healthy man we do not object to, but who would approach a man with a pestilential disease? The dead hog has imparted death to man previously. We have had warnings. Canada should have and hold a reputation of having the healthiest cattle in the world. Is this not a reputation worth striving for? Would not our farmers command much higher prices for their stock, their meat, butter, cheese and poultry, than they now command. The greatest pedigree that our stockmen could have would be, "It is Canadian." The best brand our butter and cheese packages could carry would be, "Canada." It would carry the golden ring of purity to all lands. We trust that every one of our exchanges and readers who may see the necessity and propriety of these remarks, may lend their aid to advance these views. Prevention is better than cure. There are complaints of the lack of confidence in railroads, in some monetary institutions, and many business men. Let us prevent a shock of public confidence in the health of our stock, or the purity of meat, lard, butter or cheese produced in Canada.]

There are 95 species of forest trees in Canada, of which Ontario embraces 65. Only three of our Canadian species, namely, the chesnut, the yew, and the white birch, are identical with those in Europe.

Mr. E. C. Tisdall, in a paper read before the Dairy Conference, Gloucester, Eng., makes some very striking remarks with reference to the condition of breeding cattle. He maintains that stock used for breeding should be kept in a fair growing condition, a higher state acting prejudicially to the generative and the milk-secreting organs. He holds that disorders are liable to take place when the proportion of fat exceeds one-twentieth of the whole body. He lays particular stress on the evil practice of over-feeding for the purpose of competing for prizes at shows.

Special Contributors.

A Chatty Letter from the States.

[FROM OUR CHICAGO CORRESPONDENT.]

Exhibitions of cattle at all of the State and district fairs in the West have been greatly curtailed, if not entirely wanting this fall. The cause of the empty cattle stalls was the commotion raised a month or so ago about the outbreak of contagious pleuro-pneumonia, which has not yet subsided. At St. Louis, where there is always a splendid display of bovine beauty and usefulness, there was not a single animal of the cow kind. At the Indiana fair the much abused Jerseys were the only ones scheduled, but the awards of premiums in the general cattle competition were as good as stolen by animals that would have stood little or no show if the owners of some of the best herds had not been afraid to let them go to the exhibition on account of the scare about diseases.

It may be possible that this same trouble, which does not seem in a very fair way to be adjusted before that time, will interfere somewhat with the success of the November fat stock shows at Chicago and Kansas City. Doubtless there will be a diminished attendance of breeding cattle. This cannot rightfully be regarded as a loss when it is remembered that they are shows for fat stock and not general fairs. A good many sales of importance are advertised to come off, however, and there will certainly be a considerable display of choice breeding cattle on that account. It is sincerely to be hoped that the sales will not be failures, but they are very likely to be, for the reason that the rumpus being created by the veterinary place-hunters has already caused a depreciation of at least twenty per cent. in the value of nearly all breeds of fine cattle. It is not among the improbabilities that the bidding will be so spiritless that a few buyers will get some big bargains, and the cattle will be withdrawn, as numbers have been since the present excitement commenced.

There is no doubt that the United States are sadly deficient in competent veterinary inspection, but the people are scorching between two fires. A large number of ignorant and unprincipled quacks and professional rascals are trying to have a great number of offices created and secure large congressional appropriations, while a great many of the leading cattlemen of the country, in their earnest zeal to have ample protection brought about, are making the strongest kind of support for these very unprincipled fellows.

What will be the upshot of the present difficulties of the cattlemen is not now possible to tell. November 13 14 there will be a convention of cattlemen in Chicago, at which it is thought the matter will be discussed from the veterinarians' standpoint, while in St. Louis, during the week of November 17, there will be another national convention at which it is thought there will be considerable opposition to the so-called "cow-doctors." Meanwhile the herds of the country are unprotected by thoroughly competent men, and all fine stock values are depreciating on account of the reports, whether false or true, being made by the government officials.

Truly the breeders of Jersey cattle must re-

alize the force of the old saying, that "every dog has his day." A very few months ago what breed of cattle was enjoying such a boom as the Jerseys? Now there is no breed of cattle under such a ban, and it is all on account of the fact that the reports of contagious disease were limited to that breed. It is rather hard on those who have bought cattle of that breed for speculative purposes, but so far as the general public is concerned, there may be some compensation in the present trouble. Booms do not benefit the majority, and no one can say that the beautiful and profitable little Jerseys were not having rather more than their share of big prices.

It is ridiculous how our agricultural exhibitions are being converted into horse-racing and general sporting meetings. What do we have fairs for if not to have the agricultural resources of our various farming communities brought out as the principal features? It is not appropriate for fair managers to attempt to rival fourth of July celebrations, pyrotechnically, or the great travelling circuses. Experience proves that more people, though it must be admitted a different class, are attracted by a horse race, a sham battle, fireworks or a bull-fight, than to an exhibition of solid, substantial agricultural possibilities; but are county, district and State fairs to be run for the money they will net the grasping, catch-penny managers? We say, No. Fair associations must not be controlled by the horse-jockey element if the best results are to be looked for and realized.

It may seem too conservative, but the writer is of opinion that to abolish all trotting exhibitions and substitute walking contests for farm horses would strike more directly at the root of the present evil than any other plan that could be adopted. The general farmer should not attempt to compete with those who devote their whole time, money and attention to producing or trying to produce the fastest flyers. Heavy draft horses and good ordinary farm horses should be taught to walk faster before the plow and the grain wagon. If for no other reason, the feature of jockey racing at fairs should be abolished because of the degrading, demoralizing influences and surroundings which it always insures.

How shamefully the common cow is abused just because she is a common cow.

Pope says:

"Honor and shame from no condition rise; Act well your part, there all the honor lies."

If our common farm animals were fed and cared for, and culled and selected every year as carefully as are the expensive animals of high pedigree, our scrub stock would soon cease to be scrub stock. This is an age of experiments. Let some progressive, inquiring young farmer take a common heifer valued at \$30, and a high pedigreed, \$300 blue blood of the same age, and for just one year subject them both to the same kind of treatment, and then note results and compare profits on the two investments.

The corn crop throughout the West is immense. The farmers in some sections began feeding new corn to hogs as early as the middle of August, and there are now a good many hogs almost ready to come forward, that were fattened on the new crop.

Vast numbers of far western range cattle are this year being put into distilleries to fatten on

stop during the winter. The high profits on that kind of feeding lately have had the effect of attracting a good deal of attention to it, and it may be that the matter will be somewhat overdone, as it is now tolerably certain that there will be a very large number of cattle made fat on corn.

Mule raising is one of the most profitable kinds of stock raising engaged in in many parts of the South and West. Mules mature earlier, live longer, eat less, are hardier, and stronger, and sell for more money than horses. These are some of the well founded claims set forth by those who advocate mule breeding. All that is necessary to commence in the business is to secure a thoroughbred jack and a few common mares. The light mares of the southwest are a good deal used for the purpose, but it pays best to have good sized mares, because there is a much stronger demand for large than for small mules.

The dressed meat system is gaining on the old mode of live stock shipments very rapidly. Not only is the trade increasing so far as cattle are concerned, but also in the sheep line. Chicago dressed mutton is now going out in nearly all directions in rapidly increasing volume. If this has the desired effect of improving the character of our mutton sheep and causing the attention of flockmasters to be at least divided between the wool and mutton production of sheep, it will be well. New Zealand promises to flood the British markets with cheap frozen mutton, but as yet this continent has not been able to produce enough good mutton for home consumption. There is a great demand for choice mutton sheep.

Taxing "Scrubs."

BY MARSHFIELD.

One of the stock-raiser's organs has discussed the propriety of taxing "scrub" bulls. It means to do the slow farmer a kindness by cracking the taxation lash over his head. There is an affair of "conscience" involved, which he is "violating" every moment of his life, and his "lust reigns supreme." This mild impeachment must insinuate that he is deliberately ruining his own pecuniary interests.

The motives which prompted such a suggestion cannot be overlooked by any thinking farmer. Farmers' interests are diversified. One interest grows into prominence; it gains a leader, organizes, establishes an organ, forming the nucleus for a boom. How providential it is that farmers are hard to move! If it were not so, those overtaken by the first breeze of the fruit growers' boom would directly turn their farms into gardens and orchards, and live on fruits; those stung by the busy-bee boom would have their acres beclouded by swarming bees, and live on honey; those flapped or chucked into the poultry boom would convert their fields into poultry yards, and live on fowl; in the same manner the dairy boomers would set us a table of butter and cheese, and the plumed knights of the live-stock quill would prescribe an exclusive diet of adipose.

If the grain and grass growing and the machinery interests were now organized and possessed an organ, and each farmer took a paper representing each of all these different industries, then there would be a fair warfare terminating in the survival of the fittest. So

long as the system of mixed husbandry prevails, and the back-bone of the farming body remains unorganized, these reflections must point out the necessity of every farmer taking a fearless and independent paper that not only represents all his diversified interests, but one that also gives each interest such a prominence as bears its proper relation to the natural adaptabilities of the country. This is the only means by which overdoing and overbooming can be prevented. Nothing but a perverted "conscience" and the basest "lust" for pelf could move stockmen to open markets for their goods by laying down the principle that the farmer is to be taxed for his poverty, ignorance, or his neglect of his own private business affairs. Where would the application of the principle end? How many government officials would be required to enforce the observance of such a series of laws?

But I most respectfully join issue with the organ as to inaction or negligence on our part in live stock matters. Many of us in dairy districts do not want to raise calves, and we have discovered that a native cow will give as much milk when put to a "scrub" bull as when put to an imported one, and many of us have also discovered that by skillful selection and management we can improve our native stock more cheaply and rapidly than by the introduction of pedigreed blood; we have found them to be extremely susceptible of improvement by selection and responsive to generous treatment. They are true to their kind, and best adapted to our present conditions in most localities. Besides, those of us who advocate improvement by the infusion of foreign blood are waiting patiently for the time to come when a new breed will be discovered that will cast all known breeds into the shade. This day cannot be far distant, for all the breeds we have heard of had their boom. Why didn't the organ tell us what bulls were to be substituted for our defunct "scrubs?" Because it dare not, for this would be showing partiality to a particular breed, and the organ's existence depends upon its neutrality. If we are to judge this for ourselves, then let us be our own judges all round.

From my experience of taxation, stock, and agricultural papers, I am convinced that the tax is on the wrong poll. There is something else that has greater need of weeding out than "scrub" bulls. I refer to scrub editors. It has been said that the man who fails in every other pursuit is still good enough for a farmer. This truth is but half told; for if he then fails as a farmer, he can still get a license to be an agricultural editor. I don't care whether my proposed tax is put on the editor's head or on the head of the farmer who takes his paper. I will submit to be taxed myself for at least a half a dozen of the agricultural papers which I take. I'll not take them any longer. I now feel more keenly than ever that I am "violating" my "conscience" by doing so, and that my "lust" for the ridiculous "reigns supreme."

In order to increase the size of common fowls, the cock selected should be a light Brahma, which will give heavy feathering, compact size, and small comb. Such a cross will lay earlier than the pure Brahma, and make better nurses for chicks.

Poultry.

Providing a Supply of Green Food.

The Farm and Garden says:—"One of the greatest difficulties in the way of keeping fowls in the winter is that of procuring a plentiful supply of green food. As November is a month during which many of the crops are put up for winter, it is an excellent time for making provision for the poultry also. One of the best vegetables to use is cabbage, but in order to reach it conveniently for use, some better method than burying the heads under ground must be adopted, and this may be done by placing them close together, with the roots under ground and the cabbage covered with straw and corn-stalks, which may be moved whenever a supply is desired. As poultry are not partial to frozen cabbage, they may be chopped and left over night in cold water. In fact, by placing turnips in cold water to thaw, they may be chopped and fed raw also. A portion of raw vegetables at times is highly relished by the fowls, though a mess of cooked food is also excellent.

We can cut rye this month for green food. The rye will not be very tall, but so much the better. When cut, let it be dried enough to prevent fermentation, or place it loosely in the barn. It may wilt; but it will be tender when moistened with warm water. It requires but very little labor to chop a few handfuls into short lengths once a day, and if fed in connection with cabbage, a good dish of green food may be supplied. We might recommend spinach, lettuce and turnip tops, but the rye and cabbage may be more easily procured, and also fed with less labor. We are not stating what should be fed, but what may be done in November. Of course, if one has lettuce in cold frames it may be fed, but lettuce is too valuable at this season, while cabbage is always cheap, especially as a single head furnishes quite a large meal for a flock. The hay from the second growth of clover may be cut up in winter also, and a portion should be placed aside now for that purpose, while the small white potatoes may be used advantageously, when boiled and mixed with soft food. Green food need not be fed every day, as a rule, but if allowed three times a week will be found very beneficial."

When the chickens are afflicted with diarrhea, one of the best remedies is boiled milk, thickened with corn meal while boiling. Let it remain until nearly cold, but should be fed warm. A pinch of red pepper will improve it.

Ducks should be allowed as much liberty as possible, as they are not partial to confinement like chickens. When they are kept in the poultry yard with hens they become quarrelsome, and do more damage than they are worth, and for that reason should be kept separate.

Oats should always be ground, if possible, and mixed with the soft food. Sometimes the hens will reject the whole grains, and when this is the case, they may be soaked over night in hot water, when they will be eaten readily, as well as being more digestible.

Garden and Orchard.

Useful and Ornamental Trees.

We have heard of one farmer near Rochester, N. Y., who planted a row of crabapples around his farm for ornamental and shade purposes, and he made more money from them than from all the other productions of the farm. In the northern part of our Dominion they are the only reliable fruit of the apple variety that can be depended upon.

The accompanying illustration was taken from a photograph of Mr. A. R. Whitney's orchard, Franklin Grove, Illinois. The grafts were set in 1874, and the trees have now borne six consecutive seasons. This variety, Whitney's No. 20, is a great producer, and is also good for ornamental purposes.

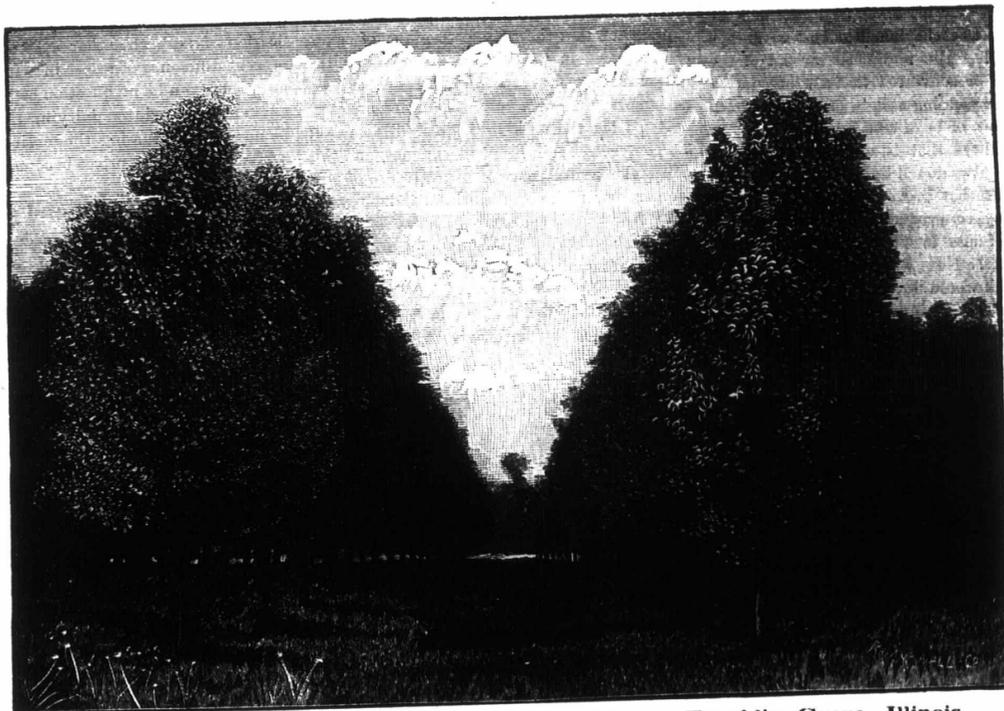
northern latitudes would do well to plant seeds and cuttings of such trees as are known to be hardy. They might make quite as much by paying attention to this as by any branch of agriculture.

Crab Apples.

BY HORTUS.

Amongst the many useful varieties of fruits grown in Canada the crab apple deservedly occupies an important position. Indeed no orchard or fruit garden is complete without its crab tree, from which the careful housewife makes her winter's stock of jelly and other forms of delicious preserves. Though they have always been a popular fruit, not much attention has been paid in a general way to their cultivation, or a very keen interest

ing so many valuable qualities, they commenced its culture for dissemination throughout the country. The fruit is exceedingly large for a crab, of a pale yellowish green when ripe, with a faint glow of red on the cheeks. The flesh is sweet and sprightly, and makes the very best of preserves. Several varieties of Russian origin are also very useful and worthy of a place in the orchard. The Marengo crabs are valuable and worthy of cultivation. For ornamental purposes the crab tree is invaluable. In the spring its beautiful blossoms attract loving admiration, while when the tree is loaded down with its attractive fruit nothing can be more ornamental. For the lawn or small places, the crab is a desirable tree. The double flowering variety is a very handsome ornamental tree when in full flower, the blossoms resembling miniature roses, very double,



Crab Apple Orchard Owned by Mr. A. R. Whitney, Franklin Grove, Illinois

Mr. G. Leslie, of Toronto, has tried all the varieties, and claims to have originated the best crab in the world. As Mr. Leslie's knowledge of fruits and his wide-spread and honorable reputation stand as high as those of any nurseryman in Canada, we have concluded to introduce this crab among our prizes for this year. We recommend all of our subscribers to plant one somewhere, and those who reside beyond the safe limit for growing apples should by all means plant a few trees of this superior variety. A good crab is better than a bad apple, and will grow where apples will not. There has been a great loss sustained by farmers by unprincipled agents selling unsuitable apple trees in our northern latitudes, where the vendors well knew that they would not stand the severity of the climate. Trees that have been procurable in the nursery rows at from 3c. to 5c. each, have been sold by the travellers at 75c. to \$1 each. Some of our subscribers in

taken by the public in learning the best varieties. Of late years, however, their cultivation has been of increasing importance. First, for the great hardiness of the tree; it is planted in those portions of our country where the climate will not allow the growing of less hardy fruits. In such places the crab apple is put to all the uses that finer fruits are in the more favored parts of the country. The increasing demand for the trees and the great interest taken in growing the fruit has led attention to raising new varieties. We have now offered by nurserymen for sale, with glowing descriptions of each, over thirty different varieties. They all have certain merits, and a fair specimen of the best of them is the Transcendent. This variety is very desirable, the growth of the tree is remarkable, and the fruit abundant, large and good. A most interesting and valuable variety is Leslie's Sweet Crab. It was raised from seed by Messrs. Leslie & Son, and possess-

and of a bright rosy pink hue. Crab apples make capital cider, and for this purpose whole orchards are planted in the Eastern portion of Canada. The Transcendent is generally planted for that purpose.

Farmers seem to observe no regularity in planting trees along the road sides. There seems to be room for difference of opinion with regard to the extent to which farmers may encroach upon the road allowances. Of course all farmers would like to plant their trees as far in upon the road as possible, thereby securing more land for themselves; but there must be a just measure between the interests of farmers as farmers and their interests as travellers on the roads. If the rows along the road-sides are planted close together, the travellers will have fine shady avenues in a dry summer, but during the wet seasons the roads will remain muddy for too great a length of time.

The Dairy.

Does Winter Dairying Pay?

There are some new enterprises of doubtful success, in which farmers should be cautious before risking capital in them. This, however, does not apply to winter dairying; for every farmer can make calculations sufficiently close to establish its advantages and disadvantages over summer dairying. For the present we shall confine our observations to the conditions of the average farmer in sections where there are no creameries.

Summer dairying took its origin under conditions very different from those of to-day. Under straw-stack accommodation and management dairying was perfect in its day, when superior facilities were inaccessible.

The average farmer has now good stable accommodation—for his cows, at least: and the question is, Does he take the best advantage of it? He has also moved so far out of the old rut as to be convinced that a winter ration for a cow not yielding milk should not contain less nutriment, or be of less value, than hay of average quality—that is, a cost of about 12 cents a day. We do not defend this, however, for experience has proved that the best and cheapest way to produce a good calf, and a large yield of milk in summer, is to feed liberally in winter. Now, a high feeding ration for a cow in milk would be composed of foods costing 20 cents a day in winter, or 8 cents more than the maintenance ration. Taking the basis that the cow is stalled for 200 days and pastured the remaining 165 days of the year, what do these figures show? $200 \times 12 = \$24$, being the cost of winter maintenance under the present system; and $200 \times 20 = \$40$, the cost under winter dairying, showing an apparent loss balance of \$16. But there is a small offset against this amount. Taking the average rent in the cleared districts of this Province to be \$3 an acre, and the average pasturage per cow to be three acres, we get $3 \times 3 = \$9$ as the cost of summer keep under the summer dairying arrangement; but the farmer who believes in low feeding in winter because the cow is not giving milk, surely would take steps toward economizing pasture in summer for the same reason. In this particular we merely wish him to change his mode, not his ideas, so we take him strictly to account. In practice he attempts to save 40 per cent. on his winter ration on account of the cow being dry; now, for the same reason, let him save the same per cent. of pasture, which will reduce the \$9 pasture bill to \$5.40, leaving an apparent loss of \$12.40 on the whole year's feeding. This is all the loss which could be incurred under a change to winter dairying; if there is any difference in labor and management it will favor the winter system.

In presenting the credit side of the account, let us first endeavor to select such items as will cancel the debit of \$12.40. With regard to the winter yield of milk, compared with that of summer, so much depends upon circumstances that no accurate conclusion can be arrived at. Grass and other succulent foods are adapted for quantity, and solid foods such as grains, for quality, and as succulent as well as solid foods can be fed in winter, the ration can be regulated for either quantity or quality of

milk. Even with very good winter quarters and the best attention, especially if the cow gets ice-cold water, she will fall off in milk during the prevalence of cold snaps; but the probabilities are that this loss will not be near so great as during the sweltering days of summer, and then the cold spells never last so long as the hot, droughty days. The temperature and food, and hence the flow of milk, can be more easily controlled in winter. However, let us suppose that the daily average under both systems is the same in quantity; as to the duration of the season we shall speak hereafter.

In reference to the quality of milk the case is different. The gain in this respect resolves itself into two factors, viz., (1) the greater percentage of butter fats in the milk, and (2) the greater quantity that can be extracted from the milk in winter than in summer—except when ice is used. Taking as a basis the likely supposition that the same percentage of cream can be raised in winter as in summer with the use of ice, we have accurately conducted experiments to guide us. The percentage of butter from the milk in winter will be about 3.6 per cent., against 3.2 in summer, and this will make a difference of about 15 lbs. of butter per cow in favor of a winter dairying season. Add to this the extra quantity of butter fats obtained owing to the use of concentrated foods, and nobody will deny that the sum will cancel the \$12.40 of supposed deficit; indeed, we might justly be accused of being much under the mark by arriving at this conclusion.

Whatever additional advantages we can now prove will be a clear gain. The duration of the milking season is greatly prolonged under winter dairying. The cow dries off rapidly in the fall when the cold season is coming on, being subjected to sudden variations of temperatures and changes from succulent to dry foods; whereas under winter dairying the close of the season is in June, and possibly part of July, when grass is abundant and the temperature agreeable. At this time she can best support her young and produce a good flow of milk. An average of 4,500 lbs. of milk per season is a fair estimate under summer dairying, and the average price of butter 15 cents. Therefore $4,500 \times 15 \times 3.2 = \21.60 , being the price received for the season's butter, a fair average for the quantity of milk under the winter system would be about 4,800 lbs., and the price of butter at least 13 cents higher, so that $4,800 \times 28 \times 3.2 = \37.40 , or a cash balance of $37.40 - 21.60 = \$15.80$ per cow in favor of winter dairying. But this is not yet all. The farmer can now indulge his low feeding theory for dry cows to his heart's content; for this happens just in the season when the grass is scanty, and when there is escape from the danger of producing bad milk and bad butter by means of filthy water drunk by the cow. In winter the water is in its greatest purity; hence the chief cause of better butter. The saving of labor during the very busiest months and when hired help in so expensive, is immense. The average farmer usually engages a man for the spring and summer months only, and this sometimes costs a'out as much as an engagement by the year, so that the winter labor would be virtually thrown in, especially when it is considered that more reliable help can be obtained

by giving constant employment than by monthly engagements. If good calves are to be raised, the work can be more conveniently and cheaply done in fall and winter than in summer. Get the calves well tided over the first winter, and afterwards they will be able to take care of themselves. Another important advantage of liberal feeding in winter is the increased value of the manure, which will repay all the labor spent in saving it, whereby an impoverished soil may soon be restored to fertility.

We are convinced that if the farmer once changed his system he would also soon change ideas and feed liberally and regularly all the year round. From the present system (if it is worthy of being called that name) there are three changes that should be discussed by the farmer, viz., (1) winter dairying, (2) summer dairying with soiling and the use of ice, and (3) winter and summer dairying, being a modification of both the other systems. With the present difference of prices in winter and summer, there can be no question as to the superior advantages of winter dairying; and there will be no use in discussing the merits of the other systems until these prices become equalized.

Poison in Milk and Cheese.

Statements having been made public to the effect that numerous cases of poisoning from cheese have happened in Michigan, have led to a thorough ventilation of the question by Prof. Arnold in the *New York Tribune*. Several samples have been sent to him for examination. Experts have found such cheese to be characterized by intense acidity. In all the cases that came to the notice of Prof. Arnold, he found that the cheese had been made from sour whey, or was of the acid make, which universally prevailed before the introduction of the sweet curd system, of which he bears the honor and credit of originating. From these and other facts it is highly probable, if not conclusive, that the poison is due to some ferment in the food or drink of the cows. This poisonous ferment, he further observes, develops with the process of curing, until the cheese is from one to three months old, according as the curing is fast or slow, and then gradually diminishes until it becomes perfectly harmless. On cutting the cheese and exposing it to the air, a peculiar odor is emitted, and the poison thus escapes. When the curd is allowed to remain in the sour whey, the strong acid favors this poisonous ferment, and weakens the effect of the rennet.

In answer to an objection as to the possibility of poison getting into the milk, Prof. Arnold writes to the same journal as follows:

'The statement published last month, that two little children in Connecticut nearly died through drinking the milk of a cow that had been poisoned with Paris green, has been questioned as a supposed impossibility. The objector cannot see how the poison could get into the milk, nor how a cow could give milk after being poisoned. These supposed impossibilities are facts of frequent occurrence in all dairy sections. Any substance, poison, medicinal, or otherwise, that can be taken into the blood, will at once begin to appear in the milk and become more and more intense as long as there is a supply in the blood from which to derive

an accumulation. The presence of poison in the system tends rapidly to diminish the secretion of milk, but not so rapidly as to prevent the poison from being mingled with it. In cases of moderate poisoning the mammary glands, when the animal is giving milk, are the most efficient means of eliminating the poison from the system, and often the milk becomes so charged with it as to seriously poison persons—especially children—using it when the cow herself shows little or no indication of its influence. Numerous instances have occurred where cows from eating cicuta, wild carrot, lobelia, and even rotten potatoes, have taken in poison enough to cause their milk to terribly sicken and distress those who used it, though the cows themselves showed no other effects than a falling off in the quantity of milk. A moderate poisoning with Paris green could hardly fail to operate in the same way."

Great Native Milking Cows.

Visiting Kentucky in the winter of 1842, I found native cows, fed only on hay and corn fodder, giving 20 to 26 quarts of milk per day for three months in succession. If the breeding of such cows had been continued with a view of still further increasing their yields of milk, there is no question in my mind that long ere this, they would have produced messes equal to the largest by imported Holsteins or Friesians of the present day. Cows in Ohio and other States were bred equal to those of Kentucky. I think it a great loss to our country that these were not kept up as a special breed, and a herd book established for their record. In that case, we should now possess great native-bred milkers in abundance, have saved our money at home, and not be obliged to send it abroad to import them by the thousand from Holland to fill the large demand recently sprung up among us for superior dairy cows. A further advantage in these would be, when dried off they would fatten rapidly, and make an excellent quality of beef.—[A. B. ALLAN, in Nat. Live Stock Journal.

Jerseys vs. Alderneys.

This is the difference between Jersey and Alderney cows: The former has been kept pure bred on the Channel Island of that name for a long time; no foreign cattle have been permitted to be imported into Jersey for over a hundred years. In the Island of Alderney importations of other cattle have ever been permitted. The Alderneys have not been kept pure, but are made up mainly of a cross of the Jerseys and the Guernseys on their original stock. They are not so fine as either of these two latter breeds have now become, and are more uneven in their make-up. The term Alderney was applied by mistake by the English to Jersey cows when they first began to import them many years ago, but it is not used now, each breed being distinctly classed by itself.—[A. B. Allen, in N. Y. Tribune.

Pleuro-pneumonia has broken out amongst a herd of 250 Jerseys, in Cynthiana, Ky., but the American press manifest an inclination to say as little as possible about it, with a view, no doubt, of creating the impression that the disease is dying out in the West.

The Farm.

Straw as Food for Stock.

In our article on manure we pointed out that straw, being a poor absorbent, was ill adapted for litter. The farmer will now want to know its exact worth as food for stock. The market price of straw must be set down as nothing. Farmers who sell it on the city markets at two or three dollars a load and stand most of the day before they can effect a sale, lose heavily by the transaction.

Let us reason from a hay ration standard. A steer weighing 1200 pounds will require about twenty-five pounds of dry matter per day to keep him in a good thrifty condition. This may be represented by thirty pounds of timothy, which contains the right proportion of flesh and fat forming materials for the purpose mentioned. Reckoning hay at \$10 a ton, the cost of a daily ration would therefore be fifteen cents.

Let us now compare this with a straw ration. The objection to feeding straw alone is that it contains too great a proportion of fat and heat producing material, so that the animal has to eat enormous quantities before it gets sufficient nutriment to repair the waste of or increase the other tissues of the body. It will thus be seen that it will require the addition of some other food rich in flesh-forming constituents to raise the straw up to the hay standard. This can best be accomplished by the use of the most concentrated food that can be purchased in the markets, viz., linseed cake or linseed meal. There are, however, a few other foods rather more concentrated, but they are not so readily procurable. A daily ration of fifteen pounds of wheat straw, ten pounds of oat straw, and five pounds of oil cake, has almost the exact nutritive equivalent of the hay ration. Calculating the straw at nothing and oil cake at the average price of \$30 a ton, or one-and-a-half cents a pound, we get seven-and-a-half cents as the cost of the straw ration—that is, exactly half the price of the hay ration. In other words the value of the straw is raised to \$6.00 per ton. In this computation pure straw is taken; the chaff has a much higher nutritive value, and if the quantity of straw mentioned is made up of one-fourth chaff, the ration will then be as good as the best mixture of timothy and clover. These figures, combined with the experience of feeding cattle on straw alone, lead to the conclusion that straw is the cheapest ration when fed with concentrated foods, and the dearest when fed alone; for in the former case animals can put on flesh; in the latter case they lose in condition, which reduces the value of straw to a minus quantity.

But the objection may be taken that the straw is of some value as manure. To this it may be answered that the manurial value of a ton of straw is about the same after it passes through the animal system as before, if we take into consideration the more direct availability of the dung as plant food and the injurious effect which straw has on the mechanical condition of soils that are not stiff.

There is another important consideration. While straw is a far better absorbent for litter when cut than when whole, it is necessary to have it cut when fed with concentrated foods.

If ground grains are fed instead of oil cake, the meal and straw should be well mixed in the manger and moistened with water, so that when the mess gets into the stomach it will be in a condition to induce free circulation of the gastric juice, and there will be no danger of the mass forming into an impenetrable ball.

Any grain, with the exception of corn, can be formed into a feeding ration with straw, but each would require a separate calculation before the proper proportions and costs of the different rations could be ascertained. Some animals would require a frequent change from a straw and oil cake ration.

Cost of Meat and Milk.

Dr. J. B. Laves has been figuring upon the comparative cost of making meat and milk, particularly the draft each makes upon the soil of a pasture, and gives the results of his calculations in the English "Chambers of Agriculture Journal" as follows:—

"I have a dairy of about 30 cows. For the last two months each cow has consumed daily a little over 100 lbs. of food, consisting of cake, bran, hay, and straw-chaff, and mangels. The dry weight of this food is 28 lbs., while the average daily product of milk is a little over 28 lbs.; but if we call it 28 lbs. it will very much facilitate our calculation, as we shall thus have 1 lb. of dry food producing 1 lb. of milk.

"Milk contains about 13 per cent. of dry substance; 1,000 lbs. of dry food will therefore produce 130 lbs. of dry milk. If I had fed oxen with the same food, I should have expected about 85 lbs. of increase in live weight, containing 63 lbs. of dry matter. The 130 lbs. of dry milk will contain about 7 lbs. of nitrogen; the 63 lbs. of dry animal will contain hardly 1 per cent. The 1,000 lbs. of dry food will contain about 20 lbs. of nitrogen, therefore the milk will abstract 7 lbs., or about 35 per cent, while the meat will take only 5 per cent.

"In dealing with these figures it appears to be the fairest way to show the loss of manure generally upon the whole of the food equally. If I were merely estimating the meat or milk produced by the foods, such a proceeding would be evidently unfair; or if I were estimating the separate manure value of the different foods, a different course would have to be pursued; but here we have to deal with a certain number of ingredients contained in a mixed diet—part home-grown, part purchased—and it is required to know what amount of these ingredients is abstracted by a dairy cow as compared with the amount abstracted by a fattening ox.

"If we assume the manure value of one ton of linseed cake to be 60s. before feeding, it would be worth 57s. if fed by oxen, as against 38s. if fed by dairy cows; these figures representing the value of ingredients removed in the milk and meat, though making no allowance for the waste or loss of manure.

"If, instead of charging the loss of the manure upon the whole of the food consumed, we charge it upon the cake alone, it will require all the nitrogen in four pounds of cake to furnish the quantity contained in two gallons of milk. Under these circumstances, a cow receiving a quarter of a cwt. of linseed cake per week, and yielding 14 gallons of milk, would reduce the manure value of a ton of linseed

take to a very few shillings. It is quite evident, therefore, that the popular idea of dairy farming taking much more out of the land than grazing, is fully borne out by the figures given, and unless the loss is compensated by imports in the form of foods or manures, pasture land will soon deteriorate."

PRIZE ESSAY.

Women as Farmers.

BY MRS. ROBERT WARWICK, WINGHAM, ONT.

In every sphere of life how powerful is the influence and example of woman! But nowhere is her influence so widely felt as in farm life, so many possibilities of success or failure lie beneath her hands; and she who avoids the duties and responsibilities incumbent upon her, is lacking in energy and sympathy, which detract from her true womanliness.

Many of us can look back to the days of pioneer life, when we went forth young and hopeful to make a home in the wilderness where the mighty giants of the forest stood close around, and almost locked arms over our humble cabins—days of unremitting toil and pinching self-denial—days when we learned to the full that "the destruction of the poor is his poverty,"—days of weakness and weariness, when children were arriving in the home nest to be lovingly cared for as best we could care for them. But we struggled on bravely to keep a roof over our heads, and that canker, a mortgage, off the farm. We saw many around us called to lay down their burdens and go home to that country, "the inhabitants whereof shall not say, I am sick." Many others wavered, became discouraged, sold their farms and went off to new fields of labor. Years steal on imperceptibly; it seems to us but a little while. We awaken as from a dream as the rail cars go thundering past. The face of the country is changed; level fields stretch on either side; orchards wave; towns have sprung up; the wilderness has blossomed as the rose. We are yet perhaps in the prime of life. Children are growing around us blessed with vigor of mind and body. Will they be worthy successors to their pioneer parents? Training them to habits of industry and perseverance and self-reliance is the first step, and surely woman's influence will be felt here. The mother is the pulse, the very core of home life.

"Where's mother?" asks the school boy, as he comes in, satchel in hand, and straightway marches all over the house to find her. "Where's your mother?" asks the tired father, and all seem happy in her presence. We have no sympathy with the Women's Rights movement. The rights of a good woman are the love and respect of her husband and children, and she can best secure that love and respect by taking a real interest in all that concerns their welfare, and by endeavoring to train up her children to do their duty well in that sphere of life in which it has pleased God to place them. The mother who confines herself exclusively to domestic affairs indoors, unable to tell a passing caller on what part of the farm her husband is engaged, or what work is going forward, may be an excellent housekeeper and an estimable woman, but she will fail in bringing out the best possibilities of her child-

ren's nature, or in making them farmers at heart. With all our labor saving machinery, there is still work for all. Nowhere is co-operation more necessary than in a farmer's family. Avoid as far as possible that drain on a farm, hired help. Let "together" be the motto, and a family so united will prosper in their undertakings and preserve friendly relations in after life. In times of hurry our girls will willingly assist at any work suited to their strength. The light of heaven and the dancing breezes will not injure them, and they need not forfeit any real essential of womanly character by so doing.

The thrifty days of our grandmothers are not past. I know a family of farmers daughters who can harness their horses, and while one drives the reaper, others bind up the grain, draw it in, etc., attend the pigs, calves, bees, vegetable garden, spin and manufacture the wool, etc., and these girls are no ignorant rustics either. They are high school graduates, have their organ, and a home supplied with all the comforts and many of the luxuries of life, all chiefly owing to the example of a thrifty, intelligent mother, who is a farmer at heart, and taught them to be a credit to their upbringing.

These are not exceptions. I know many well read, refined girls of the same stamp, and healthier, happier girls one need not wish to see. With what a zest will the young people attend to the lesser details of the farm work if mother goes out, as she finds opportunity, and gives her companionship and advice, tending the vegetables and strawberries, marking off a drill of this or that new variety of potatoes, and keeping them separate for seed. "In all labor there is profit," and honest satisfaction as well. That flock of ducks and geese represents so many additions to billowy feather beds and pillows, "plenshing" for future homes. That flock of turkeys means so many dollars (if pretty hardly earned), which will go far to replenish the winter outfit. Plan how you should spend every dollar of your mutual earnings; explain your circumstances to them, why this or that coveted article must be done without a little longer—and poor must be the child's moral nature if he does not well repay your confidence. Your own burdens will become lighter when you see how buoyantly they will help you to bear them. We have seen parents snatched away from their children, leaving them in total ignorance of the state of their affairs, until things were laid bare by total strangers. How humiliating! Let the mother, for she has the best opportunity, study the tastes of each child. Some boys are born "cranks" after machinery, carpenters' tools, etc. Do not stand in the way of such. Let each choose his own profession, but it is foolishness for others to dawdle away from the farm, to become teachers, agents, etc., having no natural aptitude for such callings, but merely with the hope of gaining a more genteel livelihood. We have seen such, after having signally failed in their ventures, return as a burden to the farm, perhaps bringing with them helpmates as inefficient and genteel as themselves.

I do not fancy the much vaunted plan (I speak from observation) of giving this child a

colt and the other a sheep; it leads to emulation, jealousy, and a better feeding and tending of that which is their own, to the neglect of something else, and as the stock increases the dilemma becomes greater. Let the interests of the family be one, leaving the rest to the discrimination and generosity of the parents. Let us be as generous with our children as we consistently can be; avoid all niggardliness. With schools within the reach of all, none need grow up in ignorance. Let us educate them as well as our means will permit, and provide good sound reading matter. Let agricultural papers be found on our tables. If our home is ever so humble, let us beautify its surroundings, plant trees, cultivate flowers, encourage singing and reading aloud. This leads to friendly discussion and criticism. What does all our labor lead to after all but to make home life happier and better by trying to have things done in season? By making the most of our resources, and using a little of what the Americans call "faculty," we need never allow our work to degenerate into drudgery. In these days of cheap excursions, picnics, celebrations, etc., there is no fear that young people will suffer from an occasional outing. Indeed I am old-fashioned enough to think that they have abundance of such "sugar plums," and like our public school system, the intention may be good, but the result not always satisfactory. Has our employment on the farm a tendency to coarsen or harden our sensibilities? Far from it. The care and attention bestowed on our "dumb friends," has a tendency to enlarge our sympathies and quicken our observation. There can be no monotony in our labor; everything around us is daily teaching us some useful lesson of patience and trust. Let us be proud of our profession, ready to forward any useful project—not necessarily following every old beaten rut. A healthy dissatisfaction lies at the root of all progress.

Farmers regard it as a misfortune when the products of their industry are selling at low figures. So it usually is, and will always continue to be the case so long as business is conducted so abnormally as it has hitherto been. Farmers are not the only people who complain of low prices. Workingmen grumble at the low price of labor; business men at the depressed state of their wares, and officials at the meagreness of their salaries. Cheap farm products mean cheap everything, and a man's profits may remain the same if the prices of his purchases and sales increase or diminish in the same proportion. It is the margin that makes the money, not the high or the low prices of the goods. The cause of failures and crashes is that the goods have been manufactured or purchased in booming times and sold in times when people have recovered their senses—the former being the time of high hope, the latter the time of depressed spirits, and these periods occur almost as regularly as the revolutions of the spheres. High prices all round are of no more benefit to the individual or to the community, than giving each competitor in a race a start of five yards. The time of general prosperity and contentment to all parties is when the articles which enter into the production of the commodity is cheap, when the commodity itself is cheap, when its means of distribution are cheap, and the margins are sufficiently wide to insure confidence and stability.

What a Farmer's Club Did.

In the city of Rochester, N. Y., there is a strong organization called the Grocers' Association which advances its interests, and consequently, as it thinks, also those of the city, by bringing pressure on the city council to induce it to pass ordinances regulating the sale of products by farmers on the market.

Before the draft of the ordinance reached the city council, in which body it would probably have passed, it came under the notice of the Western New York Farmer's Club at one of their regular meetings.

Let farmers organize in every locality until the very name of Farmers' Club strikes terror into the conscience of rascals and drives them into unorganized communities.

Top dressing wheat may be continued after the wheat is sown and the plants appear above the surface. Wagons with wide tires should be used so as not to cut the mellow soil into deep ruts.

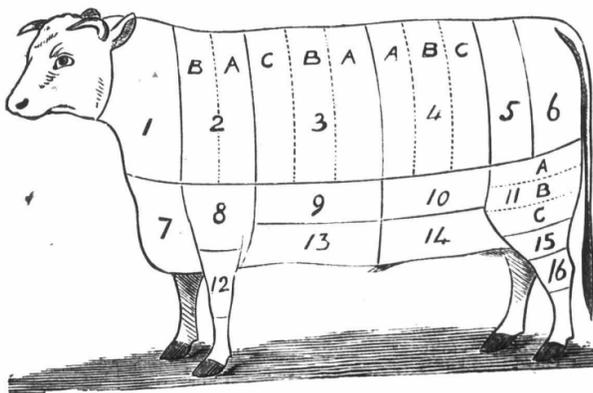
On some farms it is difficult to say which has the greatest influence in diminishing the flow of milk, the flies in summer or the rough conduct of the cow's attendant in winter.

Stock.

How the Butcher Judges Steers.

In our last issue we gave the standard points of steers intended for the stall, from the feeder's point of view. Herewith we present an outline illustration of a model steer ready for the block, showing the butcher's cuts, with names and average prices for several years subjoined.

Although the block is the crucial test upon which all judging converges, yet the vocations of the feeder and the butcher are quite distinct. They judge by different sets of points, but if the feeder also incorporates the butcher's standards into his judging, he displays a complete knowledge of his art.



MODEL STEER, SHOWING BUTCHER'S CUTS.

With regard to the quality of the flesh the feeder requires as keen a perception as the butcher. Naturally, the butcher always understands his market, but the feeder far too frequently neglects to ascertain the tastes and whereabouts of his consumers.

There is one important point which cannot be overlooked by either feeder or butcher, viz., the proportion of waste. If the store animal is long-legged and coarse boned, the probabilities are that its market value will be depreciated on account of the larger percentage of offal.

markets be regarded as little better than waste when badly developed; otherwise it usually brings the price mentioned in the list below, so that the feeder cannot be arbitrarily governed by the highest priced bits.

The breeder is controlled by the word "selection." If he wishes to produce a model steer, such as is outlined by the accompanying cut, he must select such breeding animals as come, as near as can be procurable, up to this standard, especially rejecting such sires and dams as possess the same weak points.

Table listing various cuts of meat and their prices in cents. Includes items like Neck, 1st Chuck Cut, 2nd Chuck Cut, 1st Rib Cut, Centre Rib Cut, 3rd Rib Cut, Wing Cut, Sirloin Roast, Centre Cut with Tenderloin, Sirloin Steak, Rump, Brisket, Shoulder Roast, Plate, Upper Flank, Round or Buttock (A, B, C), Fore Shank, Navel, Lower Flank, Hoek, and Hind Shank.

History of the Thoroughbred Horse.

The American thoroughbred horse is the direct descendant of the English race horse. When a horseman speaks of a thoroughbred he means just this and nothing more, viz., that the horse's pedigree runs without variation, direct to the noted horses of the English turf.

He also believed that during the reign of Alfred the blood of German was mingled with that of the Oriental, and from this cross sprung the first running horses of England. Still later a few Spanish horses were introduced, as were also some Flanders.

At recent public sales of Shorthorn cows and heifers held in different part of the U. S., the average prices amounted to \$128, and Herefords averaged \$500.

A General Purpose Horse.

The existing demand, or rather sensation, for heavy draught horses must end somewhere. We must soon open our eyes to the fact that we are going to an extreme which we should be prepared to counteract. We are breeding too much bone, slothfulness and fat, and too little muscle and courage. Size does not always give weight, nor is it necessarily the embodiment of strength. A large bone may be porous and destitute of strength, and a fleshy horse is more an indication of sluggishness than of spirit. To come down to the point of real practical usefulness, the horse that can produce the most labor on the least food is the most profitable. In one important particular the horse is like a piece of machinery; the power by the speed gives the efficiency, size being merely a side issue. These are the points to which economical horse breeding and feeding must finally converge.

The growing demand for mules and fast walking horses is the straw which tells which way the wind blows. It simply means the lack of stamina and speed in our working horses. This is very easily accounted for. Our highly bred draught horses have been nursed too tenderly on account of the vast amount of capital sunk in them, and have consequently become weakened in spirit, constitution, and endurance, and being put to spiritless mares, the offspring is of such a character as would lead to cries for the mule and the racer. Times, even on the farm, are getting faster and faster, and farmers need more "go."

We wish particularly to call the attention of the average farmer to the special facilities which he possesses for raising the class of horses in demand. Many farmers labor under the impression that the rearing of horses for the various markets of the world should be undertaken only by special breeders. Specialists can only successfully operate under boom prices and when stamina is at a discount in the market. Both stallions and mares require the wholesome exercise of the varied employments on the farm in order to produce the highest possibilities. To the farmer this is a double source of profit, as it gives endurance to the animal and its labor brings in direct pecuniary returns. Neither of these advantages are attainable by the specialist. The demand mentioned has its origin in the States, so that the next question for us to consider is, Can we compete with our neighbors in the production of horses of the mule-racer combination? We possess one advantage which will drive them out of competition with us. In the Union, where corn is the staple food for all classes of domestic animals, the farmers persist in feeding it even after they become aware that this product is detrimental to muscular development. Corn is a fat and heat producing food, having a deficiency of minerals, and this heat does not infuse that warmth and rapid flow of blood which is so highly necessary for activity; in fact it is fatal to this effect. Feeding is one of the most essential factors in the production of the desired qualities, and our grain productions being of a varied character, our farmers could scarcely make a mistake if they tried. We admit that our average farmer is not in a position to go extensively into the business; if he places two horses on the market every year he does well. He is not

circumstanced to go into the breeding of racers, and he should be the last man to establish a race course. Constitution, constant work, and appropriate diet are the producers of warm blood, which gives spirit and vitality for the support of muscular action and development. A horse built on these principles is the general purpose horse for the farm, and is the most profitable and satisfactory for all consumers of horse power. He will possess strength, endurance, and action, and will keep mettled for a much longer period than those built on the sandy foundation.

TRY A DIP OF THOROUGHBRED BLOOD.

There are numerous methods of attaining these ends, but into our larger Clydesdale, Percheron, or Shire grade mares, how would it do to infuse a dip of thoroughbred blood? The famous old English thoroughbred, of which we present an illustration on page 321, cannot fail to be of significance in the consideration of this vital question. The most modern conception of a horse is that his feet are his base, and as the English thoroughbred possesses all the soundness and qualities of foot which have been so glowingly accredited to the Shire, and stands between 15 and 17 hands high he may be said to have both the hands and the feet necessary to recommend him to public favor. He was built specially for fleetness, courage, and endurance, and has also the following points to recommend him:—Chest deep and wide, being very superiorly marked, indicating a powerful constitution; body round, flanks and belly light; ears fine; eyes prominent; nostrils wide; lips thin and small; wide between jaws; neck long and fine, with thin and close mane; withers very thin and high; back low at withers, then straight to haunches; long from haunches to turn of rump; long and thin from turn of rump to tip of hock; great elasticity of motion, especially in forcing himself forward; buttocks well apart; legs, below hock and knee, small, with prominent cords; tail fine-haired, hair sometimes wavy; hair on legs fine, no fetlock tufts; hoof small and cupped; color brown, bay or chestnut; hair on body thin and silky.

Feeding Cattle.

It has been claimed that the methods of breeding and feeding cattle have been so much improved of late years that the period of maturity has been hastened more than one half. That is, a sheep or a pig which matured at 3 years, or a steer which was ready for slaughter at 5 years formerly, is now ready for the butcher at less than half these ages. Pigs are said to be ready for pork at 9 months, wethers for mutton at 20 months, and a 2-year-old steer to be ready for the block at that age. It is to be feared that these claims are greater than can be justly allowed. No doubt some animals by excessive forcing are made as fat and reach as heavy a weight at these premature ages as others used to do in twice the time, but it is a question if this forcing is profitable either to the feeder or the consumer. On the one hand, the animal is forced to consume as much food in two years as was formerly spread over four years, so that on the whole there is no gain but in time, while on the other hand the consumer has very immature or half-grown meat, which is devoid of flavor and nutritive quality, and the meat is overloaded with fat, which is a waste.

Physiologically, it is a matter of doubt if the muscular growth of an animal can really be hastened by any process of feeding. Fat can be produced, no doubt, but fat is a diseased condition of the system, and an excessively fat animal would soon die under continued feeding. But if we examine the meat of one of these young overgrown animals, it is found to be in very great disproportion to the fat. It is quite common, for instance, for the 9-months old pigs which weigh 300 pounds to be turned wholly into the lard kettle because the few pounds of flesh under the fat is not saleable or useful as food. On the whole, it certainly does appear as if we had carried the forcing system of feeding to an unprofitable extreme. Every year the losses of swine by disorders clearly traceable to over-feeding increase in number, and although we are told that the dreaded diseases have been overcome and have disappeared, yet the feeding season no sooner begins again than the hog cholera breaks out as plentiful as at any time before. It is a question if we can safely follow English precedents in this respect of forcing animals to prematurity. Certainly if we are to suffer the pains and penalties, the diseases and losses among our live stock which English farmers are complaining of, it is very clear that we cannot afford to do it, and had better make haste more slowly. —[N. Y. Times.

The Liverpool Journal of Commerce draws attention to the precautions necessary to prevent the introduction of disease into British herds and flocks from the United States, and points out the incompetency of biased officials in the regulation of the traffic. It cites a case in which one meat inspector seized the carcass of a bullock from the steamer *Norseman*, and would have passed it as sound had he kept within his functions of judging by appearance, but asserted that the animal had suffered from Texas fever. This evidence was elicited before the magistrate at Birkenhead, and when the witness was cross-examined he confessed his inability to judge any kind of cattle disease from the viscera, thereby confessing his incompetence for the position he occupies. The Journal then concludes as follows:—"Mr. Moore, the Privy Council inspector at this port, to whom the seizure of the meat in question is attributed, was nearly destroying the cattle trade from the Dominion of Canada in August last, when he detained several cargoes of Canadian cattle. The High Commissioner for the Dominion of Canada and the trade, however, were represented, and the leading veterinary authorities from all parts of the kingdom were called in, when Mr. Moore had to admit that his opinion was not based upon fact. It is rather curious to remark that while the cattle trade interests of the Dominion of Canada were so well taken care of, the United States have not thought fit to be represented in cases such as that of yesterday."

Sir Richard Temple, one of the hundred scientists who made a tour of inspection through the Canadian Northwest, in his recent lecture delivered in Winnipeg, exclaims with reference to cattle disease in the United States: "For Heaven's sake take precautions to prevent its importation. I speak freely on the subject, because we in England failed to prevent the importation of diseased cattle, and the losses in consequence have been incalculable."

Veterinary.

Accidents.

FRACTURES.

There are no accidents to which the domestic animal is more liable than fractures. As these cases demand prompt action on the part of the farmer, before a veterinary surgeon can be called, there is no part of veterinary practice with which the farmer should be more familiar.

Fractures are classified (1) according to the direction in which the bone is broken, and (2) according to the severity of the injury and its relation to the soft structures. When the bone is broken without injury to these structures, the fracture is said to be simple; compound, when an open wound communicates with the fractured bone; comminuted, when the bone is broken into several fragments; complicated, when the adjacent structures are severely injured, such as when the blood vessels are lacerated or the tissues seriously contused. The first thing to be done is to ascertain which one or more of the foregoing conditions exists, and the treatment must be regulated accordingly. This is most easily determined by the extent of the lameness, the suddenness with which it is manifested, the magnitude of the deformity, and the nature of the unnatural movements of the part. In some cases, especially when the limb is but slightly splintered or fractured longitudinally, there is but little manifestation of lameness, but such injuries require close inspection and treatment, as softening is likely to set in.

Shortly after the accident, a transparent fluid called lymph begins to exude from the fractured bone. After a time this matter becomes dense and firm, and it is then called a callous. This is the reparative material which brings about the union of the bones, causing the fracture to be healed. The breach thus repaired is brought about in one of two methods: (1) The callous may ensheath the ends of the bones, as when a broken rod is mended by means of a ring surrounding the detached ends; and (2) the reparative matter gathers on the ends of the bones glueing them together. The ensheathing method is the more common. After a while, the time varying according to circumstances, these accumulated deposits become changed into regular bone, and then the fracture may be regarded as healed. If the process of repair is arrested before ossification, or chance to bone, takes place, a false joint may be formed.

Very soon after the occurrence of the fracture, irritation and swelling take place, so that it is of great consequence to perform reduction at the very earliest moment, else the increasing irritation and swelling will impede the work of adjustment. After the bones are brought into their natural position, put on splints and bandages; and in severe cases, put the patient into a sling. In compound fractures the danger and difficulty in treatment are greatly increased. Violent inflammation and fever set in, terminating in suppuration (formation of pus), and gangrene. The liability of this danger may be obviated by first treating the wound, thus converting a compound fracture into a simple one.

LUXATIONS.

Also called dislocations, are another result of accident, which required prompt attention, but do not occur so frequently as fractures. The most common form is luxation of the patella, a small bone situated at the anterior and lower part of the femur, or thigh bone. It is most apt to occur in young horses. The patella always slips to the outside, the internal lateral ligament being partially or wholly ruptured, possibly sometimes only relaxed, so that the dislocation may be complete or partial. When partial the patella slips in and out with a clucking noise while the patient is walking. When complete the limb is stretched backwards, and the patient is unable to bend it, the leverage being destroyed. This condition is treated by using forcible extension, placing a rope around the foot and fastening it around the neck, forcing the foot to remain in a forward position for several hours. A high-toed shoe should be put on, and a blister applied around the joint.

Dislocation of the cervical vertebrae (bones of the neck) may occur without fracture. Placing the foot over the halter in the stable is a fruitful cause; also throwing. In this form of accident the neck is bent laterally, and a bony protuberance is observed on the convex side. There is no remedy for this condition, and death usually follows, sometimes instantaneously.

This condition is to be distinguished from twisting or wry neck, which may occur from various causes without dislocation. Anything causing a loss of function of the muscles of one side of the neck, such as rheumatism, bruising or stretching of the muscles, casting in the stable, etc., may bring it about.

REMEDIES.—Take a piece of canvas and suspend it to the ceiling with ropes in the form of a sling; place the horse's head thereon, and allow it to rest until he is able to hold it up without support. Apply warm fomentations; rub the part well with the hands; then use a mild stimulating liniment. A pitch plaster has also proved effective.

In cases of severe fractures and luxations, where the usefulness of the animal becomes endangered for life, regard for circumstances must be had. If it is a working animal and not very valuable, it will not pay to indulge in costly treatment; but if it is still valuable for breeding, a considerable outlay incurred in its restoration will be repaid.

The Jersey fever has subsided in the United States. At recent auction sales Jersey cows sold at about the same price as ordinary "scrubs." This shock has had a very depressing effect on Jersey worshippers. It is secretly whispered in live-stock circles that another breed, either a relative of the Shorthorn, or the Shorthorn under another name, is next to be boomed to the front; but this profound secret is, of course, to be strictly confined to the band of live stock speculators.

Live stock crazes, like cattle diseases, still keep bursting out in one location after another. Lord Wilton, the name of a Hereford bull, 11 years old, from the herd of the late T. J. Cardine, England, sold at public auction for the sum of 3,800 guineas, or close on \$20,000. If we were allowed to analyze this sum we should say that \$200 were paid for the bull, \$7,800 for the pedigree, and \$12,000 for the craze—total, \$20,000.

The Apiary.

Wintering.

As all our bees should by this time have sufficient sealed stores to carry them through till spring, and should be snugly cushioned down, we must decide how we shall winter them, and at once make preparations for packing, housing or cellaring, as the case may be. The beginner especially is perplexed by various methods advocated by his neighbors, and is at a loss to know which to adopt; perhaps each of half a dozen ways seems to be equally successful. Doubtless they all embrace the same fundamental principle, though apparently quite different. If we know the sound, scientific and practically correct principle, and some of the simplest ways of carrying it out, we should easily decide which of them is, for us, the most convenient.

To winter successfully, bees require—1st, sufficient stores; the right amount is 25 lbs. or over. 2nd, to be kept dry; dry cold does not kill bees, but they will die if the moisture among them becomes frozen and remains so for a long enough time for them to starve. Damp chills bees, and brings on diarrhea (commonly called "dysentery") just as it does with higher animals. It also sours the honey, which itself causes disease. It checks the natural animal heat. If bees are dry they can cluster closely and keep warm; not so if damp. 3rd, fresh air; this applies to all animals, and is well understood. 4th, an even temperature. If bees are warm they will spread their cluster, and when cold will contract it again, and so on. This requires much motion; honey must be eaten to supply the extra animal waste thus caused. This is not only expensive, but is a fruitful source of disease, as the bees after consuming such large quantities of honey are unable, on account of the cold, to fly and free their over-loaded bowels, thus producing dysentery in perhaps five cases out of six. The motion causes the generation of more or less moisture, which may be condensed before it has time to escape and freeze about them. 5th, warmth. This sours much honey, since the bees do not need to eat to keep up animal heat if they are sufficiently warm without it. If they have the required heat surrounding them they can move freely from comb to comb for food, and be in no danger of starving; while if cold, and be in no danger of combs for some time after the honey they contained is used. If warm enough they will commence breeding early, and the brood will not be chilled; the colony will be strong at honey flow. On the other hand, if too warm they will consume too much honey, fly before they should and be lost; and will breed too early and too fast, and much of this brood will be chilled in the spring. The proper temperature for the surrounding air is 40° to 45° Fahrenheit.

All these requirements may be fully met by acting upon the following principle, viz:—Draw off superfluous moisture; ventilate; keep the proper temperature.

The more nearly this principle can be carried out the better will be our success. I give the four most approved ways, and prefer them in the order named:—In the bee house, in the cellar, in the packed clamp, in the packed hive.

THE BEE HOUSE.—As those who have a bee house are sufficiently posted, and as it is too late to build one for this winter, I will not describe it now.

THE CELLAR.—This must be dry, and should be so arranged as to be easily ventilated, and so that the temperature may be kept about 40° to 45° Fahr. from the middle of November till the middle of April. The bees should be kept on their summer stands cushioned down, and have a small entrance to their hive till they have clustered for winter and all chance of very warm weather is over. Choose a sunshiny day to "carry in." Mark each hive to match its own stand so that it may be put into its own place when brought out again; remove the cover and replace the cushion by a thin factory cotton quilt, which will allow of the escape of the moisture through it. Between the frames and quilt have two or three corn cobs or pieces of stick to form passages for the bees over the combs. Open the entrance wide, or if the bottom board is loose, remove it (this is much the better plan) for ventilation. Place the hive upon racks made of two 2x4 scantlings set across the cellar a foot above the floor, and so spaced that one will come near the front and the other near the back of the hive. If other racks are required let them be sufficiently high to allow a hive to be conveniently placed upon the one below. Space the hives upon the racks so that one may be removed without disturbing others. Regulate the temperature of your cellar carefully.

THE CLAMP.—This is merely a long box with slanting top to shed the rain. It may be made any length to suit convenience, and should be large enough to allow a space of six inches below, before, behind, and at each end of the row of hives within it, these having between them a space of two inches; above the space should be eight inches at its shallowest point. The hives should all face the same way; I prefer the south. A covered passage from the hive entrance to the outside of the clamp should be constructed, half an inch high by the width of the entrance itself. A board should be arranged to break the wind and prevent the sun shining full upon the opening.

To clamp the bees, commence at once, and move them a little each day towards where they are to be wintered; when in position leave them undisturbed two or three days, so that they may mark their position well. Then put them into the box and pack all but the space above with straw chaff or sawdust (sawdust is best if it can be obtained cheaply, but must be dry). Remove upper and half stories and cover, leaving only the cushions on; put the roof on the clamp. After the bees have clustered for winter, carefully remove cushion, and arrange the frames so that the cluster is all at one side, or front end, of the hive. Place corn cobs or sticks across the frames, then a light factory cotton quilt, and then fill up with dry straw to absorb the moisture. Leave entrance full width for ventilation.

THE PACKED HIVE.—In this arrange the cluster as in the clamp, and use the passages over the frames. Use cushion instead of quilt and straw, and protect entrance from sun and wind.

Correspondence.

NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post-Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. If an answer is specially requested by mail, a stamp must be enclosed. Unless of general interest, no questions will be answered through the *Advocate*, as our space is very limited. 3. Do not expect anonymous communications to be noticed. 4. Matter for publication should be marked "Printers' MS." on the cover, the ends being open, in which case the postage will only be 1c. per 4 ounces. 5. Non-subscribers should not expect their communications to be noticed. 6. No questions will be answered except those pertaining purely to agriculture or agricultural matters.

Voluntary correspondence containing useful and seasonable information solicited, and if suitable, will be liberally paid for. No notice taken of anonymous correspondence. We do not return rejected communications.

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

SIR,—I have just had the pleasure of attending two exhibitions in the North-west, held at Grenfell and Indian Head, and I must say that both reflect great credit on the inhabitants in this section. The exhibit of horses, cattle, sheep, pigs and poultry was large, some being only imported, while the majority were purchased direct from the field. The field produce was good, there being excellent samples of wheat, oats, barley, peas and flax. There was also a very large exhibit of dairy and garden produce. A little over two years ago this was a vast prairie without a house to be seen, now the land is pretty nearly all taken up with good men who are taking to farming in earnest. The weather has been delightful, enabling the farmers to push their work rapidly forward. Is there any variety of wheat earlier than the Red Fife?
GRENFELL, N. W. T. J. W.

[There is so little difference in the time of ripening of the best varieties of spring wheat that no safe advice can be given.]

SIR,—Our fair was a grand success. We had fine weather, and everything was as pleasant as we could wish. There were about 1,400 entries, and over 3,000 people were present. It was remarked that it was the best show that we ever had. Our receipts from every source were \$300, and we received \$140 government money. We have a membership of 204, and we paid in prizes \$300. We have added more to our grounds, and made a good many improvements in other ways, which cost us a large sum. Our Board of Directors are determined on keeping our fair up to the standard it has attained, for we think we can compare favorably with the Industrial at Toronto in the exhibits of horses, cattle, fruits and vegetables.
AMELIASBURG, ONT. J. R. W.

SIR,—What is the cause of reasty pork?
CONSTANCE, ONT. N. S. A.
[It is caused by too high a temperature and a deficiency of brine.]

SIR,—When reading the able prize essay in the columns of the *Advocate* on the subject of clover seed, the idea struck me that the writer has scarcely laid sufficient stress on the necessity of preserving that very useful insect, the bumble bee. We have no other insect with proboscis long enough to extract the honey from the red clover blooms, and consequently all our red clover blooms must be fertilized exclusively by the bumble bee. Farmers, boys are more numerous every year, and they should be strictly enjoined not to destroy the nests of the bumble bee, which they are very apt to do for the sake of the honey. The farmers in New Zealand import all their clover seed, as they have no bumble bees there. Some attempts have been made to naturalize them, but hitherto with very partial success.
PRESQU' ISLE, ONT. SARAWAK.

SIR,—Will you please publish in your next issue the law in reference to ditching; how deep a man is compelled to dig to give an outlet to a neighbor, and the law in full concerning the same.
WINCHELSEA. F. G.

[The following, clause 3, 46 Vic. (1883), chap 27, covers your question:—"In case of the owners of land, whether immediately adjoining or not, which would be benefited by making a ditch or drain, or by deepening or widening a ditch or drain already made in a natural water course, or by making, deepening or widening a ditch or drain for the purpose of taking off surplus water, or to enable the owners or occupiers thereof the better to cultivate or use the same, such several owners shall open and make, deepen or widen, a just and fair proportion of such ditch or drain according to their several interests in the construction of the same; and such ditches or drains shall be kept and maintained so open, deepened or widened, by the said owners respectively and their successors in such ownership in such proportions as they

have been so opened, deepened or widened, unless in consequence of altered circumstances, the engineer, hereinafter named, otherwise direct, which he is hereby empowered to do upon application of any party interested, in the same form and manner as is hereinafter prescribed in respect of the original opening, deepening or widening; and in case the engineer finds no good reason for such application, all costs caused thereby shall be borne by the applicant, and shall be collected as in this Act provided." The rest of the Act refers mostly to the duties of the engineer and legal modes of procedure, which are unimportant matters of detail.]

SIR,—If not troubling you too much I should be glad to know of the most economical food for rearing young calves without milk. In England there are several "calf spices" and foods made, which answer admirably, even from the very first; but I am not aware of anything of the kind made in Canada. Would a well-boiled gruel of oat meal or corn meal, with the addition of crushed linseed, do? If so, in what proportion should it be given, starting say with a calf at two or three days old? I intend rearing a large number of calves next season and cannot get milk for them.
W. H. B.

BIRD'S HILL, MANITOBA.

[Many calves are reared in Canada without milk, but whey is generally used as a basis of the ration. The substitutes used in England are compounds of the same constituents that are found in milk by analysis, and they seem to be growing rapidly in public favor. There are no substitutes advertised in Canada or the United States, there being as yet very little demand for them. Calves have been successfully raised on hay tea, made by steeping good early cut hay in hot water. Bean soup has also proved a success, made by boiling the beans until they are quite soft, then mixing with water in the proportion of one pint of beans to two gallons of water; but the change to any of these diets should not be suddenly introduced. A little experience here will be your best guide, regard being had to the state of the calf's bowels, its appetite and general thriftiness. The bowels may be lax by putting small quantities of oil meal into the ration, in which case small portions of oat and corn meal should also be added, which should be scalded so as to prevent scouring. You may now gradually introduce an exclusive diet of your oat or corn meal with linseed. The calf will now be able to eat small quantities of grass, and the other food may be given in the following proportions:—3 parts corn meal to one part linseed meal; or 4 parts oat meal to one part linseed meal. If any of these rations is too laxative, pea or bean meal may be substituted for the linseed in slightly larger quantities, or the substitution may be made only in part. This is a vast subject and we shall treat of it more fully when the calf season comes round.]

SIR,—Is there any difference in the thoroughbreds with regard to the quality of their beef?
LONDON, ONT. A. J. L.

[Of the beefing breeds, namely, the Galloway, the Polled Angus, the Hereford and the Shorthorn, their quality is in the order named.]

We have to thank many of our subscribers for their promptness in renewing their subscriptions, and for their compliments contained in their letters as to the merits of the *Advocate*. We hope none of our subscribers will stoop to flatter us, but will state their conscientious convictions, favorable or unfavorable. If we through oversight have overlooked anything that would be of use to the plain, practical farmer, we want to be condemned for it, our object being to make the *Advocate* as practical and useful as possible. It must be remembered that our columns are limited, so that many articles must be cut shorter than would sometimes be desirable. In all the letters which we have received during the past few months, we have found no condemnatory remarks. The following letter which we have just received is a fair specimen of those which we are receiving:—"Inclosed you will find my subscription for next year's *Advocate*. I have obtained more valuable and reliable information from it than from any other paper which I take. J. J. BOWMANVILLE, ONT." During the past few days we have received an unusual number of letters containing questions, which came too late for our November issue. Correspondents will please remember that letters run the risk of being answered unless received not later than the 20th of the month. Some questions, of course, must of necessity be late, and they demand an immediate answer, in which case we usually answer by postal card, but our correspondents should not expect us to do so unless a card is inclosed.

The Household.

Taking Cold.

BY MARY A. ALLEN, M. D.

"I can't imagine how I took such a cold. I am very careful, I always bundle up well, and wear rubbers when I go out."

"You were at a dinner-party day before yesterday, were you not?"

"Yes, but I was not exposed to a draft."

"Did you have a good time?"

"I never enjoyed a dinner better. I don't know when I have eaten so heartily. Everything was so nice. Such a variety of rich food! I half-expected I should be sick, but it did not seem to hurt me at all."

"What would you say if I were to suggest that your cold is a result of your big dinner?"

"I should say, 'What an absurd idea! How could a dinner give one a cold?'"

"Then you probably would not believe me if I were to tell you that a large proportion of colds are taken at the dinner-table. Did you never notice how very prevalent colds are just after Thanksgiving, Christmas, and New Year's? And people say it is the epizootic which is epidemic, not imagining that the proximate cause was the preceding epidemic of big dinners."

"But how can eating give one a cold?"

"What is a cold? It is internal congestion, an unbalancing of the circulation. We generally believe it to be caused by the driving of the blood from the surface of the body by exposure to cold, to some internal organ, and so it often is. But calling the blood away from the surface to an internal organ, may have practically the same effect. In perfect health, an equilibrium in the circulation of the blood is maintained, no organ having more than its due share. In disease, this equilibrium is disturbed. In health, the whole volume of blood in the body passes through the heart in about one minute. If, from any cause, it does not circulate with this rapidity, but collects in an organ, we have a partial stagnation, which we term congestion. This superabundance of blood in one organ causes a decrease of blood in other organs. All cavities of the body which communicate with the outer air are lined with a thin skin, called the mucous membrane. It secretes a thin, viscid substance which keeps the membrane moist, and in good working order. When this mucous membrane becomes congested, we have what is called a catarrhal condition. The capillary blood-vessels of the membrane become distended with blood, and the result is an increased secretion of mucus. This manifests itself by a 'running' of the nose and eyes, or by an expectoration of mucus from the bronchial tubes. The mucous membrane of the eyes, ears, nose, lungs, and alimentary tract is continuous, so that an affection of one part can extend through all the rest. If, then, we call an unusual amount of blood to the stomach, to aid in the digestion of an undue quantity of food, we produce a congestion of the mucous membrane of the stomach, which, after a time, may extend to the nasal passages, or to the bronchial tubes, producing the condition which we recognize as 'a cold.' The trouble is primarily in the stomach, secondarily in the respiratory organs. This manner of 'taking cold' is a result of over-eating, but not necessarily of glut-

tony. Over-eating is a relative term. An ordinary meal for a laboring man would be over-eating for a man of sedentary habits. A quantity of food that would be justifiable under ordinary conditions, would, in a state of fatigue, be sufficient to cause a congestion of the stomach, and 'a cold' would be the result. Not knowing this fact, many people do themselves the great wrong of eating when very tired, and suffer the consequences, although perhaps not recognizing their pains as the effects of a violation of the law of stomachs.

"Sore throats, which are usually ascribed to conditions of the lungs, in nine cases out of ten are primarily from disturbed conditions of the stomach. The throat or back part of the pharynx, is more intimately connected with the stomach than with the lungs. The nasal passages connect directly with the pharynx, and nasal catarrh is usually a result of disturbed digestion. Inflamed eyes, and itching of the eye-lids, can often be traced to an irritated condition of the stomach. Close watching of the facts in the case will often verify this statement beyond a doubt. Persons who are observant often find that a hearty supper will cause them to awaken the next morning with a dry, sore throat, and a bad breath, both indicative of irritated stomach.

"In children who are troubled with nasal catarrh, or weak eyes, there will usually be found other and more direct symptoms of a like catarrhal state of the alimentary canal, torpidity of the bowels, alternating, perhaps, with diarrhea, a coated tongue, a peculiarly bad breath, which an educated nose recognizes as accompanied with catarrh of the stomach.

"O, don't worry over your boy's having catarrh," said one mother to another. "If he don't have that he'll have something else." I wonder what that mother would have thought if she had heard some one say, "Don't worry about your child's lying. If he don't do that he'll probably steal." The argument is as sound in the one case as in the other. If your child has catarrh it is an evidence that something is wrong in the physical organism, just as lying is an evidence that something is wrong in the moral nature. In both cases one should seek the cause and endeavor to remove it. A person who takes cold easily has a weak digestion, an irritable condition of stomach, and, sympathetically, of mucous membrane in other parts of the body. The circulation is easily unbalanced, the blood having a tendency to leave the surface and to stagnate in internal organs. This condition is to be remedied, not by local medication, not by 'catarrh snuffs,' or 'pectoral balsams;' but by a careful study of the laws of health, and obedience to them; to learn when, and what, and how to eat; how to dress, exercise and rest; how to balance the circulation; these are the studies to be pursued if one wishes to learn how to avoid 'taking cold.'

At an hotel recently a man and woman of Milesian extraction took seats at the dinner-table. Directly afterwards a young couple seated themselves opposite, and the young man took a stalk of celery from the glass in the centre of the table and commenced eating it. The Irishwoman opposite looked at him a moment with an air of disgust, and then nudged her husband and said, in a stage-whisper, "Phelim, dear, d'ye mind the blackguard eating the bokay?"

Family Circle.

THE LAST STRAW.

"It is the last straw that breaks the camel's back," said Lucy, bursting into tears.

The pleasant sunbeams came peeping into the cool, stone-paved dairy, where pans of milk and cream were ranged in orderly array; great stone pots stood under the shelves, and a blue-painted churn was already placed on the table, for Mr. Bellenden was justly proud of his dairy. Not a chance guest came to the house but was invited down to see it; not a house-keeper in the neighborhood but had secretly envied its many conveniences and exquisite neatness.

"And it isn't the dairy alone," triumphantly remarked Matthew Bellenden. "And you may go through the house from cellar to garret, and you'll never find a speck of dust or a stain of rust. There never was such a house-keeper as my wife!"

Mrs. Bellenden was young, too, scarcely three-and-twenty. She had been delicately reared and quite ignorant of the machinery of domestic life, until she married Matthew Bellenden.

"It's very strange," Lucy had written to her father. "The farm is beautiful. You never saw such monstrous old elm trees, nor such superb roses, and the meadows are full of red clover, and the strawberries shine like jewels on the sunny hillsides. But nobody sketches or reads. I don't think there is a copy of Tennyson in the whole neighborhood, and no one ever heard of Dore or Millais. All they think of is how many dozens of eggs the hens lay, and how many cheese they can make in a year. And the woman who has a new receipt for homemade pie, or a new pattern for patchwork quilts, is the leader of society."

But presently young Mrs. Bellenden herself caught the fever and became a model housewife. Example is all powerful, and Lucy began to believe that the whole end and aim of life was domestic thrift, money saving and the treadmill of work.

"My dear," said Matthew, "if you thought you could get along without a servant this year, I might be able to afford that new reaper before the oat crop comes in."

"I'll try," said Lucy.

And after that she rose before daybreak, and worked later in the night than ever.

"What is the matter with your hands, Lucy?" her husband asked one day. "They are not so white and beautiful as they used to be."

Lucy colored as she glanced down at the members in question.

"I suppose it is making fires," she said.

And then she took to wearing kid gloves at her sweeping and dusting and digging out of ashes.

"My coat is getting shabby," Matthew one day remarked.

"Why don't you buy another one?" asked his wife.

Matthew gave a short laugh.

"What do you think Mrs. Higgins has done?" said he.

"She ripped up her husband's old suit and cut a pattern by it, and made a new one, and saved twenty dollars."

"I could do that," said Lucy, with sparkling eyes.

"I will try it."

"You can do anything, my dear!" said Mr. Bellenden, admiringly.

And Lucy felt that she had her rich reward.

Company began to come as soon as nice weather set in. All the affectionate relations of Mr. Bellenden soon discovered that the farm house was cool and shady, that Lucy's cooking was excellent, and that the bedrooms were neatness itself.

Some of them were even good enough to invite their relations as well; and so the house was full from April to December with visitors who brought their carpet bags and valises with that faith in human hospitality which is one of life's best gifts.

Mrs. Bellenden's fame went abroad among the Dorcases of the neighborhood in the matter of butter and cheese; she took prizes in the domestic departments of all the agricultural fairs, and the adjoining housewives took so trouble to make things that they could borrow of Mrs. Bellenden, "just as well as not."

And one day, when poor Lucy, under the blighting influence of a horrible sick headache, was endeavoring to strain three or four gallons of milk into the shining pans, the news arrived that her husband's Uncle Paul was coming to the farm.

"Another guest!" said Lucy, despairingly.

And then she uttered the proverb that heads our sketch.

"Oh, it's only Uncle Paul!" said Mr. Bellenden.

"Don't fret, Lucy. He's the most peaceable old man in the world. He'll make no more trouble than a cricket. John's wife thought she couldn't have him because she has no servant just now."

"Neither have I!" said Lucy, rebelliously.

"And Sarah don't like company."

"I am supposed to be fond of it!" observed Lucy, bitterly.

"And Reuben's girls don't want old folks staying there. It's too much trouble, they say," added Matthew.

Lucy bit her lip to keep back the words she might have uttered, and said, instead:

"Where is he to sleep? The Bedfords have the front bedroom, and your cousin Susie occupies the back, and the four Miss Pattersons sleep in the two garrets."

She might have added that she and her husband and the baby had slept in a hot little den opening from the kitchen for four weeks vainly expecting Mr. and Mrs. Bedford to depart, and that she had never yet had a chance to invite her father to the farm in pleasant weather.

But she was magnanimous and held her peace.

"Oh, you can find some place for him!" said her husband lightly. "There's the little room at the end of the hall where the spinning wheel is."

"But it isn't furnished!" pleaded Lucy.

"You can easily sew a carpet together out of one of

those old pieces from the Bedford room; and it's no trouble to put up a muslin curtain to the window and lift in a stump bedstead; and you can tack together a mattress and whitewash the ceiling, and—what's that, Lucy? The cows in the turnip field. Dear me! everything goes wrong if I step into the house for a moment. And really, Lucy, these things are your business, not mine!" he added irritably.

Lucy could not help laughing, all by herself, as her husband ran up the steps.

But it was a very sad little laugh, and soon changed into a sigh.

"I wonder," she said in a whisper, "if my poor tired-out ghost would haunt these stone pavements and scrubbed pavements if I were to die? I never heard of a ghost in a dairy before, but I should think that it might very easily be."

But the little bedroom was fitted up, for all that, as fresh as a rose, and Uncle Paul arrived, a dried-up, yellow-complexioned old man, with an old-fashioned cravat tied in many folds about his neck, and a broad-brimmed low-crowned hat and fine gold-headed cane.

He had a polite way of half a century ago, and Lucy thought she should like him very much, if she only had time to get acquainted with him.

But she was churning ten pounds of butter a day, and there was the baby, and the company, and the young chickens, and the baking to do.

She was almost too busy to sleep. But Uncle Paul was watching her quietly all the time.

He came out to the barn one day, where his nephew was putting a new handle on a sickle blade.

"Pretty busy times—eh, Uncle Paul?" said the farmer, scarcely taking the leisure to look up.

"Aye," absently answered the old man. "Did I tell you, Nephew Matthew, about the reason I left your Cousin Joseph's?"

"Not that I remember," said Matthew, breathing on the blade and polishing it with his silk handkerchief.

"Dorothy died—his wife."

"Oh, yes," said Matthew. "Low fever, wasn't it?"

"No," bluntly answered Uncle Paul. "It was hard work. That woman, Nephew Matthew, did the house-work for eight persons. Joe didn't even let her have a woman to help her with the washing and the ironing!"

"Must have been a regular-going brute," said Matthew, tightening the handle a little.

"All the sewing, too," added Uncle Paul—"the mending and making. She never went anywhere except to church. Joe didn't believe in women gadding about."

"The old savage!" said Matthew.

"She was fond of reading, but she never got any time for it," said Uncle Paul. "She rose before sundown and never lay down until eleven o'clock. It was hard work that killed that woman, and Joseph coolly declared that it was sheer laziness when she couldn't drag herself about any longer. And when she died he rolled up his eyes and called it the visitation of Providence."

"Why didn't the neighbors lynch him?" cried Matthew, fairly aroused to indignation at last.

Uncle Paul took off his glasses, wiped them vigorously, and looked his nephew hard in the face.

"Why don't the neighbors lynch you?" said he. Matthew dropped the sickle and stared.

"Nephew Matthew," said Uncle Paul, impressively, "thou art the man! Are you not doing the very same thing?"

"I?" gasped Matthew.

"Your wife is doing the work of a household of sixteen people," said Uncle Paul. "She is drudging as you could get no stranger to drudge. She is rising early and laying down late; she is offering up her life on the shrine of your farm and its requirements. I have seen her grow thin and pale even during the few days I have been here. I have seen her carry up Mrs. Bedford's breakfast daily to her room, because Bedford preferred to lie in bed; and cooking dainty dishes for Helen Patterson, because Helen wouldn't eat what the rest like. No galley-slave ever worked as she does. And you, with your farm hands—whose board only adds to her cares—and your array of labor-saving machinery, stand coolly by and see her commit slow suicide. Yes, Nephew Matthew, I think it is a case for lynching!"

Matthew had grown pale.

"I—I never thought of this," said Uncle Paul.

Matthew Bellenden rolled down his shirt sleeves, put on his coat and went into the house.

He told the Belfords and Pattersons that it was inconvenient to keep them any longer. He gave Cousin Susan to understand that her room was needed. He made arrangements to board out the farm hands, and engaged a stout dairy maid and a house-servant to wait on Lucy. And he telegraphed to her father to come to Silvan Bridge at once.

"She deserves a treat," he said. "He shall spend the summer with us."

And then he went to tell Lucy.

She had fainted among the buttercups, picking strawberries for tea. Poor little Lucy! The machinery had utterly refused to revolve any longer.

His heart grew cold within him.

"She will die," he thought, "and I shall have murdered her."

But she did not die. She recovered her strength by degrees.

"It is better than any medicine," she said, "to know that Matthew is thinking of me and for me."

And Uncle Paul—"the last straw," as she called him—had proved her salvation.

"I didn't want her to go as Joe's wife did," said Uncle Paul.

Examine your label and see when your subscription expires. You will save trouble, and often loss, by sending your money direct to this office, and by mailing the letter personally. We do not request agents to solicit subscriptions from old subscribers.

Minnie May's Department.

MY DEAR NIECES.—A little advice upon the subject of matrimony may not "come amiss" to some, at least. Many young people rush into these matters blindfolded, as 't were; they meet one month and are married the next, or some such foolish thing. Now, dear girls, my advice is simply, "look before you leap." Be not hasty to engage yourself, or to marry when engaged. Do not receive the attention of any man with whose reputation you are unacquainted.

Look at the footprints of time and see how many have been forced to spend their days in misery, through a hasty and thoughtless union. Remember your happiness in married life depends upon the kind of partner you get. One who is not a good lover will never be a good husband; and one who does not satisfy *before* the ring is on, never will *afterwards*. Know whether he will make you his friend or only his slave. Know whether he is unselfish enough to desire your happiness as well as his own. Marriage is a happy thing for woman when it gives her a companion, a lover, a protector; but the awful loneliness of a neglected wife is the most intolerable of sorrows.

Never marry a man to get rid of him, to oblige him, or to save him. A man who would go to destruction without you would quite as likely go with you and perhaps drag you along. Do not marry for a home or a living, when by taking care of your health you can be strong enough to earn your own living; and never let father, mother, or guardians sell you for money or position into bondage, tears, and life-long misery, which you alone must endure.

The counsel of a good mother is not to be ignored, for who is better suited to enter into the fullest sympathy with her child than the dear, tender, loving mother, who watched over you from infancy to childhood and from childhood to girlhood? With her you can trust all your secret thoughts, and her advice will be of inestimable value.

This month we offer a prize of a volume of Scott's Poems, beautifully bound, for the most concise sketch of "The Life and Works of Charles Dickens." All communications to be in by the 15th Dec.

MINNIE MAY.

WORK BASKET.

An article of great convenience in the household is a clothes-pin bag. It is made of heavy shirting, after the style of the school-bag, with a flap to button over, so that the pins will be protected from dust. Make a strap long enough to be worn over the neck, allowing the bag to hang down in front or on the side. Such a bag will be found very convenient when hanging out the clothes, and if worn when taking in the clothes, the pins can be easily cared for.

A length of double-fold white canton flannel placed under the table cloth will tend greatly to preserve the polish of a handsome dining table; and many people are pleased with the softness thus gained, whether they care for their table or not.

KNITTED SHIRTS are especially pretty for children, though suited as well for grown people; and the pattern is so simple that any one can follow it with satisfactory results. Either Saxony or fine Germantown yarn is the best for the purpose, and you will need two long bone or wooden needles about the size of an ordinary slate pencil. Cast on some multiple of nine, governing the number of stitches by the width of the shirt you wish to make; but they must be exactly divisible by nine, as that number is required for each figure in the pattern. A shirt for a baby can be knit in one breadth, but for larger sizes it is best to knit in two breadths, and then sew them together when finished. Cast on the number of stitches you will need, and for the first row seam 8 and knit 1; repeat this to the end of the needle; second row, seam 2 and knit 7, repeat as before clear across; 3rd row, seam 6 and knit 3, and repeat; 4th row, seam 4 and knit 5, and repeat; 5th row, seam as the 4th; 6th row, seam 6 and knit 3, and repeat; 7th row, seam 2 and knit 7, and repeat; 8th row, seam 8 and knit 1, and repeat. Knit by this pattern as deep as you like; then for the top, either rib, by knitting 3 stitches plain and seaming 3, or knit entirely plain. After sewing the breadths together, cut a shallow yoke of cotton or flannel and sew the shirt to it. If desired, the shirt can be sloped by narrowing to nearly fit the yoke when the plain or ribbed top is being made. For a child from one to two years old, instead of having band, knit the plain part long enough to come up to the shoulders, where it can be joined with a knitted or crocheted strip over the shoulder tip, and form a waist and shirt combined. Finish around the neck and arm-holes with narrow crochet; the ribbed knitting will be so elastic that the garment will require no opening in the back, but will easily slip over the head and adjust itself to the figure. Finish the bottom of the shirt with knitted or crocheted lace: the latter takes the least time.

A small mirror can be made very attractive by framing in white velvet about five inches deep, and paint sprays of flowers across the corners as if thrown carelessly upon them; or the spray painted partially on the glass itself, gives a very pretty effect.

Recipes.

CHICKEN JELLY.—Good for invalids. Select a lean chicken, cut the meat from the bones in small pieces, and with a sharp knife remove the skin and fat; then put the meat and bones in a porcelain kettle, with cold water enough to cover them. When it begins to boil, skim carefully and then let it simmer three hours. Strain and remove any particles of fat that may have escaped your notice. A piece of clean blotting paper laid on the top will absorb what fat cannot be taken off with a spoon. Return the piece to the kettle and boil down till it makes jelly when cold. Put a little salt in when the chicken is put on to boil if the patient can take salted food.

OYSTER ROAST.—Put one quart of oysters in a basin with their own liquor and let them boil three or four minutes; season with a little salt, pepper and a heaping spoonful of butter. Serve on buttered toast.

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quart of oysters in and let them boil with a little salt, onful of butter.

DUMPLINGS FOR CHICKEN POT-PIE OR SOUPS.
—One cup of buttermilk, one teaspoonful of soda and a pinch of salt, thickened with flour, moulded, cut and placed in a tin as for baking. Then place some small article of about one inch in thickness inside a steamer; upon this place the tin of biscuits and steam twenty or twenty-five minutes over the kettle of soup. When served the dumplings can be placed in the soup or pot-pie, and they will not fall, as so many boiled dumplings persist in doing.

It is often convenient to boil several kinds of vegetables in one kettle. For this purpose small bags made of coarse thin cloth are excellent. Make the bags the desired size and run a string through the top. Place each kind of vegetable in a separate bag, and tie the string around the handle of the kettle, so it can be easily drawn out. When the vegetables are cooked, hang them up for a few minutes to allow them to drain. When cooking a "boiled dinner" in winter the vegetables keep their shape and are superior in every way when cooked in these bags.

How to Cleanse Waste Pipes.

A simple, inexpensive method of clearing the waste pipes of washstands, bath-tubs, or kitchen, the stoppage of which often entails great expense, is said to be as follows:—Just before retiring at night pour into the pipe enough liquid potash lye of 36 degrees strength to fill the "trap," as it is called, or bent portion of the pipe just below the outlet. About a pint will suffice for a washstand, or a quart for a bath-tub or a kitchen-sink. Be sure that no water runs into it till next morning. During the night the lye will convert all the offal in the pipe into soft soap, and the first current of water in the morning will remove it entirely, and leave the pipe as clean as new. The so-called potash lye is not recommended for this purpose. The lye should be kept in heavy glass bottles or demijohns covered with wick work and plainly labelled; always under lock when not in use.

Venice By Moonlight.

Then I called a gondola, says some one, and went up the Grand Canal. The purple sky was brilliant with stars, and the light of a full moon lay wide over land and sea. As the night went on the past seemed to give back to the silent city something of its ancient glory; and from the walls of many a decaying palace blurred and dimmed by noonday, there started forth the fair, fresh colors which had adorned it when Venice was in her pride centuries ago. Once again I could think of her as the proud Bride of the Adriatic, begirt with all glorious raiment—with her mighty fleet sweeping over the southern seas—with her haughty nobles planting the Lion of St. Mark in conquered cities, a very queen omnipotent, reigning in regal majesty, enthroned upon her hundred isles.

But who, under the spell of moonlit Venice, will mourn over her pass history? What if her Doges, her Nobili, and her triumphs on land and sea are no more? The glory of the haughty Republic may be gone, but the Venice of the poet remains. Desdemona leans from her balcony to greet her dark-visaged lover,

and Jessica trips into a gondola with Lorenzo; whilst Shylock, thinking of his loans, passes from the market-place, "where merchants most do congregate," over the handsome marble arch known as the Ponti di Rialto.

The Venice of song cannot die; it is an enchanted land, and who is there who has not felt her spell as he drifted over her moonlit waters? By daylight, when rain is falling, a spirit of utter desolation, dreariness, and decay, seem to brood over the city, whose silence touches you like the dumb agony of one whose sorrow is too deep and hopeless for words; but night comes, and moonlight decks her with a thousand glories and breathes over her the softness of love, of beauty and of song.

Thanksgiving.

'Tis not the Sabbath, yet the constant clang Of busy shops has ceased, and daily toil. The ponderous hammer stops its heavy bang, And active commerce stays her race awhile.

Though grim November whistles through the trees, And chafes the spirit of the sullen river; Though flowers are dead and pale misfortune sees The onward march of winter with a shiver.

Though spring's delights and summer's wealth are past, And autumn's crown of gold has disappeared, Though gloomy winter rides upon the blast, And shakes the snowflakes from his heavy beard.

To-day the soul of beauty is abroad, And harmless mirth attends her higher lord. To-day the table groans beneath its load, While kindred spirits meet around the board.

To-day no wail from farmer's life ascends, But heavenly hosts in rapt attention hear The mighty song in which a nation blends Its glad thank-offerings for a fruitful year.

The gentle kine with double portion fed, Forget the sultry summer's drouth and stint; The patient plow horse meekly turns his head, And looks his thanks, the picture of content.

The watch-dog stays his warning bay To romp with children on the threshing floor. None are so sad but they must smile to-day, And to be hungry there are none so poor.

Attend, oh, Friend and Father of our race, While on the board with grateful hearts we bend, God of our life, inspire the humble grace, And peace and union to our counsel send.

To Clean Mica.

Wash the mica thoroughly with soap and water, then rinse with clean water before using chemicals of any kind. Rub the mica with powdered borax moistened with a little water or use a wet cloth. Baking soda can be used in the same way. Water and vinegar or ammonia and water, equal parts, have been used with some success in many instances. Nothing we have used as a wash has given complete satisfaction, although all have improved the looks of the mica. The better plan is to take the mica out of the stove, and with some sharp thin instrument like a pocket knife blade, split off a thin leaf, which will leave the under layers as bright as new. Mica is susceptible of being divided into layers so thin and light that they can almost be carried by the air.

The Schoolmarm's Story.

A frosty chill was in the air— How plainly I remember— The bright autumnal fires had paled, Save here and there an ember. The sky looked hard, the hills were bare, And there were tokens everywhere That it had come—November.

I locked the time-worn school-house door, The village seat of learning, Across the smooth, well-trodden path My homeward footsteps turning; My heart a troubled question bore, And in my mind, as oft before, A vexing thought was burning.

"Why is it up hill all the way?" Thus ran my meditations; The lessons had gone wrong that day, And I had lost my patience. "Is there no way to soften care, And make it easier to bear Life's sorrows and vexations?"

Across my pathway through the wood A fallen tree was lying, On this there sat two little girls, And one of them was crying. I heard her sob: "And if I could I'd get my lessons awful good, But what's the use of trying?"

And then the little hooded head Sank on the other's shoulder; The little weeper sought the arms That opened to enfold her, Against the young heart, kind and true, She nestled close, and neither knew That I was a beholder.

And then I heard—ah! ne'er was known Such judgment without malice, Nor queenlier counsel ever heard In senate, house or palace— "I should have failed there, I am sure, Don't be discouraged; try once more, And I will help you, Alice!"

"And I will help you." This is how To soften care and grieving; Life is made easier to bear By helping and by giving. Here was the answer I had sought, And I, the teacher, being taught The secret of true living.

If "I will help you" were the rule, How changed beyond all measure Life would become! Each heavy load Would be a golden treasure; Pain and vexation be forgot; Hope would prevail in every lot, And life be only pleasure. —*Wolstan Dixey.*

Cured.

Mrs. Flamley attempts to be fashionable. The other night, when she dressed to go out, she appeared with a silver spoon on her breast. "Margaret, what in the world do you call that?" asked her husband.

"This was my grandmother's sauce spoon. You know that its fashionable now to wear old family plate."

Flamley said nothing more, for he knew that it was unnecessary to argue with his wife. The next night, he asked his wife to go out with him, and again she put on her spoon. After awhile Flamley came out with an enormous butcher-knife on his shirt-front.

"Henry, what is that?"

"This was my grandfather's butcher-knife. It's fashionable now to wear!"

"I'll take off the spoon."

"All right! Off goes the knife."—[Arkan-aw Traveller.

The Wayside Well.

He stopped at the wayside well,
Where the water was cool and deep;
There were feathery ferns 'twixt the mossy
stones,
And gray was the old well sweep.

He left his carriage alone,
Nor could coachman or footman tell
Why the master stopped in the dusty road
To drink at the wayside well.

He swayed with his kid-gloved hands
The well sweep creaking and slow,
While from seam and scar in the bucket's side
The water plashed back below.

He lifted it to the curb,
And bent down to the bucket's brim,
No furrows of time or care had marked
The face that looked back at him.

He saw but a farmer's boy
As he stooped o'er the brim to drink,
And ruddy and tanned was the laughing face
That met his over the brink.

The eyes were sunny and clear,
And with brow undimmed by care,
While from under the brim of the old straw
hat
Strayed curls of chestnut hair.

He turned away with a sigh:
Nor could coachman or footman tell
Why the master stopped in his ride that day
To drink at the wayside well.

—Walter Learned.

Home Adornment.

To those ladies who are so unfortunate as to be deprived of the opportunity of learning embroidery or painting for home adornment, we would suggest a very simple way of ornamenting table scarfs, bracket or mantel hangings, or sofa pillows. It is to buy brocaded or embossed velvet, which is very reasonable in price now, as it is out of style for dress goods, and follow the outline of leaves and flowers with a fine gilt or silver cord. Choose a style in which the pattern is rather small and it will have the effect of oriental embroidery. The cord can be bought at all dry goods stores. The variety which has a scarlet or blue silk thread twisted with the gilt is the prettiest. After it is done, use it in bands across the ends of scarfs, or on draperies, or as a heading for fringe and upon any cloth, velvet or plush material. Pretty little hand bags are made and hung in conspicuous places—the back of a rocking-chair, for instance—in every room, to be used for sewing materials or as a scrap bag. They are made of every material and are embroidered or painted on one of the two sides. They are of the usual oblong shape, with a frill at the top, and are hung by ribands. They are very pretty made of sateen dress goods, in delicate colors and small figures. These are improved by emphasizing, as it were, the dark shades in the figures by a tracery of embroidery silk to match, using the outline stitch. A pretty ornament for a centre table is a photograph case. These are made in shape like a photograph, but large enough to hold from six to a dozen photographs. A lovely one we saw was made on the upper side of light peacock blue sateen, embroidered with a small spray of pink apple blossoms. The underside was of wine-colored velvet. It was lined with cream-colored lining silk. The edge was finished with a small silk cord. The upper side is a long inch shorter than the under side, and this deficiency is filled at the bottom

by a band of velvet like the back of the case. One corner at the top is turned back and the word photograph is worked in scrip letters, using a fine outline stitch. These cases are also pretty made of the embossed velvet, described at the beginning of this article.

How to Keep Celery.

We have tried several methods of keeping celery in good condition for family use through the winter, and unhesitatingly give our preference to the following plan: We take a flour barrel with both heads on and saw it in two parts through the middle. This gives us two tub-shaped vessels. In digging the celery we leave all the roots on it, only shaking off the dirt. Take one of the tubs and sprinkle about two inches of moist sand over the bottom. Then give the barrel a slight incline, not enough to move the sand in the bottom, but simply enough to make the celery plant lay up right against the lower side. Pack the plants snugly on end, the roots in the sand, until the tub is filled full, which will require about 100 plants. After this is done, part the leaves with the hand and sift dry sand on the plants, filling up all the interstices, leaving only the leaves uncovered. When this is done, a slight sprinkling of water, say a pint to a tub, and the work is done. Roll the tub in a cool dark place in the cellar. When you begin to remove the celery for use, tip the barrel so that the sand will not fall away from the remaining plants. This will be found an admirable, convenient plan, and under it the celery will improve from day to day. Sand is very much better than earth for packing. It retains moisture better and is more apt to be free from substances causing rust, or insects that might prey on the tender plants. We have tested the above method thoroughly, and commend it from a knowledge of its uniform good results. —[From our Home and Fireside Magazine.

Not at Home.

This is, with many who would shudder at the bare thought of a falsehood, a convenient method of refusing to see visitors. "I never," says a lady, "sent that message to the door but once, and for that once I shall never forgive myself. It was more than three years ago, and when I told my servant that morning to say 'Not at home' to whomsoever might call, except she knew it was some intimate friend, I felt my cheeks tingle, and the girl's look of surprise mortified me exceedingly. But she went about her duties, and I about mine, sometimes pleased that I had adopted a convenient fashion by which I could secure more time to myself, sometimes painfully smitten with the reproaches of my conscience. Thus the day wore away, and when Mr. Lee came home, he startled me with the news that a very dear and intimate friend was dead.

"'It cannot be,' was my reply, 'for she exacted of me a solemn promise that I would alone sit by her dying pillow, as she had something of great importance to reveal to me. You must be misinformed; no one has been for me,'—here suddenly a horrible suspicion crossed my mind.

"'She sent for you, but you were not at home,' said Mr. Lee, innocently; then he continued, 'I am sorry for Charles, her husband; he thinks

her distress was much aggravated by your absence, from the fact that she called your name piteously. He would have sought for you, but your servant said she did not know where you were gone. I am sorry. You must have been out longer than usual, for Charles sent a servant over here three times.'

"'Never in all my life did I experience such loathing of myself, such utter humiliation. My servant had gone further than I in adding falsehood to falsehood, and I had placed it out of my power to reprove her by my own equivocation. I felt humbled to the very dust, and next day I resolved, over the cold clay of my friend, that I would never again, under any circumstances, say, 'Not at home!'"

Humiliated.

One of those good-natured persons who are always bent on imparting information was humiliated not long since:

A negro was recently seated on a rail-fence in Arkansas, intently looking at the telegraph-wires. A gentleman passing said,—

"'Watching the wires?'"

"'Yes, sah.'"

"'Waiting to see a message go by, hey?'"

The negro smiled and said, "Yes, sah."

The gentleman kindly told him that messages were invisible, and explained the work of the electric current to him at length. Concluding, he said:—

"'Now you know something about it.'"

"'Yes, sah.'"

"'What do you work at?'"

"'I'm a telegraph-operator at Hazel Switch Station, sah.'"—[Pittsburgh Chronicle.

"Wife."

Ruskin, whose voice is that of a prophet, recalling men and women to those domestic ways in which pleasantness and peace are found, thus writes of the beautiful word "wife:—

It is the great word in which the English and Latin languages conquered the French and Greek. I hope the French will some day get a word for it instead of *femme*.

But what do you think it comes from? The great value of the Saxon words is that they mean something. Wife means "weaver."

You must either be house-wives or house-moths, remember that. In the deep sense you must either weave men's fortunes and embroider them or feed upon and bring them to decay.

Wherever a true wife comes, home is always around her.

The stars may be overhead, the glow-worm in the night's cool grass may be the fire at her feet, but home is where she is, and for a noble woman it stretches far around her, better than houses ceiled with cedar or painted with vermilion—shedding its quiet for those who else are homeless.

This, I believe, is the woman's true place and power.

A young fellow offered to kiss a Quakeress. "Friend," quoth she, "thee must not do it." "Oh! but, by Jove! I must," said the youth. "Well, friend, as thee hast sworn, thee may do it, but thee must not make a practice of it."

Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES.—You will observe that, according to promise, I have given you some new forms of puzzles this month, thus having a greater variety from which to select. I hope you will try to send some really good ones for our December number. I did not count No. 4 rebuses amongst our puzzles, as it was a prize given separately, and is intended for adults as well as children. The object desired is to obtain the best deduction or inference from the picture. I thank all those who sent the autumn leaves; the collections were very large and very fine; especially pretty were those of Miss Alice M. Hume, of Burn Brae P. O., Ont., who wins the month organ. We hope Miss Alice will learn to play some pretty airs upon it, which will not be difficult if she has an ear for music. Now I hope you will send me some good puzzles for the concluding number for 1884, which finishes the competition for prizes; then after receiving the answers the results will be given all together in the January number. UNCLE TOM.

Puzzles.

1—METAMORPHOSES.

Change one letter at a time. Exchange boot to shoe in three moves. " beat to flog in four moves. " wood to coal in three moves. " cot to bed in four moves. HARRY A. WOODWORTH.

2—NUMERICAL ENIGMA.

I am an old adage containing twenty letters: My 6, 13, 19, 17, means actual. My 4, 19, 6, is armed conflict. My 7, 4, 20, 12, 6, is a proprietor. My 2, 7, 5, 17, 3, is a person of rank. ADA ARMAND.

4—TRANSPOSITION.

Whole I am a county in Ontario. Behead and I am a village in the county of Peel, Ont. Curtail and I am a musical expression. Behead and transpose and I am the name of a man spoken of in the Bible. Behead and transpose and I am a preposition. ADA HAGAR.

5—ANAGRAM.

A uth l ce shot a ~ of birds in the squire's park; the gamekeeper said, I shall put a . to that, but the uth —ed away with an ! of defiance; the squire has , nd of the whole : y and called on this uth to answer for his offence, but he lis 10 ed not 2 his ??? There was a gr 8ly exagger 8 ed ¶ in the paper about it. ADA ARMAND.

6—A DIAMOND.

A consonant, a liquor, a flower, a robber, a noted place in geography, a kind of spear, a writer, part of a circle, a vowel.

7—CROSS PUZZLE.

An animal (3), a tree (3), a poem (3), part of a harness (5), a poet (5), a poet (5), and so forth (3), a vehicle (3), not well (3), a tree (3), devoured (3), always (3). These when put down will form a cross, the central word of the cross bar being the name of a poet, and the centrals read downwards will give the name of one of his works; the figures after the words indicate the number of letters in each word. A. J. TAYLOR.

8—DROP VOWEL PUZZLE.

Th-r-r-m-m-nts wh-n s-l-nc-pr-l-ng-d-nd -nbr-k-n M-r-xpr-as-v-m-y-b-th-n-w-rds-th-t-r-sp-k-n. MARY HALIBURTON.

Puzzles for Examples.

DOUBLE CROSS WORD ENIGMA.

In heathen, not in Jew. In landscape, not in view. In parry, not in fight. In vivid, not in light. In enter, not in stay. In actress, not in play. In otter, not in loon. In chamois, not in coon. In horror, not in fright. In crimson, not in white. In listen, not in call. Whole we witness every fall. ANS.—Harvest moon. Harvest home.

TWO WORDS WITHIN A WORD.

Although much — he — to walk with crutches. He hated — who oppress — it over tenants. I do not like a green — — well for the target as a — one. I — partial to — as you are. Am — expert on the —? No. The — was — myth. The way to win — to — her.

ANS.—1st, disabled—is able. 2nd, landlords — and lord. 3rd, rim so—crimson. 4th, am as—damask.



3—ILLUSTRATED REBUS.—A Scotch Quotation

5th, I am—piano. 6th, ballad—all a. 7th, her is cherish.

CHANGED HEADINGS.

- 1. Counterfeit = the oyster plant. 2. Reverence = a common wild plant. 3. Discus = a kind of grain. 4. Search for = an edible plant. 5. Determine = a troublesome wild plant. 6. Blow musically = an annoying wild plant. ANS.—1. Falsify—salsify. 2. Hallow—mal-low. 3. Parley—barley. 4. Seek—leek. 5. Settle—nettle. 6. Whistle—thistle.

CONNECTED DIAMONDS.

- 1. In heaven as well as earth. 2. In China it has its birth. 3. A christian name. 4. Leads many to fame. 5. In joy though not in mirth. 1. In bonnets, feathers and ties. 2. A word to express surprise. 3. An original number. 4. 'Twas made of lumber. 5. In puddings but never in pies. Set names and number apart in state, And an English king appears; (October the 1st of his birth the date), Who was crowned while yet a child of eight To reign for fifty years.

ANS.—H TEA HENRY ART Y

T AHA THIRD ARK D

Henry Third.

METAMORPHOSES.

Change one letter at a time. Exchange boy to man in three moves. ANS.—Boy, bay, may, man. Change well to sick in four moves. ANS.—Well, sell, sill, silk, sick.

Answers to October Puzzles.

- 1.—A pound of pluck is worth a ton of luck. 2.—The heart has tendrils like the vine, Which around another's bosom twine; Outspringing from the parent tree Of deeply planted sympathy; Whose flowers are hope, its fruits are bliss, Beneficence its harvest is.

5.—My brother Arthur was travelling in Africa, and while there met with some hair-breadth adventures, one of which I will relate in his own words:—

'One night, the moon being up, my comrade and I went for a walk. We had not gone far when we met a negro, as we thought under the influence of rum. He was neatly dressed in a suit of tweed, and so we went to him and accosted him in a friendly manner. He did not speak, but allowed us to bring him home, where he lay on the floor as one insensible. My comrade and I sat down to play cards, and scarcely had we turned our backs when he rushed at us with a long knife and plunged it into my companion's heart. He was just about to attack me when I wrenched the weapon from him, and throwing him on the floor, already red with my dead comrade's blood, tied his hands and feet and made my escape.'

6.—Hull, Oxford, Liverpool, Dublin, Dundee, Cork, Wick, Bath, Belfast, Ayr, Wakefield, Swansea, Stockport, Nottingham.

7.—Attempt the end and never stand to doubt; Nothing's so hard but search will find it out

8.—Gay, bay, day, hay, may, pay.

E L B A L E A D B A B E A D E N

9.—Mat-hem-atic-s—Mathematics.

10.—Fringe, ring, grin, in.

A ELK LILLY ANCIENT ALLIGATOR AFFABLE TUTOR DOT R

Sandy was a country gardener, and like many other country lads, he had a sweetheart. One night Sandy told her that he "likit" her "awfu' weel." She simply responded, "Ditto." Sandy was not very sure what that meant, but thought he would ask his father; so next day, while at work, he said, "Father, can you tell me what 'ditto' is?" "Ou, ay, Sandy!" replied his father. "Dae ye sae that cabbage?" "Yes." "And dae ye sae that ither ane, that's jist the same?" "Yes." "Well, that's ditto." Gracious guidness!" exclaimed Sandy. "Did she ea' me a cabbage?"

Names of Those who have sent Correct Answers to October Puzzles.

Mary Marshall, Addie E. Davidson, Edmund Pepper, Annie B. S. Scott, Ellis F. Augustine, Esther Louisa Ryan, Geo. Van Blaricorn, Will Thirlwall, Ada Hagar, Alice M. Hume, W. M. Head, Minnie E. Weldon, Robert Kerr, Jessie M. Fox, Amelia E. Walker, Eva Henderson, W. L. Sissons, Henry Reeve, Maggie F. Elliott, Tiny Docker, Tillie Silcox, Robert Wilson, Thos. Armstrong, Martha Hodick, Peter Lamb, Becca Lowry, Willie B. Bell, Mary McArthur, Kate McKelvey, Belle McLeod, Sarah M. Brett, Clara McLean, Philip Boulton, Maggie R. Stockton, Jas. Watson, Lizzie Watson, Sarah E. Miller, Katie Miller, Byron G. Bowerman, Adelaide Manning, Carrie Christner, Georgina Smith, Christena Hadcock, A. J. Taylor, Ada Armand, Chas. Herbert Foster, James Paterson, Harry A. Woodworth, J. W. Forbes, R. J. Risk, Sarah Wessel, William Carney, C. Gertie Heck, Lotie A. Boss, William S. Howell, Fred. D. Boss.

OUR Clubbing Combinations

Open Only to 15th January, 1885.

IMPORTANT ANNOUNCEMENT!

Balance of 1884 FREE to Those Sending in Their Names Now.

We have arranged with the publishers of the most extensively circulated, leading representative, and what we consider the most reliable papers, to enable you to procure any of them at the lowest possible rates.

THE GLOBE,

Toronto. The leading Reform paper of the Dominion.

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London. Considered one of the best conducted Conservative papers in Ontario.

THE WEEKLY STAR,

Montreal. Independent, has the largest circulation of any paper published in Canada.

THE WEEKLY WITNESS,

Montreal. Independent and Evangelical; a well conducted journal.

The Farmer's Advocate & Home Magazine and either of the above for \$1.75.

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THE CATHOLIC RECORD,

London. Claiming to be the only independent Catholic journal in Canada, for \$2.25. Or,

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THE CHRISTIAN GUARDIAN,

Toronto. The organ of the Methodist body in Canada, for \$2.75.

THE DOMINION CHURCHMAN,

Toronto. The principal Episcopalian paper of Canada, for \$2.00.

The American Bee Journal,

Chicago. The leading bee journal of this continent. For \$1.35.

The cash must in all cases accompany the order, and no commission can be allowed on the above rates.

OUR USEFUL PREMIUMS for 1885.

For One New Subscriber:

YOUR CHOICE OF THE FOLLOWING

Trees especially adapted to the Northwest.

The Crab Apple.—Two plants by mail, of what is said by Mr. Leslie to be the best in the world. These useful and valuable trees should be planted by all farmers, particularly in the Northwest.

The Ash Leaf Maple.—One packet of seed or six plants of this ornamental and hardy tree. For description and illustration see page 297 of October number.

The Silver Poplar.—One packet of cuttings or six plants. This tree is of very rapid growth and when dry makes good fire wood. See articles on page 297, October number.

The Norway Maple.—One packet of seed or six plants of this beautiful and hardy variety of the maple, a description of which appears on page 297, October number.

Adapted to Southern Ontario.

The Horse Chestnut is one of the most beautiful and useful trees grown, of very rapid growth, and for shade or ornament cannot be excelled. One packet of seed from a grand tree owned by the proprietor of this journal, and can be seen from the study window, see page 264 of September issue; or six young plants.

The Black Walnut.—Of all timber for making furniture or other useful purposes this is considered the most valuable, and is now very scarce. This excellent timber will pay for cultivation. One package of seed from trees growing on the old homestead of the editor of this paper, or six young trees.

—OR THE—

CHROMOS

Chromo "Life's Voyage."—Or Lithograph "Yes or No." Beautiful pictures, and highly prized by those who have received them.

SEEDS.

A useful collection of **Vegetable Seeds**, ten varieties, and one packet novelties for 1885.

A choice collection of **Flower Seeds**, ten varieties.

STRAWBERRY PLANTS.

Two plants, **Prince of Berries**, said to be the latest and best of the many excellent varieties, and is of the finest flavor lately introduced.

Two plants, **Daniel Boone**.—This plant has grown in favor greatly during the past season, and bids fair to be in great demand, both as to flavor, productiveness and keeping qualities.

Three plants of **James Vick Strawberry**.—In addition to the already favorable opinions expressed about this berry, it has this season averaged fully as large berries as the Wilson, and produced more fruit. One large grower states that he could fill a basket sooner from the James Vick than from any other strawberry.

Two plants of the **Dwarf Juneberry**.—These plants should be in every garden. The plant is very hardy. The fruit ripens early, and in enormous quantities.

Six plants of the **Russian Mulberry**.—The popularity of this plant still continues, and we have decided to give it again for another year.

ROSES.

So very few really good roses are to be found in the country gardens of Canada that we have decided to offer two of the best varieties grown, one a dark crimson and the other a deep yellow. The ordinary price for these roses if bought from florists is 50 cts. to \$1, but we offer your choice of either of the following for one new subscriber:

One plant of the **General Jacqueminot**.—This rose is one of the finest and prettiest; in color it is a rich velvety scarlet, changing to brilliant crimson. The buds of this variety are magnificent, rendering them of especial value for bouquets, and for wearing in the button hole. It is also a good rose for forcing. See issue for April, 1884.

One plant of the **Isabella Sprunt**.—In color is sulphur-yellow. It is a very free bloomer, and is one of the most beautiful of the yellow roses, and in the bud state can scarcely be surpassed. It is of especial value for bouquets, and makes an excellent potting plant.

The Lady's Manual of Fancy Work.—Four hundred illustrations, paper cover, containing a great variety of excellent designs for dress or household decorations. It is a book which will please, and should be in the hands of every lady.

For Two New Subscribers:

YOUR CHOICE OF THE FOLLOWING

Large and beautifully finished

CHROMOS

"Windsor Castle," or "Balmoral Castle."—These fine pictures are 30x24 inches, and form a pretty ornament to any home.

Or Lithograph of **Lorne and Louise**. The picture contains a puzzle which few are able to solve.

The Novelty Rug Machine.—Makes rugs, ties, door mats, etc. Is an entirely new invention. Performs its work satisfactorily, is simple of construction, and can

be worked by a child. This little machine not only save much time and labor, but much of the material used by the use of the ordinary mat hooks. For making Turkish rugs it cannot be excelled. Every housekeeper should have one. See page 307 of October issue.

For Three New Subscribers:

YOUR CHOICE OF THE FOLLOWING:

The World's Cyclopaedia and Library of Useful Knowledge.—Giving concise information on nearly every subject. Contains 800 pages, 60,000 references, and 1,200 illustrations, and is an indispensable library of universal knowledge.

The White Mountain Apple Parer.—This machine does its work economically and quickly, leaving the fruit ready for drying, &c. This parer is the best and most serviceable one which we know of, and can strongly recommend it to every person. Per express at receiver's charges.

The White Mountain Potato Parer—is said to be not only the best one made, but the only one manufactured which will pare a potato better than it can be done by hand, taking off a thinner paring from every shape or kind of potato, but will go into and clean out the eyes. Per express at receiver's charges.

The "Household" Special Premium, the new **American Dictionary**—Contains 1,000 engravings, and more pages than any similar work. No house should be without one.

OUR RULES.

Each new name must be accompanied with \$1 for the annual subscription.

The premium is for the person who secures the new name, and does not in any way belong to the new subscriber.

All plants, seeds, &c., will be sent free by mail early next spring. Books, chromos, &c., will be mailed free as early as possible after receipt of name. The apple and potato parers will be forwarded by express at cost of receiver.

Send for sample and commence your canvas at once. Sample copies sent free.

Address.

The FARMER'S ADVOCATE, London, Ont.

Caution.

In answer to A. J., Lucan, Ont., we make the following observations, which cover his questions:—

Despite our continued warnings, farmers will allow themselves to be talked into purchasing wares that they do not require. Some unprincipled travellers use the most plausible means to obtain farmers' signatures under false representations; some of them, when fairly cornered, are found not to be acting under the instructions of their principals. Some farmers have been ruined by this class; others have been very materially crippled. Some of these pretending agents have been exposed by legal means, notwithstanding the many cloaks they put on. There are many honorable agents travelling and doing good to farmers, but the number of unprincipled ones should if possible be curtailed. It is a difficult matter for farmers to detect the fraudulent falsifier, and even when one has been detected and his vile plans are known, he is not deterred from repeating his schemes, and is enabled to fortify himself by adding clauses to his papers. Farmers, be in no hurry to sign your name to any paper; take three days to consider and consult your best friends; see that a lot of clauses that are intended to make you liable, are not printed on the back or even front of any document you put your name to. If you really want trees at 50c. each or \$3 that are only worth 10c., you can tell the agent that he can leave the order, and if you want the goods you will forward the order in a few days. If it be for a set of books, an implement, or anything else, do not sign your names on travellers' books. Send your address direct to the head office; you can mention the agent's name and you will have the goods if you want them. Remember you are a free man until you sign your name. Perhaps you have done as we have done too often, signed our name to things that we have afterwards regretted. We have been so often misled that we have concluded to send our address direct to headquarters; it is found much more satisfactory. Any wares that you may require are advertised for sale by some responsible firm. The firm, if a good one, will make arrangements about delivery better than you can.

1885.

mine not only save material used by making Turkish housekeeper should issue:

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OWING:

Library of information on pages, 60,000 refer- is an indispensable

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London, Ont.

make the following us :-

farmers will allow g wares that they travellers use the 's' signatures under hen fairly cornered, nstructions of their uined by this class; rripped. Some of sed by legal means, ey put on. There and doing good to ed ones should if m matter for farmers even when one has own, he is not de- and is enabled to s papers. Farmers, any paper; take ur best friends; see to make you liable, nt of any document want trees at 50c. u can tell the agent u want the goods ys. If it be for a ng else, do not sign your address direct e agent's name and them. Remember ur name. Perhaps often, signed our ds regretted. We e concluded to send it is found much u may require are e firm. The firm, if out delivery bet-

Commercial.

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

The weather has the past month been very mild and favorable for fall plowing and farm work of all kinds. Trade is very quiet and dull. Merchants are complaining that farmers are not marketing their products, and hence trading is very light.

WHEAT.

There is no change to note in the wheat situation since our last, except that prices still have a downward tendency. Late cable advices contain nothing new and certainly nothing interesting, and their general tone was expressed in unsatisfactory terms. Notwithstanding the low price the movement of wheat in the Western States has been free, and the receipts are liberal. Stocks at some points are accumulating. In order that our readers may have some idea of the probable wants and surplus stocks of the wheat growing countries of the world, we give below Beerbohm's London Grain Trade List estimate of probable wheat export surplus of the wheat exporting countries and the probable wants of the wheat importing countries for the campaign of 1884 and 1885:

Table with 3 columns: Countries, Probable requirements, Probable supplies. Lists various countries like United States, United Kingdom, France, etc.

We hear a good deal about overproduction and that farmers are growing too much wheat. But it becomes a pertinent question whether we have too much wheat. No doubt the price is low, but is it bad for the country in general that we have cheap bread? The great mass of consumers do not regard it as a misfortune that they can now buy a barrel of flour for four dollars. But in order to benefit the farmers wheat must be permanently cheap and not produced when articles entering into the cost of production are high. Farmers, as a class, raise those crops that in their judgment pays them best, and when they find wheat growing unprofitable they will make a change.

It must not be forgotten that when an article of food is very cheap the consumption is almost invariably increased, and thus the very cheapness of that article tends to check its superabundance. Just now cheap bread comes as a boon to thousands who feel the scarcity of work and the gradual reduction in wages.

Farmers must also bear in mind that the purchasing powers of a bushel of wheat, say at 75 cents, is about as great as it was two years ago at say \$1 to \$1.10. This is a very important factor, and one which farmers lose sight of.

CLOVER SEED.

This article is a light crop, and it is doubtful whether there is seed enough in Canada for the home trade. The price here will be guided en-

irely by the prices in the States, and the export demand from England and Germany.

BEANS.

All through the section where these are grown the crop is very fine, and the yield above the average. Prices will be lower than last year, but at present quotations, 90c. to \$1, they will pay well.

APPLES.

A leading apple dealer in London, England, writes as follows, under date Oct. 16th:

"With liberal receipts of apples from the States during the past two weeks, the market in London has been quite busy. The quality of the fruit on offer, in many cases, leaves something to be desired, but occasionally an extra fine parcel creates keen competition amongst buyers. The tendency at present is in favor of red fruit, but green fruit is not in any way neglected. With an improvement in the stock market will now begin to harden and the prospects for November month may be considered good. We offered yesterday 1,100 barrels States apples shipped at through rate via Liverpool to London, and realized as follows for sound well-packed fruit:—Baldwins, 13s@17s. per barrel; greenings, 12s@14s 6d per barrel; N. spy, 13s 6d@14s 6d per barrel; kings, 15s@18s 6d per barrel; spitzenbergs, 14s@16s 6d.

LIVE STOCK.

The British cattle trade continues dull and unsatisfactory, but the severe depression reported some little time ago has been slightly modified in the right direction. Supplies of all grades are heavy, and will have to be worked off before trade can resume a healthy tone. The stocks are not only ahead of requirements, but quality is poor.

The following table shows the exports of live stock from Montreal during the week ending October 25, with comparisons, as compiled by the Montreal Gazette:—

Table with 4 columns: Per, To, Cattle, Sheep. Lists export data for various locations like Cynthia, Milanese, Austrian, etc.

The week's shipments were distributed as follows:— To Cattle Sheep Liverpool 852 2,296 Glasgow 997 130 London 158

The Lake Champlain took out 689 quarters beef, making the total shipments to date 13,527 quarters.

BUTTER.

The demand for strictly fine is good, and creamery is quoted in Montreal at 26 cents. Dairy is worth 17 to 21 cents in Montreal.

CHEESE.

A quiet and steady market has ruled for

some time. The heavy export movement from Montreal this season is worthy of note. The Montreal Gazette says:—

"The heavy export movement of cheese from Montreal this season is a fact of considerable significance since it marks an epoch in the history of the trade, and shows how rapid has been its development, literally by leaps and bounds during the last few years. Several years ago the proposition that Montreal would export over 1,000,000 boxes in 1884 would have been considered visionary. But it will be an accomplished fact, due to the vast increase in the production, stimulated by the great natural advantages which this country enjoys. The exports to date reach within a few thousand of one million boxes, and the season has yet four weeks to run, during which, we should think, fully 150,000 boxes will be added to the total. Now if we allow 150,000 boxes as the American product shipped via Montreal, which is a fair percentage so far as can be ascertained, it leaves 1,000,000 boxes exclusively of Canadian product, which in round figures may be valued at \$6,000,000. Our shipments of late have exceeded those from New York by several thousand boxes, and the difference between the shipments of these two ports has been very materially lessened, so much so that New York dealers can no longer afford to ignore our shipments or the condition of the trade in Canada in forming an intelligent opinion of the general situation. The state of affairs in Canada is yearly becoming a more important factor in the cheese trade of the world. The quality of Canadian cheese averages higher than the American article, inasmuch as not more than two or three per cent. of our product are skims, whereas there are considerable quantities at ways offering in New York. This is a point which should not escape factorymen, as with the exercise of a reasonable amount of care in manufacture it can be made to sell still more in their favor. But the Canadian method of doing business does not present such a favorable comparison. The pernicious contract system, which has produced so much evil, has been followed this season to the manifest injury of the trade, and the petty jealousy that actuates too many members of the trade are matters for regret. It is hardly in accord with sound commercial principle to block trade in the country by false bids. Anything to make the factory men hold rather than that another should get the goods. Neither is contracting conducive to a high standard of commercial morality, for this season factorymen were deliberately swindled in their contracts as far as it could be done without it becoming too flagrant. Whole sale repudiation would have been indulged in had the contractors not been possessed with a wholesome dread of the exposure which would surely have followed. It is to be hoped that the heavy losses made will furnish a salutary lesson. We learn that many factorymen are taking a business view of the matter, and expressing their determination to avoid contracting. When our dealers become enlightened enough to abandon the immoral system of contracts and sufficiently broadminded to let their neighbors buy a few cheese at market prices, we may look for a satisfactory and legitimate trade."

PRICES AT FARMERS' WAGONS, TORONTO.

	Nov. 1st, 1884.	Nov. 1st, 1884.
Wheat, fall, per bushel.....	\$0 75	0 76
Wheat, spring, do.....	0 76	0 78
Wheat, goose, do.....	0 60	0 62
Barley, do.....	0 50	0 70
Oats, do.....	0 33	0 34
Peas, do.....	0 59	0 60
Rye, do.....	0 60	0 60
Beans, do.....	90	1 00
Dressed hogs, per 100 lbs.....	6 00	7 00
Chickens, per pair.....	0 45	0 60
Ducks, do.....	0 60	0 75
Butter, pound rolls.....	0 20	0 23
Cheese.....	10	12
Eggs, fresh, per dozen.....	0 20	0 22
Potatoes, per bag.....	0 40	0 45
Apples, per bbl.....	0 50	1 75
Cabbage, per dozen.....	0 25	0 30
Turnips, per bag.....	0 25	0 30
Carrots, per bag.....	0 40	0 50
Beets, per doz.....	0 12	0 15
Parsnips, per peck.....	0 15	0 20
Hay, per ton.....	8 00	14 00
Straw, do.....	6 00	9 00
Clover seed.....	6 00	7 00
Timothy seed.....	1 75	2 25

BRITISH MARKETS BY WIRE.

Cattle and Sheep Slow, but Steady.

LIVERPOOL, Oct. 27th, 1884.

CATTLE.

The cattle market was dull and weak, with a large general supply. Receipts from Canada and the States light. Prices generally unchanged.

	Cents @ lb.
Choice steers—American.....	14
Good steers.....	13½
Medium steers.....	12½
Inferior and bulls.....	6 @ 7

SHEEP.

Offerings of home-bred sheep ample. The mutton market well supplied. American and Canadian sheep nominally steady.

	Cents @ lb.
Best long woolled.....	13½
Seconds.....	12 @ 13
Merinos.....	11 @ 12
Inferior and rams.....	6 @ 7

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

LIVE STOCK MARKET.

East Buffalo, N. Y.

Nov. 3.—Receipts—Cattle, 3,723; hogs, 15,065; sheep, 12,600. Shipments—Cattle, 2,747; hogs, 11,710; sheep, 7,600.

Cattle—Receipts heavier than expected; market opened quiet, but later trade fairly active, bulk of offerings sold at prices steady at former rates; only a few good cattle here, that brought \$5 75 to \$6 10; Canada stockers in good supply and weaker; mitch cows and springers about steady.

Sheep and lambs—Offerings of sale sheep and lambs very heavy; while a good many changed hands, the market ruled about steady with no improvement in prices; sales ranged \$3 25 to \$3 75, a few extra taken by feeders sold at \$3 90 to 4; Western lambs, \$3 90 to \$4 60; Canadas, \$4 60 to \$4 75; extra, \$4 80.

Hogs—Ruled with fairly good demand, prices shade higher; sales, Yorkers, good to choice, \$4 60 to \$4 70; few extra, \$4 75; light to common, \$4 45 to \$4 55; good mediums, \$4 70 to \$4 80; few extra, \$4 85; pigs, \$4 25 to \$4 50.

The Glencoe Fair was held on the 4th inst. There was only about one-half of the usual quantity of stock on the ground, on account of the farmers having disposed of unusually large quantities to meet their present requirements, in preference to selling their grain. The prices were about 25 per cent. less than last year, this year's quotations being 3-5 cents live weight, and last year's 4-6 cents. Last year 23 car loads were shipped from this station on fair day; this year only 10, and there has been an average of eight cars per week shipped during the past six weeks. This is one of the largest shipping points in Canada.

CHEESE MARKETS.

LONDON.

Nov. 1.—The offerings at Saturday's market—the last of the season—were small, owing to the bulk of the factories in this section having sold; 1,350 boxes were registered; no sales. Cable, 56s.

UTICA, N. Y.

Nov. 3.—Sales of 5,430 boxes of cheese at prices ranging from 11c to 12c; bulk at 11½c; 400 on private terms; 575 consigned. Market dull and declining.

LITTLE FALLS.

Nov. 3.—Sales of 965 boxes of cheese at 11½c to 11¾c, 50 on private terms, 60 consigned; 234 boxes of farm dairy sold at 11½c to 12c, and 90 packages of butter at 22c to 27c.

Eggs in Winter.

A correspondent of the Tribune Farmer writes as follows in regard to the laying of eggs in winter:—"Give the fowls warm drink every morning, and see that they have an abundance of gravel. Concoct a pudding for them two or three times a week—not oftener—with the following ingredients: Place an old pail out at one side, and into this throw the meat scraps that are good for nothing else, egg-shells, beans, hominy, bread-crusts, corn parched very brown, coarse meal-siftings, and then when the day arrives to serve up this dish, take the water in which you have parboiled your pork and beans, or other greasy water, stirring into it bran sufficient to thicken well, allowing it to cook a few minutes, pouring the whole over these saved-up scraps. Let it stand a short time after it is thoroughly stirred, and feed while warm. Aside from this, give warm drink every morning, and you will have an abundance of eggs.

The question is often asked, What percentage of cream should a cow's milk give? The answer thereto cannot possibly be definite, the circumstances of breed, food, water, age, length of time since calving, all affecting the case to a material extent. Breed is the greatest cause of variation, and even this is considerably modified by individuals of the same breed. As a rule, the better established the breed the more uniform the percentage of cream, and the greatest divergence exists with regard to crosses and grades. The average of the two breeds of which the cow is made up is a very imperfect guide, but would have to be resorted to in cases in which practical tests cannot be obtained. The following figures relative to the average percentage of cream produced by the best known breeds, will be a valuable guide to the farmer or dairyman:—Shorthorn, 6-10 per cent.; Polled Angus, 6-8; Hereford, 5-6; Devon, 8-9; Ayrshire, 6 8; Canadian, 6-10; Holstein, 10-12; Jersey, 25-33. These figures represent the averages by *measure*; the percentages by *weight* will be between one and two per cent. less. There is another important question in reference to the percentage of water in milk; but this is much more constant than the percentage of fat. Sour, slushy foods produce watery milk of inferior quality; while wholesome, solid foods produce milk containing less water and consequently more fat and solids. The percentage of water may vary from 86½ to 88½.

The English sparrow must go. American ornithologists have put their foot on it. Its virtues and its vices have been weighed in the balance, and on the whole it has been found wanting. Those who have seen it make havoc amongst injurious insects, and those who have cultivated a relish for dainty bites, still defend the bird; but those who have watched its depredations amongst crops are in the majority,—so the poor sparrow must go.

The best way to blend ornament with use is to plant crab apple trees.

(See Notices, page 346.)

NEW ADVERTISEMENTS.

ADVERTISING RATES.

The regular rate for ordinary advertisements is 25c. per line, or \$3 per inch, nonpariel, and special contracts for definite time and space made on application.

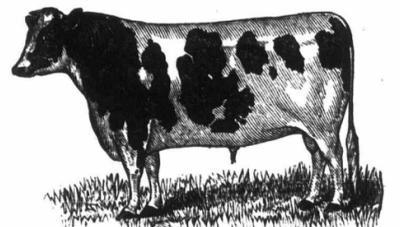
Advertisements unaccompanied by specific instruction inserted until ordered out, and charged at regular rates.

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 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.

HOLSTEINS FOR SALE



"BARRINGTON," No. 278 N. H. B.; No. 2103 H. H. B.; Out of Hamming, with Milk Record of 99 Pounds in Single Day.

WE now have in quarantine, at Quebec, an importation of over 60 head of Holsteins, which will be released Dec. 29th. This herd consists of

COWS, YEARLINGS AND CALVES

and has many prize animals from this year's great International Exhibition at Amsterdam, including the cow that won first prize of \$160 and bronze medal as giving the best quality of milk for cows giving over 40 pounds per day; also the cow with her gold medal won at Schagen in 1881. The cows of this importation have milk records from 65 pounds per day as 3-year-olds to 92½ pounds as mature cows, and the ancestors of the young stock have equally good records. Wishing to give our Canadian friends and patrons the benefit of our personal selection of first-class Holstein Stock without the necessity of a second quarantine, we, with great difficulty, succeeded in obtaining transportation to Quebec, and feel confident that they will in return embrace the present desirable opportunity of securing them before quarantine expires, as all not then disposed of will be removed to the Sinclairville Stock Farm.

All correspondence should be addressed
B. B. LORD & SON,
Sinclairville, Chaut. Co., N. Y.

227-b

SECOND ANNUAL ONTARIO PROVINCIAL

FAT STOCK SHOW

TO BE HELD IN THE

City of Guelph on Dec. 17 and 18, 1884

Under the auspices of the Agriculture and Arts Association of Ontario, and the Guelph Fat Stock Club
Cattle to be in the Building on the Evening of the 16th.

WM. WHITE LAW, President, Guelph.
HENRY WADE, Secretary, Toronto.

J. M'PHERSON ROSS, PORTRAIT PAINTER

Equity Chambers, Toronto.

Satisfactory and beautiful portraits painted from small photographs. Write for sizes and prices of pictures.
Reference FARMER'S ADVOCATE. 227

ECONOMY

The Farmer's Advocate

The Catholic Record

AND MAY BE HAD FOR \$2.25 PER ANNUM.

The Catholic Record is not identified in any way with party politics, its sole purpose being to supply a reliable organ of Catholic opinion.

Gurney & Ware's Standard Scales



Have taken first Prize at 22 Provincial Exhibitions; first Prize at Provincial Exhibition, London, 1881.

Send for catalogue to GURNEY & WARE, Hamilton, Ont.

A GREAT OFFER

We have made an arrangement with the publishers of the Montreal Weekly Witness to club with that paper during the coming year.

"WEEKLY WITNESS"

is acknowledged by its readers, which now number 41,000, to be

"THE BEST FAMILY PAPER IN CANADA."

The Montreal Weekly Witness and the Farmer's Advocate from now till the end of next year for \$1.75.

Address all orders to WM. WELD, FARMER'S ADVOCATE, LONDON, ONT.

CATARRH CANNOT BE CURED

by Snuffs, Washes or local applications. It is a weakness of the constitution, developing itself in the nasal organs first, afterwards extending to the throat and lungs, ending generally in consumption, if not checked by proper remedies.

GREAT CONSTITUTIONAL CATARRH REMEDY.

Price, \$1.00 per bottle. For sale by all druggists and medicine dealers. Send stamp for Treatise on Catarrh and Certificates to back the above, to

T. J. B. HARDING, Brockville, Ont. Agent for the Dominion and Provinces.

AGENTS WANTED for best Family Bible published, containing 2,600 engravings, &c.; also Prof. Fowler's Science of Life, Moody's Sermons, Story of the Bible, Our Department (new edition), Home Cook Book.

Trees! Trees!! Trees!!!

AN IMMENSE STOCK! 1,000,000 Russian Mulberry. 50,000 Dwarf Juneberry. 50,000 Russian Apricot.



CHAMPION STUMP AND STONE EXTRACTOR.

Warranted to do more work with the same labor than any other. For circular, price, etc., send to inventor and manufacturer

S. S. KIMBALL, 577 Craig St., Montreal, P. Q.

GREAT SOUTHWEST

Cattle Ranches, Grain Farms and Splendid Business Locations are Found in Arkansas and Texas.

THE GREAT MISSOURI PACIFIC RAILWAY

has inaugurated a SERIES OF CHEAP LANDSEEKERS EXCURSIONS to ARKANSAS and TEXAS, leaving St. Louis TWICE EACH MONTH.

THE TRAINS are special and made up of splendid Day Coaches, a Pullman Palace Car, and the new and comfortable Land Seekers' Excursion Sleeping Cars free to all.

THE RATES are made so low that all can afford to join one of these popular excursions. LEAVING ON WEDNESDAY, NOV. 19th. Make all your arrangements to reach St. Louis on that date.

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Stock Notes.

The Oxford Christmas Fat Stock Fair will be held at Woodstock on Tuesday, Dec. 16, and prizes amounting to \$350 will be offered.

Jas. S. Smith, Maple Lodge, Ont., purchased the Cruickshank heifer "Lovely Queen 3rd" at the sale of J. S. Armstrong, Speedside. Her dam, "Lovely 19th," was bred by A. Cruickshank, Sittyton, Scotland, and she was sired by "Butterfly Duke."

The second annual Ontario Provincial Fat Stock Show will be held in the City of Guelph Dec. 17 and 18. This being the largest and most successful fat stock show in the Dominion, should be extensively patronized. See adv.

Messrs. B. B. Lord & Son, Sinclairville, N. Y., report the importation of 60 head of Holsteins (see advertisement), consisting of cows, yearlings, and calves, many of which won prizes at the International Exhibition at Amsterdam.

Messrs. Wm. Justin & Sons, of Streetsville, have just completed the following sales:—S. S. DeArman, Venango Co., Penn., U. S. A., one yearling ram; Messrs. Geary Bros., London, one yearling ram; Mr. T. C. Patteson, Eastwood, Ont., one ram lamb; Mr. Jas. Glennie, Guelph, one ram lamb; Mr. W. H. Stubbs, Rosworth, one ram lamb; and have secured a yearling ram from the well known flock of Geary Bros.

Mr. G. F. Frankland has been in England investigating the condition of the Canadian cattle trade. On his return he was interviewed by a reporter who states that he pointed out the changes that have taken place in the trade. The shipper in the early times was under much more expense than he is now. He had to pay from £5 to £7 freight on each carcass, whereas he has now only to pay from £2 to £3. Besides this, he had to provide wooden stalls at his own expense, and these were very poor accommodation, at best. Now the companies provide iron stalls. Although the shippers have all these advantages at the present time, yet the trade is now carried on at a loss, while under the old state of affairs, there was money in the business. Canadian shippers, says Mr. Frankland, lost last year over two million dollars. Yet it was claimed by those who wished to get Wyoming cattle through Canada, that the markets in the Old Country were good at present. The fact was that the demand now for meat in the Old Country very little exceeded the supply. There was, first, the supply of carcasses of mutton from Australia. A large number of cattle were also received from those ports of the European continent which had clean bills of health. With these facts there was coupled the almost entire absence of disease among the cattle of Great Britain, all of which causes had combined to materially reduce the price of meat. These facts indicated that either there must be a falling off in the number of cattle shipped from Canada or a lowering of the price of Canadian cattle.

(Continued on page 348.)

ENTS.

ements is 25c. per special contracts for ation. specific instruction at regular rates. called advertising ada, exceeding in the other agricul- Send for adverti-

reds of dollars of- ing of a swindling undertake to relieve common prudences ige for themselves e nature of things ey will find it a ary bargains, and ful cases by pay-

R SALE



H. B.; No. 2103, with Milk Single Day.

bec, an importation which will be released

D CALVES

in this year's great Amsterdam, in- of \$100 and bronze milk for cows giving with her gold medal of this importation r day as 3-year-olds the ar-cestors of the s. Wishing to give the benefit of our clas- Holstein and quarantine, we, obtaining transporta- they will in return tunity of securing ll not then disposed Stock Farm.

ON, aut. Co., N. Y.

PROVINCIAL SHOW

and 18, 1884

re and Arts Associa- stock Club on the Evening

h. Secretary, Toronto.

TRAIT PAINTER

oronto. painted from mal ces of picture. 227

Notices.

We would advise great caution to be observed before attempting to take the control of the agricultural fair lands in the City of London out of the hands of the farmers, particularly so as the method of electing the officers of the Board was not conducted in an open and proper manner as it should have been.

L. D. Sawyer & Co. make a specialty of fitting their threshers to thresh and clean clover seed, and as a grain thresher and grain saver their threshers have as high a reputation as any; and in regard to honorable and straightforward dealing you may depend on them.

Mr. G. White, whose advertisement appears in this issue, has had unprecedented success in disposing of his agricultural engines in the vicinity where they are made. They are giving great satisfaction, and are forcing their own way into other localities, where they are much approved of. Mr. White is a straightforward person to deal with.

We have received a neat little pamphlet from the Business College at Belleville, Ont., in which we see that they draw pupils from New York and many other States and Territories, from Bermuda and the West Indies, and from all parts of Canada. This College has a high reputation. Belleville is situated at the head of the Bay of Quinte and is one of the most pleasing, healthful, peaceful and prosperous parts of Canada. We know of no more beautiful and charming trip than from Belleville to the Thousand Islands. Those desirous of having their children educated morally, physically and mentally, in a healthy locality, should send to the College for one of their circulars.

When recently in Ayr, we were much surprised at the new machine shops erected by John Watson. They are in princely style, and when fully complete will exceed in beauty, size and convenience combined any machine shops in this Dominion. Mr. Watson's old work shops are taken by the American Plow Company. The farmers in this locality are large shareholders in this company's stock. The company are turning out excellent plows; they have gained the principal prizes at the only plowing match we have heard of having taken place near here this season, namely, in the County of Oxford. We wish all new agricultural enterprises success. Send for their catalogue.

FRUITS FOR THE WORLD'S EXPOSITION.—At a meeting of the directors of Fruit Growers' Association, lately held at Barrie, it was resolved that fruits from the different electoral districts of Ontario should be represented at the coming Exposition to be held in New Orleans. Mr. W. Saunders, President of the Association, represents district No. 11, which includes Perth, Middlesex, and the city of London, and is actively engaged in collecting all the different varieties procurable, and is determined to bring fresh honors upon the Association. The fruits will be shipped in the early part of January.

See Stock Notes, page 348.

ESTABLISHED 1866.

1885

THE

1886

FARMER'S ADVOCATE

AND

HOME MAGAZINE.

The Leading and only Independent Agricultural Paper Published in Canada.

The Best Authority on all Agricultural Subjects.

The Advocate has a Larger Circulation amongst our Leading Farmers than all the other Agricultural Papers in Canada combined.

To every Practical Farmer it is worth ten times its cost. No Farmer should be without it.

It is the only Agricultural Paper in the Dominion Published and Owned by a Practical Farmer.

W. WELD, Editor and Proprietor.

ITS CONTRIBUTORS IN THE DEPARTMENTS OF
**THE FARM, STOCK, THE DAIRY, THE GARDEN & ORCHARD,
 POULTRY, VETERINARY, APIARY, THE MARKETS,
 THE FAMILY CIRCLE, &c., &c.,**

ARE THE BEST SPECIALISTS THAT CAN BE PROCURED.

The ADVOCATE is published in the interests of the Farmers alone, not for Speculators or Secret Organizations. Try the FARMER'S ADVOCATE for one year; you will never regret it. The right information in the right season.

THE HOME DEPARTMENT

WITH ITS

Useful Information, Pleasing Stories, Puzzles, etc.,

Is eagerly looked for by all members of the Family Circle, and this Department alone is worth more than the subscription price.

THE BEST FAMILY PAPER IN CANADA.

ONLY ONE DOLLAR A YEAR.

Sample Copies Free.

Address, - THE FARMER'S ADVOCATE, London, Ont., Canada.

PLEASE SEND THE FARMER'S ADVOCATE TO

Name,

Post Office,

Province,

Cut This Out.

Cut This Out.

The Ontario Mutual Life Assurance Co'y

HEAD OFFICE, WATERLOO, ONT.

Dominion Deposit - - \$100,000.

THE ONLY PURELY MUTUAL LIFE COMPANY IN CANADA.

Total Number of Policies in Force, Dec. 31, 1883, 5,241.

Covering Assurance to the Amount of \$6,572,719.71.

Total Net Assets, \$525,939.42.

Net Reserve to Credit of Policy-holders, \$482,177.47.

Surplus, \$43,761.95.

The rapid growth of the Company may be seen from the fact, that in 1870, the first year of its business, the total assets amounted to only \$6,216, while last year they reached the handsome total of \$533,705.55!

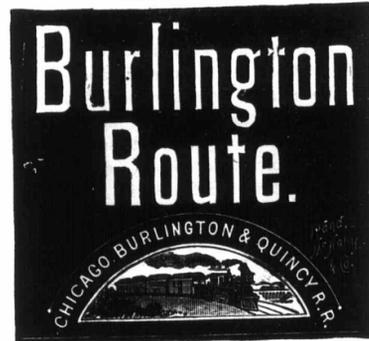
Every man who owes a mortgage on his property should have his life assured in "THE ONTARIO" for at least the amount he owes; his family is then secure in their property even should death cut off the head of the household. **Special Favorable Terms** given for such assurances.

"THE ONTARIO" invests nearly all its reserve funds in first mortgages on improved farms, interest annually at current rates, and expenses very low. Permission granted to pay off any part of the principal at the end of the third and any subsequent year.

Farmers requiring loans will do well to correspond with the Manager direct, who will quote best terms and make facilities easy to negotiate the loan. When writing give the number of acres and description of property, and state its cash value.

I. E. BOWMAN, President. W. HENDRY, Manager. W. H. RIDDELL, Secretary.

THE LINE SELECTED BY THE U. S. GOV'T TO CARRY THE FAST MAIL



GOING WEST.

ONLY LINE RUNNING TWO THROUGH TRAINS DAILY FROM

CHICAGO, PEORIA & ST. LOUIS,

Through the Heart of the Continent by way of Pacific Junction or Omaha to

DENVER,

or via Kansas City and Atchison to Denver, connecting in Union Depots at Kansas City, Atchison, Omaha and Denver with through trains for

SAN FRANCISCO,

and all points in the Far West. Shortest Line to

KANSAS CITY,

And all points in the South-West.

TOURISTS AND HEALTH-SEEKERS

Should not forget the fact that Round Trip tickets at reduced rates can be purchased via this Great Through Line, to all the Health and Pleasure Resorts of the West and South-West, including the Mountains of COLORADO, the Valley of the Yosemite, the

CITY OF MEXICO,

and all points in the Mexican Republic.

HOME-SEEKERS

Should also remember that this line leads direct to the heart of the Government and Railroad Lands in Nebraska, Kansas, Texas, Colorado and Washington Territory.

It is known as the great THROUGH CAR LINE of America, and is universally admitted to be the Finest Equipped Railroad in the World for all classes of Travel.

Through Tickets via this line for sale at all Railroad Coupon Ticket Offices in the United States and Canada.

T. J. POTTER, Vice-Pres. and Gen. Manager. PERCEVAL LOWELL, Gen. Pass. Ag't Chicago.

JNO. Q. A. BEAN, Gen. Eastern Ag't, 317 Broadway, New York, and 336 Washington St., Boston.

2-y

CANADA BUSINESS COLLEGE HAMILTON, ONT.

Affords the best facilities for obtaining a complete business education. Has the best staff of experienced and successful teachers. The most magnificent college rooms in the Dominion. Course of instruction improved and practical. Ladies admitted to all departments.

A large 40 page Catalogue, specimens of penmanship and full particulars sent on application to

R. E. GALLAGHER, Principal.

Mention this paper.

WESLEYAN LADIES' COLLEGE HAMILTON, CANADA.

The oldest and the largest Ladies' College in the Dominion. Has over 180 graduates. Faculty, 5 gentlemen and 12 ladies. The building cost \$110,000, and has over 150 rooms. Music and Art specialties. Pupils admitted at any time. Address the Principal.

MENTION THIS PAPER. A. BURNS, D.D., LL.D. 226-c

ONTARIO LADIES' COLLEGE Whitby, Ont.,

Affords an advanced collegiate course with the privilege of taking professional or University examinations; a full conservatory course in instrumental and vocal music under the direction of Mr. Edward Fisher, of Toronto; a fine arts course by two specialists from the Ontario Society of Artists; judicious training in home and social life by the lady principal, Miss Adams. Buildings and grounds unrivalled in the Dominion for elegance and completeness.

For calendar apply to Rev. J. J. Hare, M.A., Principal. 225-f

Ontario Business College BELLEVILLE, ONT.

Students in attendance from all parts of the continent and the West Indies. Course most thorough. Fees as low as in other first-class colleges.

Board only \$2.75 a Week.

Entrance at any time.

For circulars, &c., address

ROBINSON & JOHNSON,

225-c Belleville, Ont.



The NOVELTY RUG MACHINE

(PAT. MARCH 6th, 1882.)

Makes Rugs, Ties, Hoods, Mittens, Door Mats, &c.,

with ease and rapidity. Price only one dollar. Single machines, with full directions, sent by mail on receipt of price. Agents wanted. Apply for circulars to R. W. Ross, P. O. Box 541. Sole Manufacturer, Guelph, Ont. Also dealer in Rug Patterns. 225-f

BUSINESS EDUCATION!

HAMILTON COMMERCIAL COLLEGE.

Corner King and James Streets.

(Over Federal Bank.)

THIS INSTITUTION offers special terms and advantages to

YOUNG GENTLEMEN AND LADIES

desiring a thorough, practical Business Education. Its course of instruction embraces all the branches necessary to complete commercial training, and is second to none. Its teachers are well qualified for their work, and the number of pupils is limited to what can be properly attended to. Everything connected with the school is the newest and best. No old system has any place in its curriculum.

The location of the College is in the best spot in the city of Hamilton, overlooking the Gore Park. The rooms are large, airy and newly furnished throughout. It will pay to call before applying elsewhere.

Send for circular.

M. L. RATTRAY,

223-f PRINCIPAL.

Please Mention this Paper.

NIAGARA GRAPE VINES

A. M. Smith, of the Dominion Fruit Gardens, St. Catharines, Ont., is the only propagator of the Niagara Grape Vines for the Niagara Grape Co. in Canada, and he is authorized by the Company to dispose of a limited number of strong, two year old vines, to be delivered in the spring of 1885, for \$2.00 each.

All orders filled in rotation, and each vine will be under the seal of the Company. As the Company have never before sold unreservedly a vine or authorized its sale or propagation, any one offering it in any other way may be set down as a fraud.

Parties desiring to secure this valuable Grape, should apply at once to the undersigned,

A. M. SMITH, St. Catharines, Ont.

N. B.—A large assortment of other Grape Vines, small Fruits of all kinds, also Trees and Plants, for sale at the DOMINION FRUIT GARDENS, St. Catharines, Ont.

Send for Catalogue and Price List. 226-c

"CRASH!"

Until further notice is given,

A. B. POWELL & Co.

will sell the following goods at the prices given below, viz:

- Pure Wool Grey Chambray Flannels at 25c. per yard.
- Canadian Wool Bed Blankets, all to be sold by the pound, at 45c. per lb.
- Canadian Yarn, all colors, at 50c. "
- Fingering Wool Yarn, at 75c. "
- All \$1.15 Col'd Silks reduced to 75c. per yd.
- All \$1.25 Colored Duchesse Dress Satins reduced to 95c. "
- Dress Finishes, Dress Velvets, Broche Mantle Silks and Velvets, all to be sold at a small advance on cost.

N.B.—Send for samples. Goods ordered by mail expressed without delay.

Kid Gloves in every shade and make. Prices from 25c. to \$3.00 per pair.

Don't forget our address; Write for what information you desire in the way of Dry Goods, &c.

A. B. POWELL & Co.

THE GREAT KID GLOVE HOUSE, 134 Dundas Street, LONDON, ONT. 226-cx

1884

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Farmers

Farmer

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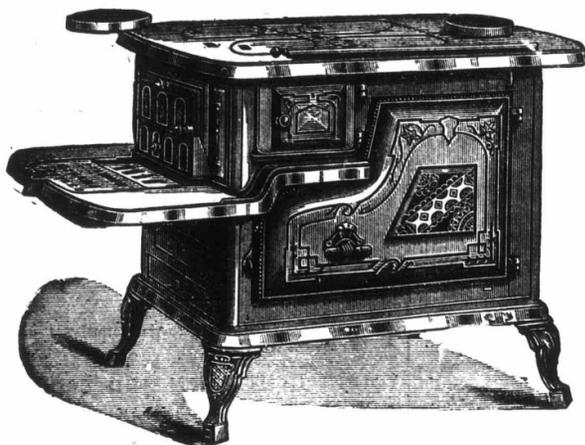
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Canada.

Cut This Out.

"The Standard"---"Champion."



The Cook Stoves for the Farmer.
LARGEST OVEN FOR THE MONEY IN
THE MARKET.

All perfect cooks on a moderate
consumption of fuel.

"THE ARGAND"

A coal-heating Stove, never
excelled for freedom from gas
and economy in heating.

ASK FOR THESE STOVES.

If you don't find them with
dealers write to us.

THE OSHAWA STOVE CO.

OSHAWA, ONT.

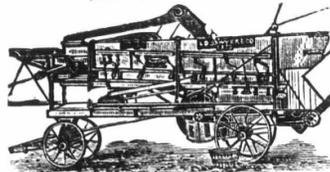
Holders of Highest Awards for
Stoves for Ontario and
Quebec.

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HAMILTON AGRICULTURAL WORKS

The Pioneer Threshing Machine
Works of Canada.

ESTABLISHED 1836.



Our Celebrated GRAIN SAVER is the Best and Most Perfect THRESHER and SEPARATOR
made in the Dominion, being first over all others for

**Durability, Workmanship, Fast & Clean Work,
Perfection of Parts, Ease of Management,
Simplicity of Construction, Light-
ness of Draft, Capacity for Work.**

We have Machines working in all parts of Canada, giving the very best satisfaction, when driven
by either Steam or Horse Power.

**It is a General Favorite with the Farmers, who prefer it
for Fast and Clean Work.**

SPECIAL MADE FOR STEAM POWER.

Address us for Circular and Price List of THRESHERS, CLOVER MILLS, HORSE POWERS,
REAPERS AND MOWERS. A personal inspection is solicited.

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L. D. SAWYER & CO.,
HAMILTON, ONT., CANADA

"THE GOLDEN BELT"

KANSAS LANDS STOCK RAISING **ALONG THE KANSAS DIVISION U. P. R'WAY.**
CORN and WHEAT **WOOL GROWING**
Buffalo Grass Pasture Summer and Winter. Unsurpassed for Climate, Grasses, Water.

FRUIT
The best in the Eastern Market.

200,000,000 Bus. Corn. 30,000,000 Wheat.
Pamphlets and Maps free. **B. McALLASTER**, Land Commis'r, Kansas City, Mo.

226-c

STOCK NOTES.

(Continued from page 345.)

In the United States there are 15,000,000
native cows against 100,000 thoroughbreds,
that is a ratio of 1:150.

Dr. McEachran, in his inaugural lecture before the students of Montreal Veterinary College, in referring to cattle disease, says: "How, then, comes it that this fell plague has been allowed to make its slow but certain progress westward? Simply this—gigantic railroad enterprises have, at an enormous cost in money, covered the United States as an iron network, and in many instances the bulk of their earnings is derived from the live stock trade, besides wealthy corporations are organized and net large profits from stock yards. Any hindrance, such as quarantine regulations properly enforced would necessarily produce, was consequently opposed by such corporations, and thus the fight went on; the carrying companies and stockyard owners opposing any interference with the free and untrammelled movement of stock from west to east or from east to west, had always influence enough to over-ride the feeble efforts made by a few stockmen—as so far no united effort has been made by the cattlemen of the west, as they have not even yet been sufficiently aroused to exert their influence in the protection of their hundreds of millions of property. But they will soon find it necessary to do so, or see themselves beggared by the results of their own too long-suffering carelessness in allowing carrying companies to sacrifice their property. It is true also that complications present themselves in applying federal regulations which are not seconded by state legislation, but true it is that when the cattlemen of the west get awakened to a sense of their danger, they will bring such influence to bear that no government can stand in opposition to their wishes.

The Tribune and Farmer says:—The health of a horse, like that of a man depends very much upon a natural system of life. Artificial systems require double the care, and however sleek the horse may look under a heavy coating of blankets and an occasional medical "dope," his capacity for endurance is much less than that of a horse which, however rough he may look, has nerves and endurance built only upon regular, natural food and exposure to the varied changes of the atmosphere.

It may be all very well for the fancy to clip the hair all off from the horse and then cover him with clothing in order to have his coat look fine and smooth, but it will not do for the horse of all work. Nature has provided a covering, and where use is designed, the horse needs only that with good grooming and a warm stable; or if a blanket is ever used let it be done whenever the horse is left standing out of doors in harness.

Make the stable as warm as a dirt floor or battened boarding will permit; give plenty of bedding, and with abundance of food the horse is better able to stand labor and exposure than if kept on a board floor where cold air circulates underneath and covered with blankets. Our experience is in favor of dirt floors without blankets. Dirt floors well littered are no more trouble to keep neat and clean than board floors, and no stable with a dirt floor and decently boarded up will ever be cold enough to cause a horse to shiver.

(Continued on page 350.)

DeLAVAL CREAM SEPARATOR

The Greatest Dairy Invention of the Age!

Awarded Thirty-two Gold Medals!

By this system the cream can be separated from the milk immediately after it comes from the cow, consequently the use of cream and milk 24 to 36 hours earlier than by any other process.

No ice or expensive buildings necessary.

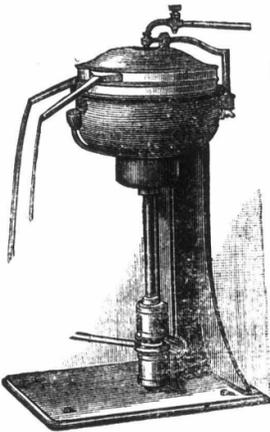
No heavy foundations required.

For further particulars please address

FRANK WILSON,

19 St. Peter Street, or P. O. Box 1824, MONTREAL, CANADA.

General Manager DeLaval Cream Separator Company of Canada.



The construction is simple and the apparatus easily cleansed.

With less than one-horse power it will skim the cream from 750 to 800 pounds of milk per hour.

The DeLaval Cream Separator is now in use in the best dairies and creameries in Europe and the United States.

Ameliasburg, Ont., May 29th, 1884.

MR. FRANK WILSON, Manager DeLaval Cream Separator Company of Canada.

DEAR SIR,—We got the Laval Separator ready on Saturday, and used it that evening. We have run it every morning this week. We run through ten to twelve hundred pounds of milk in about one hour and twenty minutes to one hour and thirty minutes. We are pleased with it; it more than meets our expectations. We can discount any record you have given in any of your descriptive catalogues or circulars—do more milk per hour and get more butter from same quantity of cream. We are sure that we are taking over 25 per cent. more butter from the milk than we ever could get by setting Coley process. There is no use talking about the old slow and uncertain process, this is a sure thing and it is only a matter of very short time when setting milk for cream will be looked upon as out of the question. Will send you actual record of this week's work as soon as possible.

Yours truly,

JOHN SPRAGUE.

Bloomfield, Ont., Sept. 3rd, 1884.

FRANK WILSON, General Manager DeLaval Cream Separator Company of Canada.

DEAR SIR,—I am running the two DeLaval Cream Separators purchased from thee with perfect satisfaction. One has been in operation fifty and the other thirty days. They sit as close together as the bottoms will let them, and our driving belt drives the intermediate that runs both separators. One hand can attend them both, and the engine easily. I would not attempt to make butter without them. The quality is pronounced by all to be the best they ever used.

Yours truly,

LEVI BOWERMAN.

Stockwell, P. Q., Oct. 14th, 1884.

FRANK WILSON, General Manager DeLaval Cream Separator Company of Canada.

DEAR SIR,—After a thorough test of the DeLaval Cream Separator I have no hesitation in saying it will do all you claim for it, and have much pleasure in recommending it to the dairymen of Canada.

Yours very truly,

WM. SAUNDERS.

Sunnyside Stock Farm, Stanstead, P. Q., June 17th, 1884.

MR. FRANK WILSON, Manager DeLaval Cream Separator Company of Canada.

DEAR SIR,—The Separator is running very nicely, separating the cream from the milk as thoroughly as ever was done by cold water setting, and saving the labor of cleaning a large number of cans. It is run part of the time by a boy of fifteen years old, and he has no trouble in managing it. The cream is always sweet and clean.

Yours truly,

G. A. PIERCE.

STOCK NOTES.

(Continued from page 348.)

Mr. T. G. Nankin, Merivale, Ont., has added to his choice herd of Ayrshires, two cows, Annie Laurie and Susie Jane, purchased from Mr. Joseph Yuill, of Carleton Place.

Messrs. Foster & Sotham, of Flint, Michigan, have purchased from the estate of the late Mr. Bridges of Barrie, Ont., three imported Hereford cows, and two bull calves.

The 4-year-old bull, Chivalry, winner of two first prizes and two silver medals at the Industrial this year and last, as the best bull of any age, imported and owned by Messrs. Hay & Patton, was purchased by Messrs. Mossom, Boyd & Co., of Big Island Stock Farm, Bobcaygeon.

Mr. Jas. I. Davidson, Balsam, Ont., has made one of the largest purchases from the famous Sittyton herd ever made for importation to Canada, no fewer than 40 animals having been despatched in one shipment. One half was composed of yearling bulls and the other half females, three being two year olds and the remaining 19 heifer calves. The lot embraced 16 different strains of blood.

Mr. James Glennie, Gourock P. O., has recently made the following sales of Shropshire-down sheep: To Wm. Barbour, Welesley Tp., 1 imported 2-shear ram; D. G. Haumer, Brantford, 1 pair imported ewes; J. Colter, Puslinch, 1 pair imported ewes; Snell & Sons, Clinton, 1 ram lamb (1st prize at Western Fair); T. D. Hodgins, London, 1 pair imported ewes and 3 ewe lambs; J. Wright, London, 1 pair ewe lambs; H. Bell, Erin, ram and ewe lamb; T. Herrtage, Brussels, Ont., 1 ram lamb; J. Hartshorn, Manitoba, 3 ram lambs; Justin & Son, Streetsville, 1 ewe lamb. Mr. Glennie won six prizes at the late Western Fair for his Shropshires, and has a number of valuable animals for sale. See his advertisement.

Scours in calves are apt to occur in the fall, but the attacks are usually not so severe as in the spring. The cause is chiefly due to violent changes in diet. Of course the best cure is to remove the cause; but in severe cases, in which immediate relief is the object, the following dose will be found effective: First give the calf one-half pint linseed oil and a tablespoonful of turpentine as a drench; then give three times a day two tablespoonfuls of the following mixture: Tincture of opium, two ounces; tincture of cardamomus, two ounces; carbonate of soda, two ounces; water one-half pint.

No one who has been accustomed to handling horses can help noticing the social inclination of this noble animal, and more especially is this true among young things. Colts seem to thrive best when in pasture or in a stable with others, and breeders often find it to their advantage to have several in a paddock together. Again, a horse which is kept entirely by himself will naturally become more snappish and disagreeable than one that has always been in company with other horses. This is the observation of many thinking horsemen, and no doubt there is something in it.

227-f

FAY CURRANT HEAD CRAPES

BEST STOCK IN THE WORLD

SMALL FRUITS AND TREES. LOW TO DEALERS AND PLANTERS. EVERYTHING FIRST-CLASS. FREE CATALOGUES. GEO. S. JOSSELYN, FREDONIA, N. Y.

The Best Test of a Plow is the Work it Does in the Field!

At the Provincial Plowing Match held on the Burtch Farm, near Woodstock, on the 26th Oct., 1884, the following Prizes were awarded to Plowmen working with Plows made by

The AYR AMERICAN PLOW COMPANY, Limited

SULKY PLOWS.
George Cunningham, Dumfries, with a Buford Sulky, First Prize; William Hester, Ayr, with a Buford Sulky Plow, Second Prize; J. R. Lane, Ayr, with a Buford Sulky Plow, Third Prize.

JOINTER PLOWS.
Robert Cranston, jr., Dumfries, with a \$23 Plow, First Prize; William Meikle, Dumfries, with a \$10 Plow, Second Prize; Charles Knight, Dumfries, with a \$23 Plow, Third Prize; James Adams, Dumfries, with a \$23 Plow, Fourth Prize.

The "Buford" is undoubtedly the best made Sulky Plow in Canada, and best adapted to the wants of Ontario farmers. Any boy who can drive a span of horses can handle it.

The \$23 Chilled Jointer Plow has proved a wonderful success. Every farmer who has tried one will use no other Jointer.

For Catalogues and Prices apply to

THE AYR AMERICAN PLOW COMPANY (Limited)
AYR, ONTARIO.

JOHN WATSON, President.

227-a

J. CAVERS, Secretary.



OLDS' PATENT
1, 2 AND 3 HORSE-POWERS AND SEPARATORS
The leading Threshing Machine in the Dominion. Will do almost double the work of the old style mills. Send for Pamphlet to **B. W. OLDS & CO., 174 Mullins St., Point St. Charles, Montreal.**
Or to **LARMONTH & SONS, General Agents, 33 College St., Montreal.**
Or to **W. S. CASSON, General Agents for Frost & Wood, Truro, Nova Scotia.**
Our Powers, formerly made at St. Albans, are used to operate the Laval Cream Separator. 223-f

THE BAIN WAGON



IS THE FARMER'S FAVORITE.

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

Agents wanted for every county. Send for descriptive circular and prices to the
BAIN WAGON COMPANY, WOODSTOCK, ONT.
N. B.—We make a specialty in spring wagons. Prices given on application. 225

SMALL FRUITS

Cornelia, Daniel Boone, Prince of Berries
Atlantic, Connecticut Queen, James Vick and other,
new and old Strawberries.

Marlboro, Beebe's, Golden Prolific, Souhegan,
Tyler, Hopkins, Shaffers, Hansell and other leading
Raspberries.

Early Cluster Blackberry,
Fay's Prolific Currant,
Gooseberries, Grapes, and other Small Fruits.
FIRST-CLASS PLANTS. LOW PRICES
Send for full Price List, free to all.

W. W. HILBORN & CO.,
225-6t ARKONA, ONT., CANADA.

DERICK'S HAY PRESSES.



Manufactory at 90 College Street, Montreal, P. Q.
Address for circular P. K. DEDERICK & CO., Albany, N. Y.

SWISS SOAP!

Guaranteed Best in the World!
Ask Your Grocer For It!
Manufactured only by the
HURON SOAP COMPANY, Goderich, Ont
220-y

NIAGARA GRAPE VINES

No restrictions
as to planting.
First class two year vines \$2.40 each.
Grape vines of all the leading kinds at bottom prices,
small Fruit plants, old tried kinds and latest nov lites.
Russian Mulberry very cheap. Send a list of your wants
for quotations, and a free price list. E. D. SMITH
Winona, Ont. 226-1f

BUY ONLY THE DOHERTY ORGAN

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VIENNA BAKING POWDER



S. H. & A. S. EWING
Proprietors & Manufacturers
57 & 61 ST. JAMES ST
MONTREAL.

C. M. Patney
For Sale by all Grocers
215-y.

"The leading denominational paper in Canada." - N. Y.
Christian-at-Work.

THE CANADA PRESBYTERIAN,

PUBLISHED EVERY WEDNESDAY BY THE
PRESBYTERIAN PRINTING AND PUBLISHING CO.,
AT 5 JORDAN ST., TORONTO.

Terms—\$2 Per Year, in Advance.

The PRESBYTERIAN is recommended by the General
Assembly as well worthy the hearty support of the mem-
bership. For 1885—13th year of publication—new and
interesting features will be introduced, while old and
valued departments will be continued with increased
efficiency.

Advertisers will find THE PRESBYTERIAN a useful
medium. Write for rates.
C. BLACKETT ROBINSON, Toronto.

The Farmer's Advocate and The Canada Presbyterian

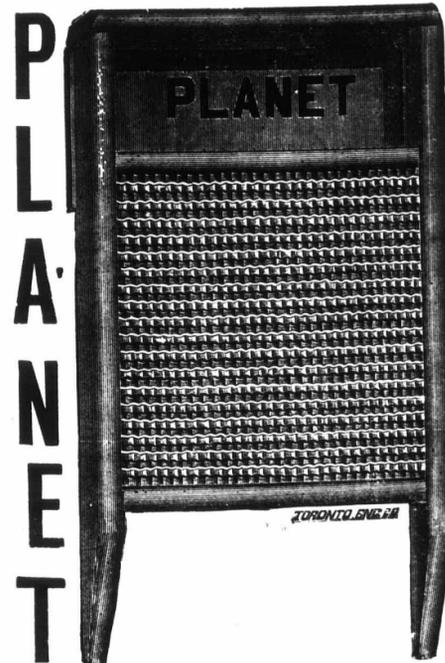
Are Clubbed at the Low Price of \$2.50,
Balance of the Year Free. 22



NATIONAL PUMP WORKS, 637 Craig St., Montreal.
J. A. McMartin & Co., Manufacturers of Pumps,
Windmills, Fire Engines, Hydraulic Rams, etc. Illus-
trated Catalogues on application. 220-c&x

WASHBOARDS

THE BEST IS THE CHEAPEST.



—THE— PLANET

IS THE BEST.

ASK FOR IT AND TAKE NO OTHER!

SATISFACTION GUARANTEED

Saves Time, Labor and Soap

E. B. EDDY,
HULL, P. Q.

Manufacturer of
PAILS, TUBS, WASHBOARDS and MATCHES

All goods manufactured by me bear my name
and are guaranteed to be the best in the market.
E. B. EDDY

WHOLESALE AGENTS:

H. A. NELSON & SONS, TORONTO and MONTREAL.
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INTERCOLONIAL RAILWAY

The Great Canadian Route to and
from the Ocean.

For Speed, Comfort and Safety is
Unsurpassed.

Fullman Palace, Day and Sleeping Cars
on all through Express Trains.

Good Dining Rooms at Convenient
Distances.

NO CUSTOM HOUSE EXAMINATION.

Passengers from all points in Canada and the Western
States to Great Britain and the Continent should take
this route, as hundreds of miles of winter navigation are
thereby avoided.

IMPORTERS and EXPORTERS

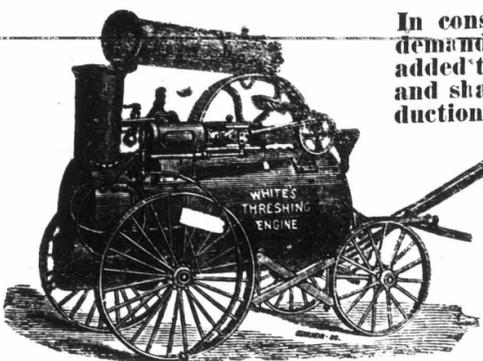
will find it advantageous to use this route, as it is the
quickest in point of time, and the rates are as low as by
any other.

Through freight is forwarded by FAST SPECIAL
TRAINS, and experience has proved the Intercolonial
route to be the quickest for European freight to and
from all points in Canada and the Western States.

The Pullman cars which leave Montreal on Monday,
Wednesday and Friday, run through to Halifax without
change, and those which leave Montreal on Tuesday,
Thursday and Saturday run through to St. John, N. B.,
without change.

Tickets may be obtained, and also information about
the route, and about freight and passenger rates from
R. B. MOODIE, Western Freight and Passenger Agent,
93 Rossin House Block, York St., Toronto, and E. DE
LAHOOKE, Ticket Agent, No. 3 Masonic Temple, Lon-
don.

D. POTTINGER,
Chief Superintendent, Moncton, N. B.
Railway Office, Moncton, N. B., 10th December, 1883.
217-M



219-y

In consequence of the increased demand for my ENGINES, I have added to my shops and machinery, and shall largely increase the production of engines for 1884.

It is licensed by all Insurance Co.'s and has proved itself to be the most durable.
 The Engine for the Northwest is made to burn either coal, wood or straw. Farmers, procure a Genuine White Threshing Engine at the Forest City Machine Works, London, Ont., Can.
GEORGE WHITE, Proprietor and Manager
 H. B. WHITE, Supt. of Machinist Dept.
 A. W. WHITE, Supt. of Erecting Dept.
 H. B. J. WHITE, Secretary-Treasurer.
 F. J. WHITE, Assistant-Secretary.
 The engines may be seen at Van Tassal's foot bridge warehouse, Belleville.

ONTARIO PUMP CO., Limited,
TORONTO, ONT.,

MANUFACTURERS AND DEALERS IN

Wind Mills, I. X. L. Feed Mills, Hay Carriers, Horse Hay Forks, Tanks, Double and Single Acting Pumps, Wood or Iron. Also Steam Pumps and Water Supplies, Iron Pipe and Pipe Fitting, all kinds.

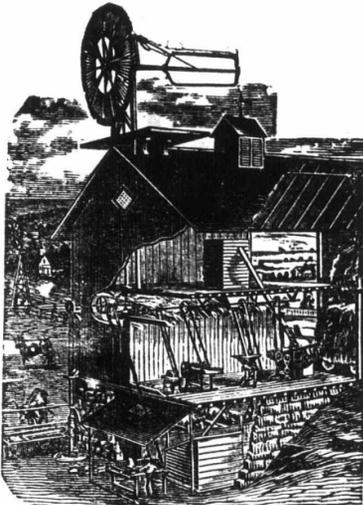
STATE WHAT YOU WANT AND SEND FOR ILLUSTRATED CATALOGUES.



Halladay's Standard Wind Mills, 17 Sizes.



Pumps—Iron & Wood. Force or lift. Deep Geared Wind Mills, for driving Machinery, Pumping Water, &c. From 1 to 40 horse power.



March 14, 1884.



I X L FEED MILLS. The cheapest, most durable and perfect iron feed mill ever invented.

ONTARIO PUMP CO.,

Gentlemen,—In regard to the 16-foot geared Wind Mill I bought of you, I can say it more than fills my expectations in every respect. In a fair to good wind I can saw wood at the rate of four cords of hard wood per hour, cut once in two. In a stiff wind I open the fans just half way and get all the power I require. In regard to your feed mill it is just grand. I have ground peas and oats at the rate of a bushel in three and a half minutes, and ground it as fine as one would wish for. I can grind fine cornmeal, also Graham flour. Have ground, since the 15th of February, 325 bushels of grain for customers, besides doing my own work with it. One man brought a grist of screenings, such as small wheat, mustard, and pussy grass seed, thinking that I could not grind it; but I ground it to powder, looking just like ground pepper. Your 13-foot geared mill, I think, is quite large enough for any farmer to do his own work.

Yours truly, EDWIN KEELER, Maitland P. O.

DR. W. E. WAUGH—Office, The late Dr. Anderson's, 275 Bident Street, LONDON, ONT.

FIRST-CLASS ENGRAVING
 DESIGNS SUPPLIED IN WOOD.
TORONTO ENGRAVING CO.
 17 KING ST. (BRIDGEN & BEALE) COR. YORK ST.

FARMS FOR SALE

In Western Ontario a number of choice Farms. Full description list sent on application. Correspondence invited, full information given, and on personal application at my office, plans of the townships shown, enabling strangers to see the position of properties and their proximity to towns, railway stations, &c. Farms with acreage to suit every one. Send to

CHARLES E. ERYDGES,

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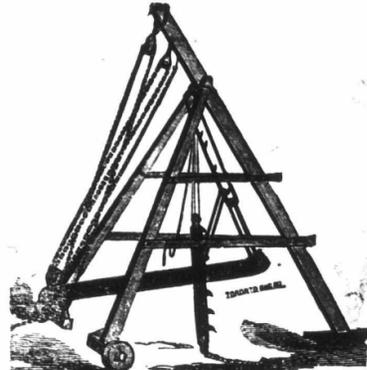
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