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The Farming World



AND CANADIAN FARM & HOME

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ON January 1st, only about two weeks ago, we announced a reduction in the subscription price of *The Farming World*. Already several thousand farmers, in all parts of the Dominion, have responded, and the indications are that our list of readers will be doubled at an early date.

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Devoted to Country Life in Canada

J. W. WHEATON, B.A. - - - Editor

D. T. McAINSH, Manager

The Farming World is a paper for farmers and stockmen, devoted to country life in Canada, published on the 1st and 15th of each month, with illustrations.

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Eastern Agency of "New-West Farmer."

Always mention *The Farming World* when ordering advertisements. It will usually be an advantage to do so.

PUBLISHER'S DESK

A Fine Puzzle

Our readers can secure one of the "20th Century Puzzle" by sending a two-cent stamp to E. W. Gillett Co. Limited, Toronto, Ont., and mentioning that they read about it in this paper. There will be considerable amusement for the children as well as for the older people in trying to solve this fine puzzle.

Business Education

The demand for practical business education is increasing from year to year in keeping with the rapid commercial development of our country. Special schools for business training are now to be found in nearly every city and town, but among such institutions there seems to be none to compare with the famous Central Business College of Toronto, which during the past ten years has been doing so much for the welfare and success of the hundreds of young men and women who attend this college each year.

This school employs a regular staff of twelve teachers, and while the enrollment of students last year exceeded one thousand in number, it was found quite impossible to supply all the demands made upon the management by business men all over the land for competent office help.

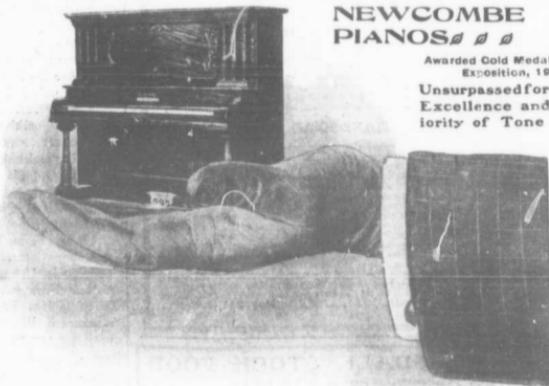
The several departments are again well filled with earnest, ambitious students, and this year bids fair to become the most important in the history of this excellent college. Graduates and senior students are being sent out each week into business appointments, leaving room for new students, who are admitted at any time throughout the year. The latest catalogue of this college, entitled "The Story of a Business School" is most instructive and interesting, and may be obtained by postal request.

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Exposition, 1900

Unsurpassed for General
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iority of Tone Quality

Write for New Descriptive and Illustrated
Catalogue No. 20

The Newcombe Piano Co., Limited, Bellwoods Avenue, Toronto

Received Diplomas

The following passed the Ontario Veterinary College examinations on Dec. 22nd last and were awarded diplomas.

Graduates—Charles W. Bandy, Litchfield, Ill.; C. F. William Bauer, St. Louis, Mo.; Anson W. Beach, Iroquois, Ont.; Henry M. Berthiaume, Woonsocket, R. I.; William J. Boddy, Walkerton, Ont.; Thomas E. Bowes, Casper, Ont.; George Bulgin, Elmira, Ont.; William S. King, Katonah, N.Y.; Jas. McDermaid, Harriston, Ont.; William H. Mahoney, Rochester, N. Y.; James Henry Mann, Grand Valley, Ont.; P. Ernest Pallister, Ottawa, Ont.; Thomas A. Parker, Lynn, Mass.; Daniel J. Selfert, Linwood, Ont.; John E. Taylor, Toronto, Ont.

Farm Separators

A most attractive piece of printing has just reached us through the mail. It is a new illustrated descriptive catalogue of the De Laval Cream Separators, showing the construction and workings of their different machines. Each style of machine is carefully described and the prices given. A copy of this handsome catalogue may be had free, by addressing the De Laval Cream Separator Co., York Street, Toronto.

Congratulations

"I must congratulate you on the great interest you have always taken in the farmer's welfare."

J. G. DAVIDSON,
Mulock's Farm, Newmarket.

**The Boys & Girls
and the
U.S. Separator**

Besides bringing much greater profit to the farmer, the U.S. has bettered the condition of his wife and children. It relieves their drudgery as no other machine does; gives the mother more time for her children; allows the children more time to go to school and fit themselves for the success that education brings on the farm or in other walks of life.

"Twenty minutes after milking—the skim milk, fresh, clean and warm, is ready for the calves—ten minutes later the U.S. is washed—the work is done that formerly kept me and the children slaving from one milking to the other"—this is how one farmer's wife sums up the U.S. as a labor-saver.

One bright girl, speaking of the U.S., which replaced the cumbersome machine of many parts that had been used, said: "Why, it's the same as washing dishes for two and for forty." **The U.S.** not only makes more and better butter for the farmer, which means more cash, but it makes life easier for his wife and children, which means health & happiness.

For Manitoba and the West we transfer our Separators from Chicago and Minneapolis, and for Eastern Provinces from Quebec, Sherbrooke, Montreal and Hamilton.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.



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For Cattle, Horses, Sheep and Hogs

The following letter from the owner of the Famous Lyndhurst Stock Farm, of Canning, Nova Scotia, is presented for the consideration of Stock Breeders and Feeders:

Canning, N. S., Dec. 18, 1903.

Clydesdale Stock Food Co., Toronto, Ont.

Dear Sirs, In answer to your inquiry regarding results obtained from feeding your Stock Food to preparing a number of pure-bred "Shorthorn" cattle for sale and the show ring. I am pleased to state that the results obtained were marvellous and greatly beyond our expectations, not only in the extra weight obtained, which shows a great flesh producer, but the cattle at once began to show a sleekness and softness of both hide and hair, and extra with calves at a larger dose of milk, which in consequence gave the calves a great development and fine finish. These cattle in coming direct from our pasture naturally would make a poor progress on any other feed, but the progress of the herd in the few days of feeding fully convinces us of the superiority of the food over any other that we have heretofore used, and we have no hesitation in highly recommending it to feeders and breeders. Very truly,
A. G. HARRIS, Lyndhurst Stock Farm, Canning, N. S.

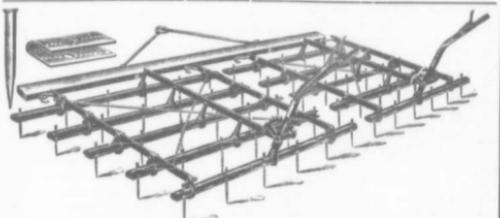
Weights gained in one week, from Dec. 7th, to Dec. 14th, 1903.			
Boothful Girl.....	Dec. 7th, 1380,	Dec. 14th, 1460	Gain 80 lbs.
Merry Maid.....	Dec. 7th, 1180,	Dec. 14th, 1260	Gain 80 lbs.
Nonpareil Violet.....	Dec. 7th, 1380,	Dec. 14th, 1570	Gain 80 lbs.
Laura Forest.....	Dec. 7th, 1330,	Dec. 14th, 1520	Gain 80 lbs.
Golden Pansy.....	Dec. 7th, 1180,	Dec. 14th, 1270	Gain 80 lbs.
Maid of Balsam.....	Dec. 7th, 1190,	Dec. 14th, 1130	Gain 80 lbs.
Scottish Knight.....	Dec. 7th, 1770,	Dec. 14th, 1850	Gain 80 lbs.

The above prices cattle were on exhibition during November and December, 1903, at the Junction Stock Mart, and the above marvellous results were given out publicly and will be confirmed by the weighmaster as well as by the owner of the cattle, L.G. Harris, Canning, N.S.

Write us for booklet describing disease common to horses and cattle. Mention The Farming World.

HERCULES POULTRY FOOD and CLYDESDALE VETERINARY PREPARATIONS. **CLYDESDALE STOCK FOOD COMPANY**
15 Elizabeth Street, Toronto, Canada

Blaine Patent Boltless Lever Harrow



IS THE BEST HARROW ON THE MARKET.

Ask your dealer for a Set, and take no other. If he won't supply you, write us and we will fill your order direct from the factory. See description on page 60, of this issue.

THE BLAINE HARROW MFG. CO., Limited
48 Richmond St. West, Toronto, Ont.

TABLE OF CONTENTS

Our Dairy Interests.....	53
Keep Out Inferior Stock.....	53
Accessories to the Meat Trade.....	54
Protecting the English Breeder.....	54
Stallion Inspection.....	54
Poor Railway Service.....	54
Animal and Plant Breeders.....	54
Have the Farmer Represented.....	55
Farmers' Institute Report.....	55
Horse Breeders' Grievances.....	55
Sheep and Wool Decrease in 1903.....	55
Manitoba Agricultural College.....	55
Government Should Lend Assistance.....	56
Why Are So Few Sheep Kept?.....	56
Agricultural College Work in Canada.....	56
Breeding Qualities of Young and Old Sows.....	57
The "Large Black" Hog for Bacon.....	57
Hauling Out Manure in Winter.....	57
Prince Edward Island.....	58
In and About Quebec.....	58
Syndicating Pure-bred Bulls.....	59
A Handy Farm Truck.....	60
A Handy Gate.....	60
The Tools Upon the Farm.....	60
A New Harrow.....	60
Dairying Has Progressed.....	61
Workers in Women's Institutes.....	64
THE HOME WORLD	
Every Year.....	65
Our Queen at Home.....	65
The Way of the Good Woman.....	65
Hickory: a Tale of the Lakes.....	66
Sunday at Home.....	68
The Boys and Girls.....	69
Health in the Home.....	70
In the Kitchen.....	71
In the Sewing Room.....	72
Making Higher Standard for Canadian Apples.....	75
Keeping Cabbage in Winter.....	75
Analysis of Kno-Bug.....	75
How the Germans Prepare Land for Sugar Beets.....	75
Feeding Bees in Winter.....	76
Barred Rock Club.....	76
Eggs for Hatching.....	76
Moisture on Walls and Floors.....	76
A Train Load of Turkeys.....	76
QUESTIONS AND ANSWERS	
Cut on Horse Foot.....	77
Scaling a Log.....	77
Warts on Colt.....	77
Blind Stagers.....	77
Sow With Stagers.....	77
ABOUT RURAL LAW	
Wife Claims for Wages.....	77
Purchase of Sow.....	77
Injured on the Street.....	77
Educational Features at Amherst.....	78
Farm Book-keeping.....	79
Books and Bulletins.....	79
In British Columbia.....	80
Nova Scotia Farmers' Association.....	80
Students Judging at Chicago.....	80
Correction.....	80
Clydesdales for Canada.....	81
Horses Sell Well.....	81
The Holstein Breeders.....	81
Farming World Man on the Wing.....	81
American Leicester Association.....	84
Ontario Veterinary Association.....	84
Market Review and Forecast.....	85
Quotations at a Glance.....	85

The Farming World

And Canadian Farm and Home

Vol. XXIII

TORONTO, 15 JANUARY, 1904

No. 2

Our Dairy Interests

AN industry that brings in from \$30,000,000 to \$35,000,000 annually is no small factor in the country's prosperity. Somewhere between these figures will be found the value of Canada's exports of butter and cheese for 1903. An industry of this magnitude involves no small responsibility upon those concerned with its progress and development. It will not run itself. The greatest skill and care must be exercised in keeping up and improving the quality.

That the dairymen realize their responsibility as they never did before, was shown by the splendid gathering at Belleville last week. Those present were there not for fun and entertainment, but to discuss problems of manufacture and to learn from one another how to overcome difficulties and better equip themselves for future effort. The best methods of caring for milk, of improving quality by careful inspection and instruction, and of preserving the finished article in the best possible condition till it reaches the consumer, were fully dealt with, and the dairymen of Eastern Ontario should be better equipped for the work of 1904.

The great feature of the work of the past season was the splendid system of syndicate instruction so successfully carried on. So successful was this, and so great the demand for instructors that the Association finds itself at the end of 1903 about \$3,000 in debt. This deficit should, however, be made up by an increased Government grant. There were over 500 factories grouped in the syndicates and the number will be largely increased during 1904. Therefore, not only will the Government have to come to the rescue to meet the deficit, but a largely increased grant for 1904 will have to be made.

Cheese was the important topic for discussion at the convention. While as much prominence as possible should be given to this subject, the butter-making side of the business should not be neglected. Only on the last day of the convention was any special attention given to butter-making, and that only in a half-hearted way. Butter-making is an important part of Canadian dairying, and if more attention were given to it at our dairy conventions it would develop more in the country. The dairyman should have more than one string to his bow.

The transportation side of the business is of the utmost importance. Though considerable has been done in the way of refrigerator and ventilated cars, refrigerator compartments and cooling rooms on ocean steamers, perfection has not been reached in any one

of these particulars. In the case of ocean transportation and the handling and caring for the product on the docks on both sides of the Atlantic a great improvement is needed. We understand that an increase of 45 per cent. is made in the charge for carrying butter in refrigerator compartments, over the ordinary charge, and this after the steamship companies have received tens of thousands of dollars from the government to assist in fitting their vessels for this work. After the plant is once installed it surely will not cost 45 per cent. extra to operate it. There is a weakness at this end of our transportation system that should be looked into.

Keep Out Inferior Stock

Is it not about time that something were done to keep out the inferior breeding stock that is coming into

Our Poultry Number

The February first issue of THE FARMING WORLD will be our annual poultry number. Special matter and special illustrations are in course of preparation and we can promise a good practical issue on that date.

Advertisers desiring space in that issue should make application at once. The number will be specially valuable for reaching poultry farmers in all parts of the Dominion. A small advertisement in our cent a word column is sure to bring results. Try it for the poultry number.

Copy for THE FARMING WORLD should reach this office not later than the 10th and 25th of each month for the issues immediately following. Will our advertising friends please remember this?

Western Canada from the States to the south of the line? This grievance, and it is a serious one, has been in existence for several years and seems to be growing more acute as the years go by, and yet no definite action has been taken by the Government to remedy matters. Surely this condition of affairs will not be allowed to continue.

The regulations as at present enforced, allow inferior stock with any kind of a registration certificate to be admitted by the customs authorities. The worst offenders are a number of breeders of Percheron horses, whose stock, not eligible for registration in the recognized Standard Herd Book of the United States, are, because they are registered in some mongrel herd book, allowed into Canada free of duty.

If we understand the spirit of our horse breeders aright, and we think we

do, they are quite willing that good breeding stock shall be imported into Canada so long as the stock so imported is eligible for registration in Canadian herd books, or are registered, or are eligible for registration in the standard books in the United States, recognized in this country. But they are not willing to submit to Canada, and especially the West, being made the dumping ground for a lot of inferior breeding stock, that are of no use to this country or any other country. This class of stock has been imported into the West by the hundreds the past year or two, and is not only working to the injury of the horse industry of the West, but putting our breeders to unfair competition. In the Western States there are said to be nearly as many records for certain breeds of horses as there are families in those breeds. It is not fair, therefore, that these "spurious" records should be recognized by Canadian custom authorities, and every animal with a certificate allowed in free of duty.

Another grievance that the Westerners have is that the Canadian customs officers along the line in the West are not sufficiently informed as to what a proper pedigree is, nor are they sufficiently informed as to what records are reliable and what are not. In other words, many of the inferior horses are allowed in, more through ignorance of proper records than a weakness of the regulations. If properly qualified inspectors were employed to look after this matter during the importing season the grievance would not be so serious.

But, however this may be, the regulations should be such that no animal unless recorded in some herd book, recognized as a standard in the country, could get in free of duty. A taste of the regulations the Americans are now enforcing in regard to Canadian pure-bred stock entering their country, would be only fair and just to the Canadian breeder.

While the Government is at it they should consider another matter of, perhaps, equal importance. That is the bringing in of cheap, trashy ponies or bronchos, that not finding profitable sale in their own land, are brought into Canada by the thousands every year. They do neither the country nor the fellow, who invests his \$25 or \$30 in one, any good. We understand that the number brought in during 1903 was away up in the thousands (nearly 30,000, so it said), and these are allowed at a merely nominal duty of from \$3 to \$5 each, according to valuation. The remedy is to raise the minimum of valuation to at least \$100 per head on all horses coming into Canada, or better still, to the

American minimum of \$150 each. This would effectually shut out the trashy stock and allow into this country only such animals as would prove of value on the farm or elsewhere.

Accessories to the Meat Trade

While the dressed meat trade is a big question that should receive every consideration at the hands of those undertaking it, there can be no doubt that its establishment would mean much to Canada at this juncture. Not only would it be the making of the great cattle industry of this country, but other industries of more or less importance would grow up around it. In Chicago a few weeks ago we were handed a little folder distributed by one of the great packing houses of that city. The following extract therefrom shows what becomes of the non-edible parts of a beef carcass:

Horns—For combs and handles, and for making fertilizer and glue.

Hoofs—For knife handles, buttons and fancy articles, the inferior grades being converted into fertilizer.

Hides—Trimmed, salted and packed, and then sold to tanneries.

Blood—The first flow is caught and taken to the albumen factory. Albumen is used for holding dyes, making paints and clarifying sugar. Blood not retained for albumen is used for high grade fertilizer.

Intestines—Such as are valuable, are used for sausage casings. Others are used for shipments of lard, others by potty-makers, and some by gold-beaters.

The accessories, while small in themselves, in many cases mean the whole profit in the business to the great American packer. By having these by-products to dispose of and to convert into the varied and useful articles named, he is able to pay more for the live animal than he otherwise would. In this will, to a large extent, be found the explanation of the higher price paid for the animal on foot in the United States than in Canada, where only live cattle exports and the local markets form an outlet for our beef cattle products.

Protecting the English Breeder

Our Scottish correspondent, "Thistle-down," in dealing with the cattle embargo question in last issue, candidly admits that the reason Canadian store cattle are not admitted to the United Kingdom is because the English breeder and stock raiser does not want them. Under present conditions the breeder is afforded such security that there is an increase in the number of cattle reared. The retention of the embargo is then not a case of keeping out disease but of protecting the British breeder from the competition that the admission of Canadian stores cattle would give him.

The real reason is out now, and Canadians know exactly where the British Government stands on this question. It is protection in its most aggravated form. The milder form of levying a tax or duty on the imported article is passed over, and our store cattle are shut out altogether. But as we pointed out a few issues ago, Canadians need

not feel grieved over it. There are other ways of benefiting our cattle trade more effectively than by having the embargo removed. It is up to our governments to bend their energies in another direction and enlarge the market for our cattle by securing the establishment of the dressed meat trade in this country on a large and extensive scale.

It may be said that our range cattle trade will not be benefited as much in this way as by the removal of the embargo. But that is open to question. There is a large amount of rough feed grown in the West and the quantity is increasing every year. Could not this be utilized for finishing range cattle for market? Moreover, why should all our Western wheat be shipped out of the country as wheat? Would it not pay to grind it into flour at home? This would save freight in conveying the product to the consumer and would leave the by-products, such as bran and shorts, for feeding at home. These, with the coarse grains grown, would go a long way towards finishing our range cattle for market. In this, as in other lines, the more products ready for the consumer we can turn out the better. We keep all the profit there is in the business in our own country.

Stallion Inspection

During his address on horse breeding, at Guelph, as noted in January 1st issue, Mr. W. S. Spark stated that he had been in consultation with the Hon. Mr. Fisher in reference to devising some plan for the inspection of stallions used for service in Canada. While nothing definite was stated as to what the proposed legislation, if any, would be, we gather from Mr. Spark's remarks that the subject is being seriously considered by the Minister and that something in the way of voluntary inspection, especially as to soundness, might possibly be provided for.

It is to be hoped the Minister of Agriculture will consider the matter favorably. Some provision for the proper inspection of stallions, voluntary or otherwise, is urgently needed in this country. Every breeder who understands his business, knows that it is not safe to breed to an unsound horse. And yet there are hundreds of stallions used every year that are unsound. It may be said that the farmer or breeder should not use these. But the average farmer or breeder is not a skilled veterinary surgeon and, therefore, not in a position to know whether the stallion he has selected for use on his mares is physically sound or not. Therefore, inspection by competent authority is necessary.

The voluntary plan, as hinted at by Mr. Spark, would provide for the owner to have his stallion inspected by a duly authorized person, and to receive a certificate as to his soundness on the payment of a certain fee. This would help to separate the "sheep from the goats," as it were, and enable the owner of the sound horse to get full value for that

quality. But why not go further and compel all stallions used to be examined as to soundness.

Another phase of the question is the inspection of stallions as to their breeding and conformity to type. Should there be inspection, voluntary or otherwise, on this point, is the question many will ask? While private enterprise and the right of the individual to do as he pleases should be considered, it does seem as if voluntary inspection by a properly qualified individual or body of men as to breeding and quality, would do good. It certainly could do no harm. By making the inspection voluntary, the stallion owner could take advantage of it or not just as he wished. It would put a premium upon good breeding and enable the average breeder to act intelligently in selecting a stallion. There is too much haphazard breeding in this country at the present time and anything that will tend to uniformly and system will greatly advance the business of horse raising in Canada.

Poor Railway Service

The reports of the late trains and inefficient service on the branch lines of railways in Ontario are too serious to be lightly passed by. It is these branch lines that more directly touch the farming community and it is this class that will suffer most by the delay. If the farmers' product is seriously delayed in shipment he suffers, and some one else gets the place in the market that should have been his. Business is injured all along the line, and while the business man of the back country town or village suffers most directly, the farmer also feels the effect.

The railway companies must wake up to the fact that this country is not a backwoods, where any kind of an old service will do. The railway equipment and service of twenty or even ten years ago will not do today. The trouble is that these back districts that are at the present time being treated so unfairly by the railways have progressed much faster than railway equipment and accommodation has, and the present trouble has therefore arisen. This would be a good case for the new railway commissioner to begin work upon.

Animal and Plant Breeders

Hon. John Dryden has been elected chairman of the animal section of the American Breeders' Association, the first annual meeting of which was held at St. Louis in December last. The Association includes both animal and plant breeders and also scientists who are interested in the study of heredity in plants and animals.

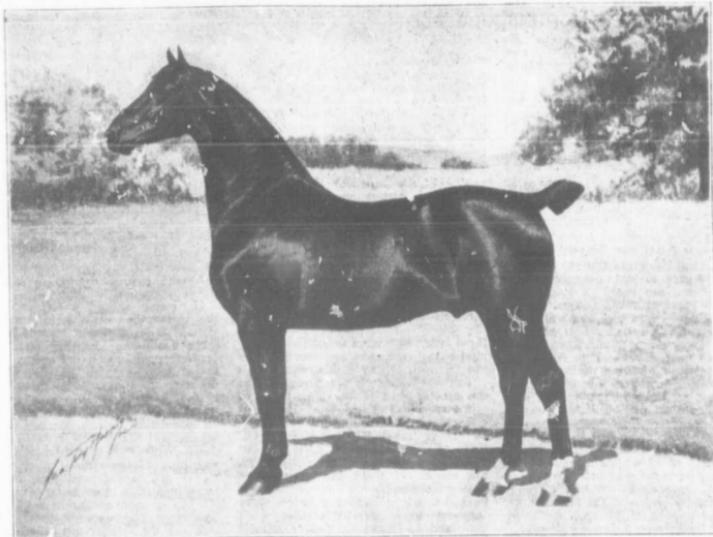
Can't Give it Up

"Please find enclosed my renewal to THE FARMING WORLD. I thought at one time that I would give it up, but it is getting so interesting that I can't think of giving it up now."

"Wishing you every success in the incoming year."

Yours truly,

H. A. WEST, Kent Co., N.B.



Champion Hackney Stallion of America, Saxon—97—winner at Toronto Spring Show, 1903, and Chicago International, 1903, property of Graham Bros., Claremont.

Have the Farmer Represented

It was announced the other day that the Hon. A. G. Blair, late Minister of Railways, at Ottawa, had been appointed and had accepted the chairmanship of the new railway commission. The ex-minister's training and experience of the past few years should well qualify him for doing good work in this important position.

The other commissioners have not yet been named. It is to be hoped that the farmers' interests will not be overlooked in further appointments. The interests of the farmer are the most important in the country and merit some special recognition on this important commission.

Horse Breeders' Grievances

Representatives of the Canadian Horse Breeders' Association waited upon the Dominion Government on Friday last and asked that the custom duties on horses coming into Canada from the United States be raised to \$30 on animals of the value of \$150 and under, and that a national record be kept, not only for horses, but for all kinds of stock. They also urged that some means be adopted to prevent inferior horses being brought into Canada on the strength of spurious pedigrees. It was shown that inferior ponies and low-grade horses are being sent into Canada in large numbers. In many instances horses are imported free on the representation that they were pure-bred animals, although they were simply culls. In this way farmers are defrauded and horses bred and seriously injured. Instances were given where advantage was taken by dealers of the settlers' regulations to bring in horses for sale.

The deputation was replied to by the Hon. Messrs. Sifton and Fisher, who, though non-committal, expressed sympathy with the breeders and promised that the whole question would receive every consideration. The latter thought it

possible to adopt regulations that would safeguard our own people. In the matter of national herd books, the Minister of Agriculture stated that the initiative must come from the live stock breeders. A meeting had been called for March next to discuss the question.

The delegation was composed of: J. M. Gardhouse, Weston; Henry Wade, Toronto; A. J. M. Robinson, Pefer Christie, Manchester; Fred Richardson, Columbus; John Bright, Myrtle; S. McBride, Wm. Hendrie, Hamilton, Dr. Cremer, Regina; and W. R. Stuart, Fort McLeod.

Sheep and Wool Decrease in 1903

The National Association of Wool Manufacturers estimates the number of sheep on hand in the United States, April 1, 1903, at 39,284,000 head against 42,184,122 head on the same date in 1902, a decrease for the year of 2,900,122 head.

The wool clip of 1903 is estimated at 245,450,000 pounds of fleece and 42,000,000 pounds of pulled wool, making a total wool product of 287,450,000 pounds of wool in the grease. The corresponding figures for 1902, as estimated by the same authority, were 274,341,032 pounds of fleece wool and 42,000,000 pounds of pulled, making a total wool product of 1902 of 316,341,032 pounds. The estimated decrease in the wool clip of 1903 as compared with that of 1902 is, therefore, 28,891,032 pounds.

The average weight of fleeces in 1903 is estimated at 6.25 pounds, a decrease of .35 pounds from the average weight in 1902, which was put at 6.50 pounds. The average weight of fleeces in 1901 was 6.33 pounds, and 6.46 pounds in 1900.

Manitoba Agricultural College

The Manitoba Government has purchased a site for the new Agricultural College just west of the Winnipeg City

limits. The site contains 117.40 acres and the price paid was \$15,000. It is reported that \$100,000 will be expended in buildings and improvements. The location of the College near Winnipeg would seem to indicate that it is the intention to utilize as far as possible the educational facilities provided by the University of Manitoba in connection with the new College.

Farmers' Institute Report

The report of the Superintendent of Farmers' Institutes for Ontario appeared last week. It is a most valuable production. The women's branch has grown so rapidly the past couple of years that a separate volume is devoted to this department alone. There are now 52 women's institutes in the province, with a total membership on June 30 last of 4,595. During the year 619 meetings were held with an aggregate attendance of 22,013.

The total membership of the regular Farmers' Institutes on June 30 last was 22,754. During the year, 837 meetings were held with an aggregate attendance of 126,459. Among the special subjects discussed was that of "good seeds." Several successful seed fairs were held by local institutes last spring. Upwards of 40,000 institute members visited the Ontario Agricultural College during June last. A more friendly feeling exists between the officers of local institutes and the different fair boards in the district. The Superintendent hopes by the growth of this friendship to bring the two organizations into closer union.

Correction

In January 1st issue, in report of Guelph Dairy test, Scotland Jean, an Ayrshire cow, is reported to have given 130.10 lbs. of milk in the 48-hour test. This should have been 79.57 lbs. of milk.

Correspondence

Government Should Lend Help

Editor THE FARMING WORLD,—

I am in full sympathy with what you are advocating in having dressed meat plants established in this country. In fact, I have felt for years that it is almost imperative that this be done, and I do think that our governments would be doing a noble work for the country if they would lend assistance.

W. D. FLATT,

Hamilton, Ont.

Why are So Few Sheep Kept?

Editor THE FARMING WORLD,—

With regard to your question, "Why are so few sheep kept?" I believe the principal cause is fear of dogs. There are very few sheep breeders who have not suffered from the ravages of dogs, and it is very discouraging when a man has bred up a good flock to have, per haps, the work of years destroyed in a few minutes. It is not only the worried sheep that are ruined, but the rest of the flock don't seem to flourish afterwards.

We have been fortunate so far, although we keep about 100 sheep on the farm, divided in different lots, we have never had a sheep worried, although our neighbors have suffered more or less at different times. I sometimes think our immunity is due to the fact that we have had no dog of our own for some years. I think when a dog is kept others are more likely to come around.

I know it is a difficult matter to make a law to give adequate protection. I think if sheep raisers were given a little more liberty (legally) to shoot down any useless cur that might be running at large in season and out of season, it would influence the owners of such dogs to keep them at home.

I certainly think the keeping of sheep the most profitable branch of the live stock industry in Ontario. I am satisfied mutton can be produced cheaper than either beef or pork—especially when we consider the cost of labor in handling a flock of sheep—and the comparatively cheap buildings necessary for their protection, as suitable buildings can be constructed a great deal cheaper than would be found requisite for the successful handling of other kinds of stock.

R. J. HINE,

Elgin Co., Ont.

Agricultural College Work in Canada

To the Editor THE FARMING WORLD:

Your plan of one agricultural college for all Canada, with less pretentious schools for each of the provinces, has some attractive features. Such a system is in harmony with present day

ideas, and is carrying out on a larger scale the principles that are leading to the centralizing of schools in the country districts.

To dispute the soundness of the principle at present would only be placing oneself in antagonism to forces beyond one's control.

In Germany, however, which, it is said, sets the pace for the world in educational matters, nearly every state has a well-equipped agricultural college, requiring that all applicants before they are admitted as students must have a liberal education. Besides this, there are a number of smaller schools usually connected with experimental farms in the several states. In those are taught the special branches of agriculture followed in the section in which the school is situated. Boys can enter these latter who have an ordinary common school education, and short courses are arranged for as in this country.

The average farmer is clearly not at the present time to the importance of more specific knowledge of the principles as well as the practice of agriculture is leading the management of some of our art colleges to take about agricultural courses in connection with the classes in these institutions, and it is quite possible that something may be attempted in this way before very long, doing in part the same work that is done in the secondary schools in Germany.

As to a central college, I think Canada ought to be able to support more than one. With but few exceptions every state in the union has its own agricultural college. It is true these colleges have not in the past been particularly well patronized by the farmers, and as a consequence, have not benefited them to the extent hoped for. The last ten years, however, have brought about a great change, and the halls of these colleges are now being filled with students who expect to make farming their life work.

You intimate that the growth of the Guelph college has been slow. It may not have developed as fast as its promoters desired or expected, but when you can state of a school at the close of its first thirty years of life "that it is the best all round equipped institution of its kind in the world" it surely can scarcely be said of it that "it struggled many years for the recognition of its worth or the approval of its work." When it is remembered that at the time it was founded the prejudice against scientific farming, or even farmers who had studied their business in part from books, was only just beginning to give way, and that many farmers at that time, though they may

have had the disposition to send their sons to the college, could not spare their labor from the farms.

Yet in spite of this, and in spite of the fact that Ontario was comparatively a new country, the college that the men of thirty years ago had faith enough to start stands today first among the agricultural colleges of the world.

If, under such circumstances, Ontario has accomplished so much in so short a time, is there not encouragement for the other provinces looking at the changed sentiment everywhere in relation to agriculture. I do not quite like to give up the hope of seeing in our eastern provinces a college doing the work that Dr. Mills in his very able address in Amherst two years ago told us that such an institution would do for the uplifting of the farmer and the business that he followed.

If Guelph should undertake to do the work for all the provinces of Canada it would soon become a very large institution. In ten years, under present conditions, if the average yearly increase were the same as that of the year 1902 over 1901, there would be five thousand students in attendance. This is not allowing for any increase in population, which we are led to believe will nearly double itself in that time. While it is true there is scarcely any limit to the size of a university, it has not been proved that the very large institution does better work than the one of more moderate size. There are close observers of these things who say the smaller institution is preferable. When a college has students to form large classes, the advantage of still larger classes is doubtful. All things have their limitations.

When the government of New Brunswick and Nova Scotia announced with a considerable flourish of trumpets that they had agreed to unite and establish an agricultural college for the Maritime Provinces and they showed in via Prince Edward Island to join them, I was very glad to hear the announcement, and I sincerely hoped they had the wisdom to find the right kind of a working basis and the executive ability to carry the plan into successful operation. It has turned out otherwise, and Nova Scotia has undertaken to provide her own college. I do not know what New Brunswick intends to do in the premises. She has three art colleges, all of which are cramped in their finances, and short of material in their class rooms. The University of New Brunswick is the only one of the three that gets a grant of public money, and the belief held by many has always seemed to me sound, that this money ought to be so expended that the artisan and the farmer would receive greater benefit from it.

HOWARD FARMER,

Point de Bute, N.B.

THE FARMERS' HANDY BOOK

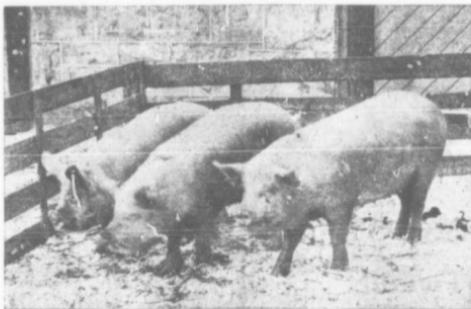
The Farmers' Handy Book will be ready for mailing about the end of the present month. Those who have seen the proofs of the leading sections pronounce it the best thing of the kind in print. Thousands of copies are already being taken, and the indications are that the book will run into a second edition. We strongly advise every reader of THE FARMING WORLD to remit his subscription promptly, and thus secure an early copy of The Handy Book.

It is a work that no person engaged in agriculture can afford to be without, and as it is sent free to paid-up subscribers to THE FARMING WORLD, there is no excuse for any farmer or live-stock man missing it.

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THE FARMING WORLD is 60c. a year in advance, and is the best agricultural paper in the country. The Farmers' Handy Book is the only thing of its kind published in the English language, and is made especially for Canadian farmers. Canadian Good Housekeeping is the only household magazine published in Canada, and one of the finest periodicals published in any country. It is full of illustrations and deals with practical subjects. Published every month, over 100 pages each issue. Its subscription price is \$1.00 a year.

We will send THE FARMING WORLD one year, Canadian Good Housekeeping one year, and a copy of the Farmers' Handy Book to any address in Canada for \$1.25. Address: THE FARMING WORLD, Toronto.



Three Yorkshires—First prize pen of pure-bred bacon hogs on foot, and champions in the Carcase Classes, Winter Fair, 1903, owned by J. E. Brethour, Burford, Ont.

Breeding Qualities of Young and Old Sows

The Wisconsin Experiment Station has recently completed an important series of experiments along the line of feeding and breeding hogs, the results having recently been presented to the public in bulletin No. 104, the author being Prof. W. L. Carlyle, who by the way, is a Canadian. The following brief table was made up from the record of twelve sows, four in each class named:

	Large.	Medium.	Small.
Average weight of sows at farrowing, lbs.....	480	307	368
Average weight of litters at birth, lbs.....	27	16	14
Average number of pigs in each litter.....	9.2	6.7	5.5

The above results are certainly very striking. Not only were litters larger in the case of well matured sows, but the individuals of the litter were lustier at birth than is the case with young sows. The lesson to be learned from these figures is that when one has succeeded in testing out his young sows the herd should be strengthened by cutting out all sly breeders after the first litter is farrowed, and holding on even for a number of years to those that produce large, strong litters. There is too much of a tendency to market sows after they have reached the age of two or three years.

It must not be inferred from the above table that it is never advisable to breed from young sows. Only by testing them in this is one able to ascertain whether they shall be kept in the herd or not. The beginner in the business must generally start in this way; that is, he must purchase young sows in the fall or during the winter and have these bred to farrow the following spring, because men will not part with their yearlings or two-year-old sows at anything like reasonable prices.

Another interesting feature is touched on in the bulletin mentioned, namely,

the effect of age on the size and weight of litters. Some interesting data are given in the following brief table:

	Number of litters.	Weight of litters.
Sows 4 and 5 years old.....	9	46
Sows 2 and 3 years old.....	7	42
Sows 1 year old.....	7.8	44

The above figures simply corroborate those given in the first table, and they emphasize the importance of holding on to sows even if they are somewhat advanced in years, so long as their breeding qualities do not seem to be impaired with age.

The "Large Black" Hogs for Bacon

The Central Experimental Farm has been experimenting for the past year or two with a new breed of hogs for bacon purposes—known as the Large Black. Mr. J. H. Grisdale, Agriculturist, in his evidence before the Agricultural Committee last spring, spoke as follows in regard to this new breed:

I might just say that we have only four breeds of pigs at the farm, Yorkshires, Berkshires, Tamworths and Large Blacks, which were imported two years ago—to be exact, in September, 1901—to determine, if possible, whether they would make a good breed for this country or not. I must say that up to date the results have not been very satisfactory. They are good feeders, thrifty and healthy, and fairly rapid growers, but they have a little too much development of belly meat, and are a little too thick and wedge-shaped over the shoulder, that is, they get thick on top, and this thick fat, which is right between the shoulders, when the carcass is cut down the back, falls rapidly away, in the same way as does the fat on the "razor back," and, therefore, this carcass is objectionable for bacon. We have tried their crosses with the Berkshires,

the Tamworth and the Yorkshire, and the crosses did not have this peculiarity so distinctly marked. Probably the crosses are more thrifty than the pure-breds of any of the breeds named, but of course that is a peculiarity of cross-bred animals. We get more hardiness and "hritt in cross-bred pigs. They are always "hrittier and harder than the pure-breds.

We fed ten pigs, pure-breds and crosses, on oats, peas and barley, with a little skim milk, and we found that the Large Black and their crosses gained quite as rapidly and as economically as did any of the other breeds. Therefore, the only objection to them are these two peculiarities mentioned, the razor-back shoulder and a rather too great development of belly meat, which is cheaper than the other cuts.

Hauling out Manure in Winter

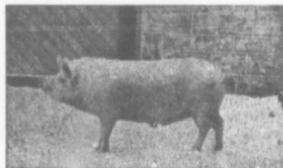
Though not generally practiced, the manure can be hauled out during the winter when there is the most leisure about the farm. The yard is dry in winter and the manure can be handled to better advantage than in the spring, when everything is wet and the fields soft and difficult to cross with heavy loads. Besides the plant food will be preserved.

Hauling during the winter will save labor and the labor will be distributed to better advantage, thus avoiding the unnecessary rush in the spring, when the seeding has to be attended to. When manure lies piled up in the barnyard all winter long, there is always a loss of valuable plant food due to rapid fermentation, and also by the heating and washing during the spring when heavy rains fall. A great amount of nitrogen is lost by this fermentation while some of the most soluble compounds of nitrogen, phosphoric acid and potash, are lost through leaching and washing. If hauled out during the winter these soluble compounds, instead of running to waste, are absorbed by the soil and there held ready for the roots of the plants to assimilate. If spread on the fields there will be no loss of nitrogen as the manure will not be in large enough quantities to ferment.

A good plan, where it can be carried on, is to haul the manure to the field daily direct from the barn. But this can not always be done. A good plan, then, is to do it once a week, or often enough to prevent the manure accumulating in large heaps. Try this plan this winter and see how it works.

Barmen and Gordon Highlanders

A few days ago a countryman went into a bar of a large hotel in Glasgow and asked for a bottle of stout. Tending a shilling he received back six-pence change. "Hiv ye ever been in the Gordon Highlanders?" he inquired. "No," replied the barman; "but why do you ask?" "Only because I see ye're a graun' haund at chairing," was the retort.



Prize Winning Yorkshire Barrows, property of R. F. Duck & Son, Port Credit, Ont.



Prize Winning Yorkshire Bacon Sow at Guelph, 1903, Lake View Nettle, property of R. F. Duck & Son, Port Credit, Ont.

Prince Edward Island

Cold weather. As the snow came in very small installments up to the 30th of December, the sleighing has been very poor. But on the 30th inst. several inches of snow fell just in time to make the travelling good for the celebration of New Year's Day. New Year's market was well attended, and sales were brisk. A large amount of poultry was on sale, geese sold for 10½¢ per lb.; turkeys, 13 to 14¢ per lb.; fowl, 8¢ per lb.; live pork, 4½¢, dressed, 5½¢ per lb.; white oats, 29¢; black, 30¢; potatoes, 23¢ per bush; hay, 6¢ to 6½¢ per cwt.; straw, \$5.50 per ton; beef, small, 8 to 12¢ per lb.; lamb, 10¢ per lb. and very scarce; cattle, dressed, 5 to 6¢ per lb.; oatmeal, 3¢ per lb.; flour, per bbl., \$5.00; ducks, per lb. 9 to 10¢; eggs, 25¢ per doz.; butter, fresh, 23 to 24¢ per lb.

On Dec. 22, Mrs. S. Wonnacott, of Hunter River, sold a goose (which weighed 19 lbs.) for the sum of \$2.00.

The annual meeting of the Farmers' Institute was held at Morel on Dec. 9. President J. Webster occupied the chair. The financial statement was presented, which showed a collection of \$119.10 during the year, which was all expended in the interest of the club, except a balance on hand of \$8.76. The membership on the list is 108. The Institute is in a flourishing condition, and some of the farmers are prepared to supply pure-bred York hogs. The Institute also owns two pure-bred Ayrshire bulls, and one Shorthorn, which took the prize in 1902 in competition with the Maritime Provinces. The Institute meets on the 2nd Wednesday of every month. Subject for next meeting, "Hog Raising."

The annual meeting of the Alberton Farmers' Institute was held on Dec. 19. The Institute is doing good work. This year they have 91 members. They have purchased during the year \$250.00 worth of pure-bred Shorthorns, \$450.00 worth of seeds from W. Rennie, Toronto, and \$250.00 worth of binder twine, from the Farmers' Binder Twine Co., of Bradford. Ten educational meetings were held during the year.

The annual statement of the Dairy-men's Board of Trade, for 1903, has been submitted. Eleven meetings were held during the year. The first meeting was held on June 19th, and some of the officers were re-elected.

In all, 23,171 cheese were boarded, all except a few hundred being colored, sold on board, 13,775. Last year 23,053 cheese were boarded and 10,801 sold. The present sales are reported the best in the history of the board.

Last year less than half sold, and this year about two-thirds. The price paid was also the highest. In 1899, the average price was 9.96; in 1900, 10.20; in 1901, 9.25; in 1902, 10.16; in 1903, 10.40. The highest price was paid on September 25 by A. J. Biffin, who bought the output of a few factories at 12¢; the lowest price, 9¼¢, was paid on July 24.

The schooner that Wedlock Bros. loaded late in the fall at Bay View, is frozen in the middle of New London Bay.

On Dec. 21, the S.S. Stanley discontinued running between Summerside and Cape Tormentine, and went on the Georgetown and Picotou route, with the S.S. Minto. Both boats leave each side every week-day morning.—A. R.

In and About Quebec

During the month of January, Farmers' Institute meetings will be held throughout the Province. In the English-speaking districts the lecturers engaged are Messrs. A. P. Ketchen and A. S. Spark. Similar meetings will also be held at some sixty points in the

French-speaking counties. The speakers for the coming campaign have already been engaged, but it is to be regretted that we can avail ourselves of so few competent lecturers from our own Province. Many of the gentlemen who will tour parts of the Province this January in the interests of the farmers, live outside of Quebec, and it is becoming recognized that our interests demand that we train lecturers from our own sons. To this end, the Dairy-men's Association of the Province of Quebec, suggests that inducements be offered to their Inspectors to undergo a special course of training to enable them to address Institute meetings during the winter months. At present only a small portion of the Province is reached by the lecturers, and there remains a large field to cover. This dearth of available speakers can certainly be supplied by the cheese and butter factory inspectors who would no doubt be thankful to secure occupation during the winter months, more in keeping with their summer vocation and more apt to add to their prestige than their present winter pursuits.

With systematic organization and thoroughly trained speakers, these institute meetings have exercised a tremendous influence on the development of agriculture, particularly in the Province of Ontario, and this influence is increasing year by year. There is no doubt that, under proper management, similar results will be attained in the Province of Quebec, where our farmers have so frequently shown themselves eager to keep in touch with the latest agricultural methods.

The annual statement of the Dairy-Quebec Dairy Association will be held in Sherbrooke on Jan. 26th and 27th. The Association is especially fortunate this year in their choice of a town in which to meet, and a large attendance is hoped for. The programme has been arranged with an equal number of addresses in both French and English by the most prominent agriculturists and dairymen in the Dominion, including Hon. S. A. Fisher, Hon. Adélard Turgeon, Ex-Governor Hoard, M. G. A. Giguault, Prof. J. W. Robertson, Prof. F. T. Shutt, Messrs. J. H. Gisdale, J. C. Chapais, J. A. Ruddick, L. A. Tourchot, J. A. Vaillancourt, H. Nivin, Gabriel Henry, O. E. Dalaine, J. D. Leclair, E. Bourbonneau, and J. A. Flammendon.—H. W. P.

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\$6.50 Heavy

Tweed

Overcoats

for \$2.59

Our Semi-Annual Sale is on.

We have called it Freeze Out

because we intend to freeze

out every garment at and

below cost. We have 50

Men's Heavy Dark Tweed

Overcoats, sizes 36 to 44,

tweed lined, Regular Price

\$6.50; Freeze Out Price

\$2.59. If you want one send

your money to-day—if it

doesn't suit you when you get

it send it back and get your

money. There is no easier

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finding it, and this is where you

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Canada's Best Clothiers

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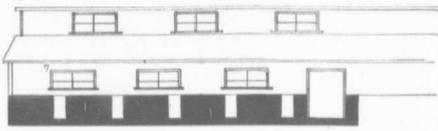
Right Opposite St. James' Cathedral

TORONTO

Neck and Shoulders above
all Competitors



Champion bacon hog carcasses, Winter Fair, Guelph, 1903. Owned by J. E. Brethour. The animals alive are shown on page 57.



South Elevation.

Up-to-date hog pen, property of J. E. Brethour, Burford, Ont.

Syndicating Pure-bred Bulls

Perhaps there is no one subject within the catechism of the breeder that has received more attention than that of the use of the best sires. Lecturers have spoken everywhere and have made it the first plank in their platform, the first commandment in their code, and the first axiom in their geometry. Papers and journals, everywhere, good, bad and indifferent, have worn it threadbare, and where and what is the result? Repeating it to the breeder of experience and skill is a vain repetition, for he knows it and remembers it first, last and all the time. Equally, it seems like folly, pure and undefiled, to go on repeating it to the other fellow, for he seems to be an incorrigible disciple of the text, "between two evils choose the cheapest."

In dealing with a question of the kind it is always wise to first investigate the cause. Why is it that in many sections, where first-class pure-bred sires, kept in the stables of a local breeder of pure-bred stock only, these

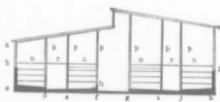
horsemen of syndicating pure-bred males in such communities. Modifications of this system would be, of course, based on the much lower original cost in the case of pure-bred cattle. The following is one that has been suggested by a practical and experienced stockman, and looks like a practical one. Suppose the cost of a pure-bred Short-horn bull of good quality, or of gilt-edge breeding, to be \$10000 to \$15000. A syndicate of ten farmers, at a cost of from ten to fifteen dollars each, not more than they would each pay for even scrub service on an equal number of cows, could secure the best individuals in the beef-making world, and the improved quality of their first crop of calves would again repay them their outlay several times over. These men could place this money in the hands of one of their number to make the purchase, and the further suggestion was made that the person thus selected would, in all probability, be a person well adapted for keeping the animal. A good form of payment for this care and trouble would be an arrangement that at the end of three years the caretaker become the full owner of the animal. There would be a great all benefit derived from this system and there are not many sections where at the end of the first or second term there would not be several men willing to buy and keep high grade animals of their own. It only requires a trial to convince anyone of the substantial advantages to be reaped from the employment of really good pure-bred males.

This is one suggestion to meet the question of cost. In the case of the other difficulty, that of the locality, where the dual purpose animal is desired and the general tendency is to fall short of either, the question is much harder to answer. This is an age of specialization, and the first reflection brings the impulse to utter the command: "choose ye which way ye will go." Yet even here it is well to pause and to consider, lest a wiser word may be left unsaid.

Too radical to appeal to the taste of all, forcing others into a line ungenial, a verse from the book of the experienced beef breeders

might be aptly quoted for the guidance of those whose circumstances force them to call for dual qualities in their cattle.

"The effects of careful breeding are not to be gained. That you cannot breed a good beef animal from parents of dairy type does not require to be repeated. Neither, on the other hand, can beef animals readily produce dairy cows that will readily compare with the best in dairy breeds. But there is, and always will be, as much in feeding as there is in breeding. As it is recognized by breeders of dairy cows that high feeding of young calves develops "beefiness," to the deterioration of milking qualities, so in the Short-horn heifer calf, plain feeding in calfhood will permit of the development to the highest degree possible of her milking qualities. In this way way the young Short-horn heifer might be developed into a cow of at least fair quality for milking purposes, while her brother may, at the same time, be pushed along into



CROSS SECTION

BRETHOUR'S HOG PEN.—Darker portions showing cement walls and floors, a, 6, 8 ft. stalling; b, 3, 3 ft. cement wall; c, d, 6 ft. cement floor of sleeping berth, grade 12 in. from e to d; e, gutter 36 ft. wide; f, 6 ft. floor of feeding pens, grade 3 in. from f to d; f, 6 ft. floor of feeding alley; h, end of cement trench; g, same as d f; j, gutter; k, same as c d; l, same as b c; m, 1 in. ft. stalling; p, 18 x 4 posts; n, board partitions 4 ft. high; o, 3 ft. board and 1 ft. wire partitions; r, 6, 3 ft. floors.

a beef steer of the profitable and remunerative kind."

So much for this side of the question. Whether pure-bred, purely dairy, or dual purpose animals will be kept is a conclusion that everyone must arrive at for himself. All beef breeders admit that in no case is crossing the breeds possible. But the co-operative plan of purchasing bulls, whether for either purpose or of whatever breed, is a question worthy of serious consideration, in many localities, and good work in this line could be done by arrangement for syndicates of this kind at Institute meetings throughout the province and elsewhere generally. A small amount of practical work along this line would be productive of more real good than a halfof of hot air or a carload of argument in any other form.

J. W. SANGSTER.

Ham soaked in milk over night will be found exceedingly tender and sweet when used for breakfast the next morning.



Front of Brethour's pens, showing arrangement of wire. The darker portion at the bottom is the front of cement trough. By setting the 4 x 4 posts flush with the front the wire will come about 2 inches inside the trough; this allows the feed to be poured in the trough. The lower eight wires are 24 in. apart, the next five 3 in., and the top two 4 in. Three upright wires are locked to each horizontal wire.

are not made more use of? One reason is that the rank and file of farmers will placidly content themselves with the services of any scrub male that happens to be nearest, and even then, will in many cases pay for their service a sum large enough to make the purchase of a high-grade pure-bred male for the purpose a profitable investment. Another of the most prevalent reasons for this state of affairs is the disinclination towards the investment of the amount of the first cost. Another is probably the mixed nature of farming in many places. This is very common, and it is noticeable that in sections where both cattle feeding and dairying are more or less attempted by most of the farmers at once, and where the use of the pure-bred male of the dairy breed is objectionable on account of the "extra" poor beef qualities of the steers, and on the other hand they can only improve the beef qualities without at the same time affecting an increase in milk, indeed, often at the expense of it, that this sort of apathy is most noticeable.

To help matters, we have a suggestion to offer that would, we are satisfied, meet with the approval of many and in a great many instances prove of great benefit to communities where good blood is not at present easily available. It is the putting in operation of some modification of the system considerably in vogue among



GROUND PLAN BRETHOUR'S HOG PEN, 100 x 30.—Lower half shows arrangement of pens with sleeping berths closed when cleaning out, manure piling out at doors K K. Top right section shows pens arranged to give pigs access to either sleeping berths or trough at L L. Top left section shows dividing doors half open. a, a, Small doors, 24 x 36 in. from pens to outside yards. b, feeding alley 3 ft. wide. D, cross alley 3 ft. wide. E, Feed room. Large doors at g g. H, Farrowing pen, 10 x 12. I, Sleeping berths, 6 x 8. Feeding pens, 8 x 6.

Farm Implements and Conveniences

A Handy Farm Truck

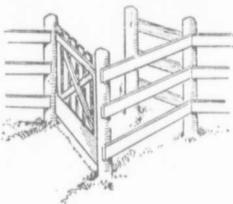
With this truck one can pick up a barrel or bag of grain, fruit or vegetables and wheel it away, even over a rough path, something almost impossible with the small, double wheel grocery and freight trucks. A blacksmith



will mount a wheel beneath a frame, as shown in the cut, and the frame ought to be within the ability of anyone handy with tools. A medium-sized, single-wheeled truck will do much work, and do it easier than is possible with a small, double-wheel truck.

A Handy Gate

Very often it becomes necessary to pass frequently through a field where stock are kept, and the following description of a gate is most suitable for this purpose. It will keep out animals, but can be opened readily to persons on foot. It is an ordinary small gate which swings between two posts set far enough apart to permit the passage of a



person. These two posts are at the two ends of a V-shaped end in the fence. The cut shows the construction of the end of the fence, with two posts between which the gate swings. The gate should be so hung that it will fall against either one of the two posts at the end of the V end in the fence.

The Tools upon the Farm

There are many loves which nature Sends, to cheer life's dreary route,
Some so soothing, entertaining,
We could scarcely do without.
But to me, a humble farmer,
Usefulness gives added charm,
And my heart beats with affection
For the tools upon the farm.

They are partners, ever ready
Their allotted tasks to do,
Asking little compensation,
Never, then, until 'tis due,
And I glow with satisfaction
As I shelter them from storm,
For my truest lieutenants
Are the tools upon the farm.

At seed time and at harvest
They are ever at command,
Eager to perform their duties
If I only lend a hand.
Hence a scarcity of labor
Fails to waken much alarm,
I can ask for double duty
From the tools upon the farm.

You may prate about the glories
Music lends unto the soul,
As the airs of Bach or Handel
O'er your senses gladly roll;
But for entertaining anthems,
Fraught with inspiration warm,
Let me listen to the humming
Of the tools upon the farm.
—Orlo L. Dobson.

A New Harrow

Perhaps in no line of human effort is more skill and invention displayed than in the manufacture of agricultural implements. Take the harrow as an example. One would suppose that this implement had reached a stage where there was no more room for the inventor's skill. But such is not the case, as is here shown. We give herewith an illustration of the Blaine Patent Harrow, now being introduced to the Canadian farmer. This harrow seems to have many advantages that are peculiarly its own. One of its chief features is the simple method employed in holding the teeth firmly in position in the U-bar. This bar has an upper and lower flange in which corresponding holes are made. Though these holes are directly opposite each other, their angles do not range, consequently when the tooth is forced in by a powerful machine, a twisting strain is given the tooth, which will not move.

This bar is the result of a happy idea, and as the round part is in front when in use, there is no projection or other

chance for weeds or dirt to clog. But should this happen in very weedy land, all the driver has to do is to slope the teeth by means of the lever and everything will immediately be cleaned off without stopping the team. Then again, there are no bolts to come loose and fall out, and but few malleable parts. The construction of this harrow is simplicity itself, whilst at the same time the matter of strength in every part seems to have been prominent in the mind of the inventor. There are several other commendable features about it, amongst which may be mentioned its flexibility to adapt itself to uneven surfaces. The teeth may be moved to any angle desired, when in use for cutting sod or harrowing in seed, or the teeth can be thrown into a horizontal position so that the points are entirely clear of the ground when the harrow is being hauled from field to field, (which may be done without being loaded on to a wagon).

As regards size, a pair covers from 10 ft. 6 in. to 11 ft. in width, and each section is provided with 30 teeth, each one being so arranged as to cut new ground, so that every inch of the soil will be uniformly worked.

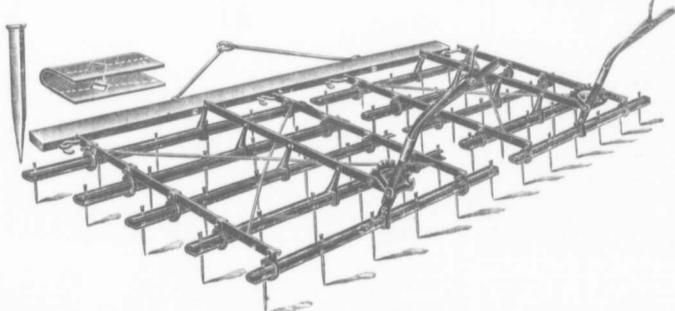
To Relieve a Choking Cow

A farmer turned his cattle into an orchard where there was a lot of fallen apples—a bad place for cows. One cow became badly choked with an apple. His neighbor happened to have a piece of rubber hose, about three feet long, rather stiff. They greased this with lard, held the cow's head up, and shoved the hose down her throat, pushing the apple down into the stomach. A piece of rubber hose is just the thing for this purpose, being flexible and soft, yet stiff enough for the purpose.

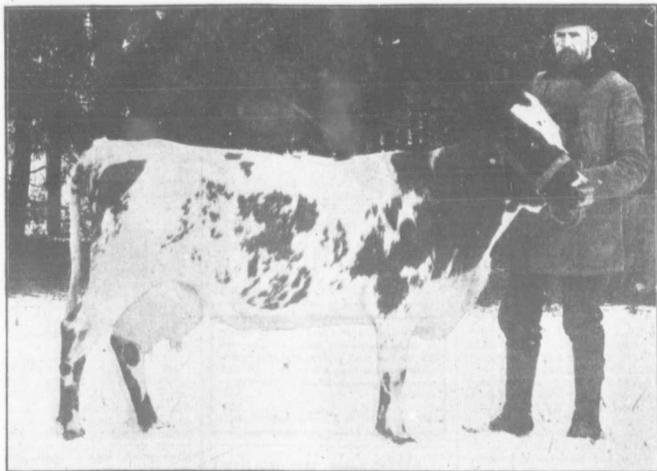
To Equalize Draft

A device for equalizing draft so that one horse of a team² may not shirk his duty and put the whole burden upon his mate is described by an eastern paper as follows:

"The improvement consists of a set of hames for a double team made of tubular metal, to render them light without sacrifice of strength. The hames are set in a framework, also of tubular metal, the fastening being of a swivel character at the top and bottom to permit of accommodation to the individual movement of the animals. The connecting framework is of a flexible nature, so that there is no interference whatever with the freest movement on the part of either of the horses. The effect of this connection between the animals can only be to make each one assume a share of their common load."



The Blaine Patent Harrow.



Ayrshire cow, Sarah 2nd, Champion Provincial Winter Fair, 1903.
Owned by H. & J. McKee, Norwich, Ont.

See January 1st issue.

Dairying Has Progressed

Eastern Dairymen at Belleville—Education the Keynote

In the City of Belleville, on Jan. 6-8 last, was held one of the most successful dairy conventions ever held in Eastern Ontario. It was the 27th annual gathering of the Eastern Ontario Dairymen's Association. The attendance was large, and the interest in the proceedings of a most earnest kind, indicating that our dairymen have not reached that goal where further knowledge of the business is unnecessary.

President D. Derbyshire, of Brockville, in his annual address, emphasized the need of still further improvement.

We must have cleaner stables, cleaner factories and better regulated curing rooms. Progress had been made during 1903, but we must reach out further. He estimated that the value of cheese exports last year would reach \$28,000,000, and butter \$7,000,000, and bacon \$16,000,000, or a total of \$51,000,000, or \$7,000,000 more than in 1902. At least twenty-five syndicate instructors will be needed in 1904 to cover the work, as against twenty-two instructors last season. Danish butter is regularly quoted at ten shillings above Canadian creamery in the British market, and English and Scotch cheese at eight to ten shillings per cwt. above ours. It should be the aim of the Canadian dairymen to improve the quality of the product till it is the standard of these other makes.

After referring to the importance of the educational work being conducted for the benefit of the dairymen, Mr. Derbyshire strongly deprecated the making of winter cheese. Make butter from November till May, and confine cheese-making to the other six months of the year. This would tend to equalize matters and keep cheese of not fancy quality off the market.

THE DAIRY COW

In the hands of Henry Glendinning, Manilla, Ont., the dairy cow received a good send-off. Care should be exercised in milking her. Rapid milking

gives most milk. In the care of the cow the aim should be to continue during the year, June conditions. A good horn-fly remedy was to spray the cows with crude petroleum. Apply it in the stable to the whole herd about three times a week. Milking cows do not require exercise in winter. His practice was not to let his cows out in the winter, but the stable should be bright, warm and well ventilated. Cows should not be given ice-cold water. The food should be palatable, bulky, succulent and cheap. A good daily diet for cows was: corn silage, 40 pounds; clover hay, 10 pounds; pea meal, 4 pounds, and wheat bran, 4 pounds.

GRADES OF CHEESE AND BUTTER

Mr. J. A. Ruddick, Chief of the Dairy Division, Ottawa, brought before the convention the resolution, passed at the dairy conference last fall, advising three grades for cheese and butter instead of two as is now the case. There was need of a third grade so as to give the producers of the very finest all the credit they might get. In New Zealand a large number of grades had been found beneficial. He also introduced the resolution passed at the same conference recommending the licensing of cheese factories and creameries. Subsequently a resolution, moved by J. R. Dargavel and seconded by J. W. Hyatt, that in the opinion of the Association the best interests of dairying would be advanced by the licensing of cheese factories and creameries, and appointing J. R. Dargavel, Henry Glendinning, G. G. Publow, D. Derbyshire and R. G. Murphy a committee to collect information, make a report, and, if thought advisable, prepare a draft bill for presentation at next annual meeting, was passed.

PLEASURE AND PROFIT

The evening sessions of the convention were more of a public character and the citizens crowded the opera house on

both nights to hear the addresses which were liberally interspersed with excellent music. On Wednesday evening Mr. Ruddick, in response to the address of welcome, stated that the Eastern Dairymen's Association was organized in Belleville 27 years ago by Mr. Ketchum Graham.

Mr. Thomas McGillicuddy, Toronto, speaking of the march of modern dairying, stated that at a convention held only 13 years ago, winter dairying, dairy schools, and the silo were first talked of. Twelve years ago the Babcock tester appeared on the scene and legislation against bogus butter passed. Bacteriology, as an aid to dairy science, was first discussed by the convention seven years ago.

The Hon. Mr. Dryden's address dealt somewhat with the aids given by the Provincial Department of Agriculture to the dairy industry. The further improvement was a question of men, on the farm and in the factory. To make the best possible product, these things were necessary: Education, unity and harmony, diligence, perseverance and enthusiasm.

On Thursday evening the programme was of a semi-concert character. The speakers were Prof. Dean, C. C. Jones and J. A. Ruddick.

Prof. Dean had as his topic the Agricultural College and the Dairy School. Some new features would be introduced into the school work this year. Instruction would be given in the making of Cheshire and Stilton cheese. Instruction in making cheese boxes would also be given. More uniformity in the teaching methods, the lengths of the courses, etc. was needed in the dairy schools of the province.

The experimental side of the school work was dealt with. Milk for home use in the cities could be best preserved by pasteurizing to 160 degrees and cooling immediately to 40 degrees. After this treatment it will keep from 4 to 5 days at 70 degrees. He emphasized the need of more inspection of the milk supply in cities and towns. In cold curing cheese by the ice and mechanical refrigeration processes, the latter method

was found to give better results, the air in the chamber being purer and drier. There was a little too much moisture in the ice method, though it was much the cheaper. Under present conditions the mechanical plan was too expensive for practical purposes. After six weeks the cheese ripen at about the same rate whether in a cold or warm place. More rennet should be used where cheese go directly into cold storage. Cheese put in boxes in cold storage right after being made, cured better than the cheese on the shelves at the same temperature.

Mr. James took his text the evolution of agriculture in Ontario during the past 25 years. Agriculture was now developed along many lines and the farmer was in a more prosperous position in consequence. To show the advantage to the farmer of having more than one line of agriculture, Mr. James compared five counties around Belleville with three counties in Western Ontario. In the dairying industry there was largely carried on, the five counties producing cheese to the value of \$3,731,000, or \$74,000 per county, while the three Western counties produced cheese to the value of \$2,000,000, or \$75,000 per county, but in addition bacon products to the value of \$2,453,000. For every \$1.00 the farmer of the Western counties received for cheese, he received \$1.09 for bacon, while the farmer of the five Eastern counties received only 40 cents for bacon for every \$1.00 from cheese.

A great deal of attention was being paid in our system of instruction and education in agriculture to the farmer and latterly to the farmer's wife. It was now time to do something for the boys and girls of the farm. Agriculture in public schools should receive more attention. The farmer could bring this about if he would only demand it.

Mr. Ruddick followed in a brief talk on the work of the Dominion Department of Agriculture, assisting the dairy and allied industries. Four hundred creameries had built refrigerators and received the \$100 bonus. Refrigerator cars for butter started from 48 different points in Canada to Montreal. The railways furnished 105 iced cars per week for cheese in 1903. Government contracts with oil vessels for cold storage chambers expired last year, yet 42 steamers sailing from Montreal had these chambers in operation last year, and 14 had cooled air chambers for cheese.

SYNDICATE WORK

The morning and afternoon session were of the most practical kind and subjects of vital interest to makers and patrons of these factories were fully discussed.

Mr. G. G. Publow, Chief Instructor, reported on the syndicate work of 1903. 552 factories contributed \$15 each towards the work. These were organized into 22 syndicates with an instructor over each. These made in all 3,317 visits 44,310 tests for adulteration were made, and only 359 cases of adulteration found, while 10,093 fermentation tests were made with 9,020 more or less tainted. This showing that the instructor's time is more needed to look after the flavor of the milk than for the dishonest patron. 230 factories made improvements during the year to the value of \$43,000. Many factories are not in good condition. Not more than 25 per cent. of the factories fulfil the requirements of an up-to-date properly equipped factory. There were few complaints about the milk in May or June; the cheese was good and the whey cool. Early in July the instructors reported the cheese bad in flavor, and too much acid. On investigation the trouble was traced to a yeast plant found to be very prevalent in unclean whey tanks, and occasionally in the trees, etc., near where the milk

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was kept over night. This difficulty arose in non-syndicate factories also. With this exception, there was greater uniformity in the quality of the cheese made. The chief general defects were in flavor, texture and finish.

INSANITARY FACTORIES.

Dr. Cornell, Kingston, followed Mr. Publow, dealing with the shortcomings of cheese factories and creameries from a sanitary standpoint. Many are not properly located and can't be drained to advantage. Often the construction is bad. Make-rooms should have water-tight floors, which should slope to drain. A good cement floor built from the ground up is best and will last at least 15 years. Have drain pipe of glazed tile and built 100 feet from factory before discharging. The septic tank system for disposal of the waste was best. No shallow wells should be used at factories as the drainage gets in. Keep the factory inside and whey tanks clean. Keep tanks away from the well. If cans are not kept clean, factory will be seeded with bad germs.

He had investigated the difficulty with acyly and bad-flavored cheese at the factories, and traced it to yeast germs which grow readily in some whey tanks. The whey showed these germs, which caused an open, acyly bitter cheese, with numerous pin-holes, which afterwards developed into a cheese-like form. The remedy was to thoroughly cleanse the whey tanks, and keep them clean, keep the milk away from the trees and dust and cool to 66 degrees.

The discussion following these two addresses was of a most practical kind. In reply to a series of questions, Mr. Publow stated that the maker should not have to clean the whey tank; patrons should get a man to do it. The Tweed syndicate, where only five factories return the whey, won most prizes at Toronto last year. Milk should be cooled immediately after milking to 60 degrees or 65 degrees, and kept covered up in a cool clean place over night. Twenty-five per cent. of the patrons during the two warm months send too ripe milk. Cool Saturday night's milk to 55 degrees to 60 degrees to keep till Monday. There is not honor enough or makers would not take milk they know to be bad. If a maker knowingly takes in bad milk he should pay the loss, if any. Instead of demanding a guarantee, factory-men should hire a man and if he is no good dismiss him.

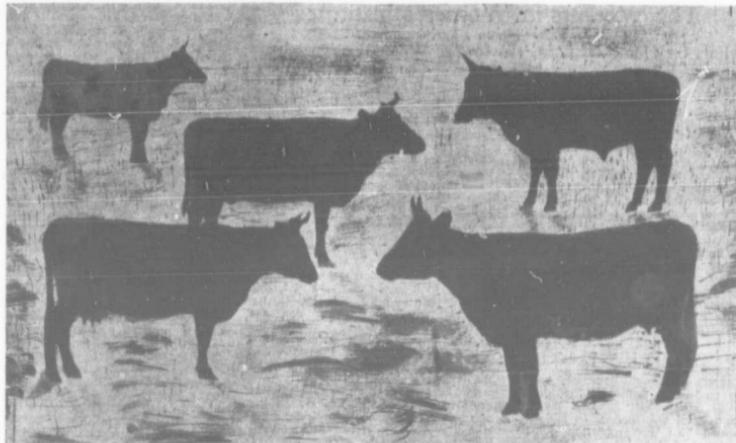
An important point fully discussed was of what material to make whey tanks. A good solid, well-made cement tank, properly set, would fill the bill, but it should be elevated. Cement tanks are universally used in New Zealand. A tank made of the same material as an iron boiler is good, but too expensive. A galvanized iron tank was good. A strong demand was expressed for a better quality of tin in milk cans.

TRANSPORTATION

Mr. Ruddick took up the preservation and safe transportation of butter and cheese. The finest Canadian butter gives good satisfaction, but is not uniform, and is said to deteriorate when landed in England. Should be kept cool en route. Of 400 cars examined, the temperature ranged from 46 degrees to 60 degrees. But this service was better than what the creameries provide at the factories. Butter may be held a few days at the factory at 40 to 45 degrees but no longer. Butter at the creameries should be kept at 30 to 36 degrees.

To prevent mould, thoroughly disinfect creameries by washing whole inside with a solution of a pint bichloride of mercury to 1000 parts of water. Formalin may be used as a spray.

Mr. Ruddick then outlined the work of the cool-curing stations since their inception, with a special reference to



Group of Pure-bred Ayrshires, property of W. H. Tran, Cedar Grove, Ont.

that of 1903. In 1903 over 47,000 cheese were handled at the four stations. The saving in shrinkage by cool-curing in 1903 was 1.50 per cent., and in 1903, 1.23 per cent. From July 8 to August 25 the shrinkage on a cheese in the ordinary room was 3 lb. 1 oz., and in the cooling room 1 lb. 1 oz. per box of 85 lb. The quality was much improved by cool curing.

Paraffining helps to preserve weight and prevents mould. Many shipments landed in Britain with 25 per cent. of the boxes broken. Boxes should be cut 5 to the inch, and well made.

MILK FOR CHEESE-MAKING

Prof. Dean, in an address on this subject, emphasized the need of attention to first materials, such as the soil, the plants grown on it, and the animals. Alfalfa was recommended as a member of the clover family that would reduce the cost of milk production by nearly one-half. Study the individual animal. At the College the highest individual cow record was 10,214 lbs., and 418 lbs. of fat given by a grade Holstein, and the lowest, 3,775 lbs., and the average for the herd of 30, 6,711 per cow, and 276 lbs. of butter. Cool milk to 60 or 65 degrees.

BUTTER-MAKING

The last day of the convention was devoted chiefly to butter-making. Mr. J. W. Mitchell, Supt. of the Kingston Dairy School, gave a well prepared paper on export butter. Milk for butter should be pasteurized. A good clean-flavored active starter should be used. He attributed some of the rancid flavor in butter to pouring warm cream of one day into the cool cream of the previous day.

Instructor Publow discussed the work of the coming season. He thought inspectors should have the power of health factories that were not in good sanitary condition. A better appearing cheese would be the demand in future. To show the loss to the patrons by sending poor milk, Mr. Publow stated that at one factory the inferior milk had been made up separately. One pound of cheese was made from 10½ pounds of the good milk while it took 14 pounds of the inferior milk to make a pound of cheese.

OFFICERS FOR 1904

The officers elected for the present year are: President, D. Derbyshire, Brockville; 1st Vice-Pres., J. R. Dargavel, Elgin; 2nd Vice-Pres., John McTavish, Vancamp; 3rd Vice-Pres., L. L. Gallagher, Wilton; Directors: E. Kidd, M.P., North Gower, Wm. Eager, Morrisburg, Levi Patton, Brockville, James Whitton, Wellman's Corners, T. B. Carlow, Warkworth, H. Glendinning, Manilla, and James R. Anderson, Ameliasburg.

The financial statement shows the Association to be \$3,000 behind. The increased instruction had caused a large additional expense.

Dairy Don'ts

Don't turn the cows out in the cold Autumn rains and storms.

Don't scrimp the feed when the cows leave the pasture.

Don't curry and brush the cows with the milking stool.

Don't keep a cow that is not earning her feed.

Don't breed to a scrub sire.

Don't milk with wet hands.

Don't allow the milk to stand in the stable.

Don't mix water with the milk to raise the cream.

Don't guess the temperature of the cream by sticking the finger in it. (A thermometer costs 25 cents.)

Don't salt butter by guess, weigh or measure it.

Don't use cheap, coarse salt, only fine dairy salt is fit.

Don't touch the butter with the hands.

Don't think rinsing will keep cans and dairy utensils clean; add boiling water, washing powder, muscle and sunshine.—L. W. Lighty.

How to Mix Cement

Cement is coming gradually into use as a substitute for lumber the building of floors and the erection of silos and other farm buildings. The value of the cement structure will depend to a large extent upon the proportions in which to mix cement, sand and gravel. The amount of cement to use will depend upon the character of the gravel and sand, and therefore, it is difficult to lay down any hard and fast rule that will exactly serve in all cases. The following is a test or method recommended by the United States Government for ascertaining the right proportions to use and may be found helpful to those erecting cement structures:

Take of gravel a certain measure and shake it down to compact it; strike off the top with a straight edge; then measure water and pour into gravel until all voids are filled. The water used will show the amount of the mixture of cement and sand that will be required to make a proper concrete.

Repeat the operation, using sand instead of gravel, and the amount of water absorbed by the sand will show the amount of cement to add to the sand. But it must be borne in mind that the cement and sand mixed with water will not fill the same amount of space as before putting together and adding the water. That is, one cubic foot of cement and two cubic feet of sand will not, when mixed with water, make three cubic feet of mortar.



R. G. Murphy, Secretary of the Eastern Ontario Dairymen's Association.

The Workers in Women's Institute

Hints on Home Making—Women's Work—Co-operative Laundries

A few years ago there was not such a thing known in Ontario as a Women's Institute, but during the week of the Fat Stock Show at Galt, over 125 delegates from the 53 institutes now existing gathered in convention to discuss means and ways of making that valuable institution of still greater usefulness. Superintendent G. C. Croelman, owing to illness, could not be present, and his cheery presence and wise counsel was much missed.

It seemed but fitting that the first meeting held in the new McDonald Institute should be composed of a body of such representative women from all over our province.

Miss Laura Rose occupied the chair, and gave the opening address. After heartily welcoming the ladies, Miss Rose based her remarks on a question lately put to her by a society girl, "Will this training along domestic science lines tend to a refinement of kitchen work?" Miss Rose showed that a good, honest work was honorable and was respected just in proportion to the amount of skill and brains there was put into it. Housework has been too long confined almost entirely to the ignorant classes, and as a consequence the work was thought ignoble, but when this most important of all work passes into the hands of educated, skilled workmen, the service will be better, they pay more in proportion to the importance of the work, and the workers will find their proper place in society.

Dr. Mills, of the O. A. C., gave a splendid address, pointing out the work taken up in the McDonald Institute. There are two years' courses for teachers and housekeepers, while three-month courses make it possible for those to attend who can only leave home for a short time. In the course of the work is taught, from washing clothes to making dresses. The chief aim is to make our girls more capable to care for homes. The foundation of our country depends on the condition of its home life, and the home life is determined mainly by the mother in it. Dr. Mills paid a high tribute to the generosity of Sir Wm. McDonald, who, by his princely gift, made the McDonald Institute a possibility.

WOMAN'S WORK

Miss Agnes Smith presided at the afternoon session and after a few earnest words regarding the Institute work, introduced Miss Martha Van Rensselaer, of Cornell University, Ithaca, N. Y., the chief speaker at the convention. Miss Van Rensselaer has a manner of address distinctly her own—deliberate, forceful, and showing such a reserve of power and information that she made listening a restful pleasure. She spoke on "Woman's Work," and instead of going into details of the various occupations of women, as might naturally be expected, she enlarged on methods of saving strength and steps, and the manner of doing properly simple things. She emphasized the importance of using the limbs more and saving the trunk of the body, which holds the vital organs. This she illustrated by picking up a paper, first by bending directly over and grunting as she did so, then by bending the knees and so not straining the body. Men do not tire as much as women because they know the art of working without so much body motion. A man saws wood all day and does not complain; a woman washes a few hours—a similar exercise to sawing wood—and she is tired out. The man uses his arms, the woman both her back and arms.

Our houses are not built with a view to saving steps, nor are they appointed so as to be most convenient. The pegs are put up too high, the sink and stove are too low. Many women tire because they do not stand properly. They allow the weight of the body to rest on the heels instead of on the ball of the foot. This strains the muscles in the back and also makes a woman a bad figure. Miss Van Rensselaer here used a rather striking and amusing illustration. She said, when we build our homes we plan to have the parlor and sitting rooms in the front, but the kitchen and all that pertains to it in the rear. Now, let me suppose that the head and chest—the intellectual and emotional—represent the parlor, while the digestive organs the kitchen, and see that the former is kept to the front and the latter held well in the rear. This gives the right poise to the body and dignity to the carriage.

The great need of the women of America is to learn the meaning of the word *rest*. A German physician, after studying American faces, said: "They have some terrible disease—what I should call Americanitis. When we go to church or to a concert we lean forward in a tense attitude instead of settling ourselves comfortably and resting while we listen. We go to the station and find the train half an hour late, then we impatiently stamp the foot and quite upset our nerves over the delay instead of quietly contenting ourselves until the belated train arrives. We want to learn to let go of ourselves, to sit or lie down as frequently as we can, and relax all our muscles—then shall we have better health and better tempers."

Miss Van Rensselaer's talk will do good, for she had an audience before her of earnest workers, willing to put into practice any good suggestions and to tell to others the helpful advice given. Mrs. Willoughby Cummings, of Toronto, gave a detailed account of the work taken up by the National Council of Women, and how closely the interests of the Council and the Women's Institute were connected, and that by working together greater influence could be exerted in having needed reforms brought about. All are working to make happier homes and better citizens, and to succeed we must be united for the common good of mankind.

Colonel Ferguson, of Scotland, was introduced, and the ladies enjoyed his happy little speech, given in the broad Scotch.

Wednesday morning session was devoted to the reading of reports and discussion. Miss Blanche Maddock presiding. Space does not allow for the giving of these reports, but nothing would tell more forcibly the strong hold the Institute has taken and the genuine approval it has met with. Halton Co.

carried of the palm, having five branches with a membership of 507. The discussion was mainly on the source and disposal of the Institute finances. Although much talking was done, nothing definite was arrived at.

WOMEN'S INSTITUTES AS SCHOOLS

Miss Lella Millar took charge of the last session. Mrs. Andrew Kenny gave a talk on "Women's Institutes as Schools of Domestic Science." Mrs. Kenny said the Institute is to the women in the country what the domestic science school is to the women of the town. The ladies get together, relate their experiences, tell of their failures and successes, and so prove mutually helpful. The Institute has been the means of developing many a hidden talent and making women think better of themselves and vastly better of their neighbors. That women should know something of business matters was brought out by reference to Prov. 32:16: "She considereth a field and buyeth it," which showed an understanding of the soil and its value. There would be less business failures, Mrs. McVish said, if women took more interest in their husbands' affairs and knew how matters stood. Plainer living, higher thinking, and more rest were the essentials which would make better women of our Canadian girls. Teach children to be industrious in youth, even encourage them to make patch-work quilts, and not to leave them playing the piano while the mother is working herself to death in the kitchen.

Miss Millar introduced a discussion on co-operative laundries, saying they could be carried on in connection with creameries and cheese factories. Many ladies said they would welcome such an arrangement.

The delegate from South Ontario brought in a resolution that bakers' bread should be put into paper bags before leaving the bakery.

Miss Agnes Smith, at the request of Mrs. Willoughby Cummings, had the ladies copy the following questions. Answers to be sent in later in order to ascertain somewhat of existing conditions:

1. Is farm life a desirable one for women?
 2. On how many farms is milking still done by women?
 3. How has the establishment of dairies, cheese-factories, and egg-collecting affected the pocket money of women?
 4. On how many farms are daughters remaining at home to help mother?
 5. What are the occupations of the daughters who have left home?
 6. What is the average acreage of the Canadian farm and how much help is employed?
 7. On how many farms is good help engaged by the women? If there is illness, what is the disease?
- A pleasant "At-Home" presided over by Miss Watson, lady principal of the McDonald Institute, and Mrs. Mills, brought this successful convention to a close.

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The within makes the without. This applies with force to the home. It is true the same house may hold an exciting husband and a forgiving wife; a kind brother and a selfish sister; an indifferent child and a watchful parent; yet from this home soil is developed a family life as distinct as any physical type which can be easily traced from child to parent.

Every Year

There come new cares and sorrows
Every year;
Dark days and darker morrows,
Every year,
The ghosts of dead loves haunt us,
The ghosts of changed friends taunt us,
And disappointment daunt us,
Every year.

"You are growing old," they tell us,
Every year;
"You are more alone," they tell us,
Every year;
"You can win no new affection,
You have only recollection,
Deeper sorrow and dejection,
Every year."

Too true! Life's shores are shifting,
Every year;
And we are seaward drifting,
Every year;
Old places, changing, fret us,
The living more forget us,
There are fewer to regret us,
Every year.

But the truer life draws nigher,
Every year;
And its morning star climbs higher,
Every year;
Earth's hold on us grows slighter,
And the heavy burden lighter,
And the Dawn Immortal brighter,
Every year.

—Albert Pike.

Our Queen at Home

By Sarah A. Tooley in the *Christian Endeavor*
Nov.

Queen Alexandra begins her day with very little more formality than any lady of the higher classes, performs her toilet with the aid of a maid or "dresser," and is not surrounded by a bevy of ladies-in-waiting, as was the custom at court in past reigns.

She invariably breakfasts in her own apartments; and, as every moment of the royal day must be utilized, the time succeeding breakfast is devoted to the discussion of matters of various kinds with the Hon. Charlotte Knollys, who for more than twenty years has been chief woman of the bedchamber to the Queen.

As the British public considers itself cheated if our beautiful Queen appears in the same costume twice, it is inevitable that the consideration of dress forms an important item in Her Majesty's day. Not only has time to be given to the selection and approval of new costumes, but there is the further choice of the dresses which she proposes to wear at the various public functions and private entertainments in the day's programme. In the busiest part of the season the Queen may have to make a

change of dress four times in the day. Never, probably, was any royal person more persistently besieged by begging letters than is our kind-hearted Queen, and a portion of each morning is devoted to a consideration of these and other documents of a philanthropic character.

By noon Her Majesty has usually attended to pressing business matters. She has approved or dictated replies to a variety of correspondence; has considered the merits of this or that institution desiring her patronage, and decided the amount to be forwarded to such and such charities; has intimated her pleasure to hear a rising musician perform, her willingness to view some work of art, or to give sittings to a painter or photographer. Materials and designs have been approved, and orders sent to the modiste and milliner.

Probably guests are expected at the palace, and the royal hostess assigns rooms and personally supervises little matters for their special convenience and comfort. In this respect the Queen is a most thoughtful hostess. She loves



OUR GRACIOUS QUEEN, ALEXANDRA.

to make people about her comfortable. She is careful to see that the rooms of her friends and guests have the pictures, flowers and little things calculated to give them pleasure. So far as matters of the culinary departments and the table go, it will be readily understood that, as the King has one of the first chefs in the world, with a little army of cooks under him, the Queen does not enter into this province of housekeeping. Her personal preferences are known and catered for.

After twelve o'clock Her Majesty, if the weather is tempting, will walk in the beautiful gardens of the palace, accompanied by her pet spaniels, and not infrequently takes her kodak to snap little scenes. If the weather is not inviting, the Queen will remain in her boudoir and pass the time before luncheon in family letter-writing. Scarcely a day passes without her writing to the King of Denmark while long epistles of sisterly gossip go constantly to Russia and Gmünden. Music has always been the Queen's favorite recreation; but today she devotes quite as much time to water-color sketching and photography, for which she has a special studio.

Next comes luncheon, at which the King and Queen spend a social hour with various members of their family.

Sometimes they are joined by the Prince and Princess of Wales, the Duke and Duchess of Fife, the young Princesses of Connaught, or one or another of His Majesty's sisters. They are rarely, if ever, without family visitors to luncheon.

Afterwards the King returns again to his state duties, and the Queen probably will receive in audience wives of distinguished foreigners or ambassadors before she sets out for her afternoon drive in the Park, provided that no special public function—which is more likely to be the case—claims the royal attention. The afternoon is also utilized by the Queen for calling on members of her family or private friends.

If Her Majesty takes tea at home, she is usually joined by children or grandchildren; and a very cosy and merry meal it is, when she herself pours out tea quite in the family style at a set table. The King, like any other busy man, puts in an appearance if he can.

The time which intervenes between tea and dinner is passed for the most part part in relaxation—family talk, music, reading, and letter-writing, until the time arrives to make the evening toilet, which, when the Queen is in London, is an important matter, as she invariably has some state concert, reception, or dinner to attend if she is not herself entertaining people at the palace or holding an evening court. No matter how busy the day has been, Her Majesty has to brace herself up for great social efforts in the evening, and it is not until most of us have enjoyed some hours of sleep that the Queen gets her well-earned repose.

And yet the calm, beautiful face of hers shows no wrinkles, and the hand of time has scarce left its finger on her perfectly moulded cheek, or spoiled the outlines of her graceful figure. Truly a woman of wonderful tact, endurance, and spirit, is Queen Alexandra, and in her own personality is an excellent recommendation for hard work.

The Way of the Good Woman

If some women would only bear in mind that they may need the world's good work themselves some day they would be more careful in what they say and how they say it. Charity is of thought as well as deed. It is not restricted to the feeding of the hungry and needed among the rich as among any other class. The woman who would be a pattern of her sex will cultivate a still tongue. If she would be a blessing to humanity she will temper justice with mercy, and above all she will keep her verdicts to herself when she sits in judgment on her friends.—*Philadelphia Telegraph*.

Others Think So, Too

"I think very highly of THE FARMING WORLD. Have been a subscriber for a number of years, and would not do without it."

H. COHEN,

Kimmount P. O., Ont.



Hickory

A Tale of the Lakes

By Eric Bohm

Author of "How Hartman Won."

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CHAPTER X.

"It's the safest place," said the captain to Ginger. "The Condor can't spare him, and it wouldn't pay to put him among strangers; though I always found Hickory a fellow to be trusted."

"So he is," said the mate, "and what's more, he knows how to mind his own business."

"For that reason we must keep a strong hold upon him. Once loosed it and he might bolt, which would be against our interests, even if he didn't blab."

"You are right there, captain."

"And to strengthen our hold I'll put him in my own house. Dr. Tweedle and the Chinaman to look after him, and my sister and Roxo to keep him straight."

"And generosity will bring it's own reward," said Ginger with a frown.

"Why shouldn't it?" in a questioning tone. "The lad will be glad to come back when he's well again. How long do you suppose it will take?"

"Two or three months, anyway, for the leg to get strong."

"I'll give him till Christmas. After that he can help to refit the brig."

"She needs it badly. This night's gale has rattled her worse than ever captain. How many years did you say she'd been running?"

"Forty odd, and it's twenty since I bought her."

On reaching Roxo Cove next morning, Ginger and Skittles helped Hickory over the gangway. Notwithstanding all their efforts the leg received many a wrench before they got him comfortably seated on a blanket laid out at the bottom of the boat.

"Skittles will row us over," said the captain, taking his seat in the stern.

"Won't you want another hand," asked the mate.

"No, Chin is a strong fellow and he will meet us. I leave the ship in your charge mate. In a few hours I'll be back again."

"Goodluck to you Hickory," cried Pickles.

"Keep your bed hot till your leg's set," shouted Cranks.

"Two months and a tiger," yelled Rozin from the upper deck; and then the sailors waved their caps as the boat floated out from the ship. They all liked Hickory.

"Good-bye boys. I'll soon be back again."

"Of course you will; but there'll be never a rise next time."

"I should say not, the last nearly finished him," said Ginger.

"How did the thing happen?" said Cranks, who never liked to hear Hickory's hazing referred to.

"A candle was left in the coal bin, and he fell when he went to take it out."

"That's a rum yarn," was the muttered comment. Pickles gave a long, low whistle and the men scattered to their different posts.

Hickory leant against a lazy-back behind Skittles who rowed.

"Does it hurt now?" the latter asked over his shoulder.

"No—thanks," was the answer.

The shock of the injury, the pain on moving, and the sympathy of the men as he put out a shore were almost too much for Hickory. The captain could see his face, but Skittles could not as he brushed away a tear. For some minutes the young man rowed rapidly, putting hundreds of yards between them and the ship.

"Steady—not quite so fast—we are on the shoal," suddenly cried the captain.

Slowing up, they swept lightly over a rocky ledge into deeper water. Then on past little islands covered with cedars and pines, round a headland and up a narrow cove, wooded with evergreens down to the water's edge, save for the little clearing about the boat house; while away back of all, upon the rising hill, a rambling and picturesque old house nestled among the apple and peach trees of the orchard.

"Hello Chin!" shouted the captain to the Mongolian, already watching their arrival.

"Yes, captaine. You homee, gollie, so glad."

"Is your missis home?"

"Yes, but missee away. Won't be home tree days."

A huge Newfoundland dog bounded down to the captain, almost knocking him over in the exuberance of his joy.

"Down, Nep! down sir; tie up the boat, Skittles. Then you and Chin can provide a stretcher, while I go to the house and see what can be done."

"I think I could walk sir," said Hickory, "if Skittles helped me I might hop on one foot."

"No, the men will carry you. Leg broken," he finished, turning to Chin.

"Too bad," replied the Chinaman, "make carry all right."

In half an hour Hickory was lying on a couch in a long, low room on the ground floor. Chin had gone for the doctor, the captain was talking in another room with his sister, and Skittles was alone with the invalid. Each of them seemed inclined to speak, and the former kept moving nervously about the room.

"I'll be terrible glad when you get back," he hurried out at last.

"So will I," said Hickory.

"The Condor won't be the same without you."

"Nonsense, Skittles, you've only a few more trips before the season closes, anyway."

"The brig needs you about as much as we do. I believe the old thing is getting rotten. Those cross-beams below decks are—"

The door opened and the captain and the doctor came together.

"Here's the lad," exclaimed the former. "He's one of my deck hands, and (looking from behind the doctor very hard at Hickory) in the storm last night he fell down one of the hatchways and broke his leg."

"Hurt anywhere else?" curtly asked the doctor.

"No," said Hickory, "only my leg."

"Humph!" ejaculated the surgeon grimly, while his bushy eyebrows contracted over his parchment-like face. He was a man of few words. What he thought no one ever knew. He received impressions and gave orders, but discussion was not in his line.

"Thibia and fibula both broken clean, at the lower third, but not a bruise! Mighty peculiar, mighty peculiar! How did it happen, young man?"

"The doctor asked me that."

"Oh, I see! All right!" It will take a month to set, another to unite, and a third to carry your weight again. Pretty bad break, captain."

"Will it take as long as that?"

"He might be on crutches in a month, but it would be safer to wait two."

"Just as you say, doctor. He's a handy lad and worth keeping. You must do the best you can for him."

"Certainly," and with the aid of Skittles, he assisted the limb and put on the splints.

As he finished, the door opened, and the captain's sister came in. She was an old maid, and with her eagle's nose, looked like her brother.

"Lucky, this is my sister, Miss Hart," said the captain. "She's going on double duty as hostess and commanding officer. The doctor's orders too, like the captain's, must be obeyed."

"You are very good to me, captain," said Hickory. His room was both comfortable and cheery.

"Did you say Hickory," said the doctor, casting his steel grey eyes upon the captain.

"Yes. Does it surprise you?"

"Not in the least. You were always consistent."

"Glad to find a chap that knows it. But I must go. Come into my den, doctor, and have a glass of champagne before I start. You can go to the boat Skittles. I'll be down in a few minutes."

Giving his hand to Hickory, Skittles departed. Then the captain led the way to another room. But in doing so he caught the young man's eye, and pressed his forehead tightly upon his lips. The signal was understood and was answered by a nod of assent.

In another minute he was alone with Miss Hart. After arranging things, she spoke to him for the first time.

"The captain has told me about you," she said, "and we have concluded what to do. Chin will come in twice a day to fix you up and do what is necessary. Your meals will be sent in at eight, twelve and six. If you want anything particularly at any time you may ring this bell; but don't ring any offener than you need, do you understand?"

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Kidney Diseases
La Grippe
Leucorrhea
Liver Troubles
Malaria—Neuralgia
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Piles—Pneumonia
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Skin Diseases
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7 _____
C R A _____
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Liquozone—our trademark name—now appears on every bottle of genuine liquefied ozone.

"Thank you, I do; but about the doctor?"

"He will come when he sees fit."

"I am thirsty. May I have a drink of water?"

"Chin shall bring it to you. Do I understand that Hickory is your name?"

"Yes," he replied, his face reddening in spite of himself.

"Tough timber should he quick," she said frigidly, as she left him.

"But I am only a splinter," he mused to himself.

Early one morning, nearly a week later, Hickory jumped almost into the sitting posture, started by the words of a jingling song which floated in through the open window. The start gave him an extra twinge, but he was paid for it. Out there at the further end of a long verandah, a young girl in a white frock was spinning round and round, while she sang in a rich florid tone the quaint words of an old doggeral:

"Hickory, pickory, pins are prickety,
Whether long or short.

Splint, span, Tomm, began,

I twicely twaddeley twenty-one.

F double o t speels foot,
Carries his stocking in his boot
Cause he thinks he's smart."

Her brown hair was shaken loosely over her shoulders, and she looked very engaging in the background of sunlight and green, as he caught a glimpse of her saucy beauty.

"Hush, child. Didn't I tell you that's the man's name?"

"That's the reason I'm singing it," and again she commenced louder than before.

"Hickory, pickory, pins are prickety,
Whether black or white—"

But a laugh floated through the open window from the invalid's room. Quick as a flash the singing stopped, and the girl bolted into the house.

"There, what did I tell you?" exclaimed her aunt, "you the captain's daughter, and to sing such a silly thing as that. Will you never be anything but a Tom-boy as long as you live?"

"Who cares?" replied the girl, tossing her head. "He's only one of papa's sailors. I'll sing it twice over if he laughs again."

Roxy was a spoiled child and loved to tease her aunt. Having a man in the house of the name of Hickory gave her another opportunity; though to do her justice, she had no wish that the invalid would either see or hear her. If it had not been for this little occurrence, Roxy would have gone to see him that very day; but there was a full tone in Hickory's laugh that made her color a little; and she concluded that she would not go near him for some time yet, notwithstanding her father's message, that she, as well as her aunt, should look after him.

Hickory heard her voice often. Her ringing laugh from a distance would echo through the doorway; and now and then he would catch a glimpse of her as she passed along the corridor, but that was all.

The doctor visited him regularly and Chin attended to most of his wants. Still, during the first week he felt lonely; and it was not until after Roxy's arrival that his spirits rose. The pleasure of hearing her girlish voice and of knowing that she was in the house was

enough for him. There was a livelier ring to things, a pleasanter atmosphere, for which he was grateful, even though she did not come near his room.

At noon, on the third day after her return, however, there was a sharp little rap at his door. He had not noticed the approach of footsteps.

"Come in," he cried.

The door opened, and to his astonishment Roxy came in with his tray.

"You don't know me," she exclaimed, "but I'm the maid, and I've brought your dinner."

"It is very good of you," he replied, looking at her with an amused face. "I think I had the pleasure of seeing you before."

"When was that, pray?"

"It was the day after you returned, when you sang that funny little song."

"Hickory pickory?"

"Yes."

"Shall I sing it again?"

"If you like it. Is your name Hickory?"

"That's what they call me."

"I'm not the maid at all," she said, "but the captain's daughter; and I've a right to ask questions."

Hickory colored. He felt sure she would ask things that his word forbade him to answer.

"Now I want to know, is Hickory your proper name?"

Her big brown eyes were riveted upon him. It was enchanting to have such a bright, fresh-looking face, so full of animation and so near, and it set him thinking fast and hard. But he must not give up the ship even to Roxy.

(Continued on page 73.)

SUNDAY AT HOME

Warp and Woof

Before He formed a star
Our God arranged our lot;
Our little lives were planned afar
When we as yet were not.

Time hath no aimless strands,
God warp and woof combines;
Life's loom is in His holy hands,
His shuttles know their lines.

He loved us when as yet
We had not seen the sun;
God's forethought is man's coronet,
And love by love is won.

He purposed all He sends,
He knows what us awaits;
He marketh now the distant ends
Of paths to hidden gates.

All acts His eyes foresee
And never choice constrain;
So willeth He that we are free
His grace to love or gain.

His love hath filled the past,
An ocean without shore;
Our purchased souls Him, first and
last,
Love, trust, obey, adore.

—Joseph Cook.

A Code of Moral Law

Temperance.—Eat not to fullness;
drink not to elevation.

Silence.—Speak not but what might
benefit others or yourself; avoid trifling
conversations.

Order.—Let all your things have their
places; let each part of your business
have its time.

Resolution.—Resolve to perform what
you ought; perform without fail what
you resolve.

Frugality.—Make no expense, but to
do good to others or yourself; that is,
waste nothing.

Industry.—Lose no time; be always
employed in something useful; keep out
of all unnecessary action.

Sincerity.—Use no hurtful deceit;
think innocently and justly; and if you
speak, speak accordingly.

Justice.—Wrong none by doing inju-
ries, or omitting the benefits that are
your duty.

Moderation.—Avoid extremes; for-
bear resenting injuries.

Cleanliness.—Suffer no uncleanness in
the body, clothes or habitation.

Tranquility.—Be not disturbed about
trifles or at accidents, common or un-
avoidable.

Humility.—Imitate Jesus Christ.
—Franklin.

The Saviour on the Shore

By Prof. McFadyen

Oh! the paths of the lives that fail,
prepared by those toiling men upon
the lake. Out upon a troubled sea,
working, it may be, deep into the night,
even into the gray dawn, toiling long
and catching nothing—such are some
of us.

And when in some quiet mood in the
late night, or the early morning, a voice
comes sounding across the waves, "Have
ye any meat? have ye caught anything?"
all we can say is, "No." Our souls are
weary and hungry and we have nothing
to eat.

Now, why should this be so, when all
the time there is One standing upon the
shore, longing to tell us where to cast
our nets? We think we know well

enough how to look after these nets of
ours, yet we catch nothing, because we
do not have a glimpse of that blessed
Presence watching patiently, not far
away, to attract our foolish eyes.

It is this that makes the difference
between life and life. One man sees
Jesus, another sees Him not. Not to
see Him is to fail, to toil for years and
catch nothing. To see Him is to
triumph.

How Gratefulness Helps

Gratefulness for the mercies of God
is an open gateway for righteousness to
get into a man's life. It is the realiza-
tion of God which men chiefly need to
make them think of and care for right-
eousness. When a man gets the sense
that an eternally righteous God is pre-
sent and looking right down into his
heart, he begins to long to have that
heart cleaned up and made fit for the
divine inspection. But with the un-
spiritual lives that most of us lead, it
is hard for the Father to attract our at-
tention. Sometimes he must smite us
heavily to make us understand that he
is near. But we can feel very certain
that he does not wish to be obliged to
use that way; that he loves much better
to make himself known to us by heap-
ing our lives with favors from his
bounty. What a pity that so many to
whom he appeals in that winning way,
never make any response to him a
whole life long. But when a little un-
derstanding of whence blessings come
and what they are meant for, creeps
into a man's mind, he not only begins
to feel thankful, but he certainly must
feel some impulse to please his great
Benefactor. All genuine thankfulness,
therefore, must help us to righteousness.

Thoughts for the Day

We learn virtues by practicing them.
There is more happiness in caring for
others' needs than for one's own selfish
ease.

It is better to sacrifice one's love of
sarcasm than to indulge it at the ex-
pense of a friend.

One's own comfort deepens as we are
the means of comforting others.

The best thing to give your enemy is
forgiveness; to an opponent, tolerance;
to a friend, your heart; to your chief
a good example; to your father, defer-
ence; to your mother, conduct that will
make her proud of you; to yourself, re-
spect; to all men, charity.

A Plain Little Every-Day Prayer

Most pitiful Son of God, who came
down from God to live with and work
alongside of men, Thou knowest the
world and its temptations and trials,
and Thou knowest the world to come
after this. I beseech Thee to explain to
me what to do day by day. Help me to
be strong, to persevere in the ways of
right living, that I may make headway
out of the wilderness of sin and be able
to resist the allurements of evil. In
weakness and sickness nurse me and
strengthen me to get over the rough,
stony places. If ever I am disposed to
turn aside, smite the enemy of my soul
and disappoint him. Saviour of the
world, and by Thy infinite grace my
Saviour, I rest wholly upon the arms
once stretched out for me upon Cal-
vary's cross. Amen.

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Improved Steel Frame.	5 1/2 "	5 to 20 "
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THE BOYS AND GIRLS

The Moo-Cow-Moo

My pa held me up to the moo-cow-moo
So close I could almost touch,
En I fed him a couple of times, or two,
En I wasn't a fraid-cat—mooch.

But of my papa goes into the house,
En mamma, she goes in, too,
I just keep still, like a little mouse,
Fer the moo-cow-moo might moo!

The moo-cow-moo's got a tail like a rope
En it's ravelled down where it grows,
En it's just like feeling a piece of soap
All over the moo-cow's nose.

En the moo-cow-moo has lots of fun
Just swingin' his tail about;
En he opens his mouth and then I run—
'Cause there's where the moo comes out!

En the moo-cow-moo's got deers on his head,
En his eyes stick out o' their place,
En the nose o' the moo-cow-moo is spread
All over the end of his face.

En his feet is nothing but finger-nails
En his mamma don't keep 'em cut,
En he gives folks milk in water-pails
Ef he don't keep his handles shut.

'Cause ef you er me pulls the handles,
Why
The moo-cow-moo says it hurts,
But the hired man he sits down close by
En squirts en squirts en squirts!—
—Saturday Evening Post.

Why She was Popular

A queer old man once made a tea party for all the little girls in the town; and when they were all gathered in his front yard, in white dresses and carefully tied sashes, he offered a doll for the most popular little girl in the crowd.

But half the children did not know what "most popular" meant. So he told them it was the best-liked little girl. All the children voted, and Mary Blain got the doll. Mary was not the prettiest nor the cleverest of the children, but she got the doll.

"Now," said the queer old man: "I will give another doll to the one that tells me why you all like Mary the best."

Nobody answered at first. But presently Fanny Wilson said, "It's because Mary always finds out what the rest of us wants to play, and then says, 'Let's play that!'"

The old gentleman said that was the best reason he ever heard, and he was going to try for the rest of his life to find out what other people wanted to play, and then say "Let's play that!"

Two Prize Essays

London *Tribune* gives the following "Essay on Hogs," written by a school-boy:

"The hog is called a hog 'cuz he makes a hog of himself. It runs in the family. All hogs are hogs. The hog has two sides to his character; one of which is good to eat, and the other we can't so cordially admire. As an article of diet the hog is one of the warmest friends to the hu-

man race that I know of. Most of him is good for food, and the rest is useful in making sausages, bristle brushes, and other utensils. Nearly everything about him is palatable and his voice. The latter always seems to me to sound as if it had kind o' soured. It is said that you can't make a silk purse out of a sow—h'm—lady-hog's ear. I have never heard of any fool big enough to try to. As a citizen the hog is not so warm. His manners and instincts are gross in the extreme, and his sole ambition seems to be to eat from early morn till far into the night. When a man is dead he becomes the late Mr. So-and-So, and we say nice things about him. When a hog is dead he is pork, and no often says, "Confound this pork!" When I eat too much pa calls me a pig. A pig is a hog's little boy. That is all I know about the hog."

HER OBITUARY ON THE CAT.

A twelve-year-old miss has written the following touching obituary on her late cat, an animal, apparently, of somewhat contentious disposition: "Nigereta died Thursday, August 27, 1903, at about 2.30 P.M., at his home on Grand Avenue. He was son of Mrs. Spitfire and grandson of Mr. Nigger Heels. He

tured; but only sure that all sides of her being grow in harmony. Culture does not mean music or French, but womanhood. Very few can be rich, a small number educated, but culture is for all. Be determined to know something, even a little, of the best history, the best poetry, the best biography, the best of art, the facts in science, and the best thoughts of the best minds—devote ten minutes each day to reading five or six solid books a year, not mere stories.

The best in style and sentiment is as cheap as the poorest. There is no excuse for reading trash, when the standard works on all subjects are as cheap as the poorest; no more than for walking in the mud when a clean sidewalk is provided. Not expensive but select reading gives culture. Gather a little standard library of your own; you will respect yourself, and others will respect you for it. Keep a scrap book: fill it with the best things. Nothing reveals a girl's line of thought more than her scrap book. Read and think; read a little and think much; read when at leisure, think when at work.

A Rocky Mountain Bruin

The accompanying picture shows a huge grizzly bear that was killed by the hunter in the Mountains of British Columbia. They are the biggest game in America, and are not only very fierce and powerful, but exceedingly hard to kill. The hunter, who can be seen in the picture, is one of the most famous hunters and trappers in the country, and



An immense grizzly bear killed in the Rocky Mountains of British Columbia.

was the only living child of the deceased Mrs. Spitfire. He was born Aug. 12, 1901, and was two years and fifteen days old at the time of his death. His occupation was prize fighting. He was a very good cat, peaceful and quiet in the daytime, but very noisy and fightful at night. His mother died when he was very young. His sisters and brothers, three in number, also died when they were young, thus leaving Nigereta alone in the world. He took up the occupation of prize fighting and was seemingly very happy until Thursday afternoon. It is thought that he was poisoned. So ended the brave and true-hearted prize fighter, Nigereta Spitfire."

A Little Talk With Girls

It is sometimes thought if a girl has been educated at a high class school, she must be cultured, but some such girls are the most uncultured of persons. One need not be rich or educated, or traveled, in order to be cul-

tured. In the encounter with the big fellow in the picture he lost one of a very fine pair of "bear dogs," pure-bred collies, which he had imported and trained to hunt the bear. The name of the hunter is W. Mansen, a half-bred Indian, who has spent his whole life in pursuit of game in the forests and on the mountains.

Some Conundrums

What letter will make a girl wed?
R will make Mary marry.

What pronoun belongs to the potato?
Eye (I).

Why is a man carrying a basket of loaves on his head sure to be ill-mannered? Because he is under bread (underbred).

What is the difference between a fault we have barely succeeded in conquering and an immigrant who is landing? One is just overcome and the other is just over.

HEALTH IN THE HOME

Cough Gently

Few people know how to cough properly. In fact, it never occurs to the ordinary individual that there is a right way and a wrong way of doing it. Yet it is a matter of no small importance. If every sign means a drop of blood out of the heart, as people say, every cough means some greater or less proportion of time knocked off one's life. Most people cough as loudly and forcibly as they can. Some chronic coughers seem a bit proud of the terrible noise they make. But it is a rather costly noise, for the simple reason that it tears and inflames the lungs.

The lungs consist of an extraordinarily delicate spongy tissue, which sometimes gets inflamed and choked with phlegm. When we try to get rid of this substance we cough. But obviously, if we remove it violently we must necessarily injure the delicate lung tissue. Therefore, train yourself to cough as gently as possible. After a little practice you will find it quite easy to do so. In that way you will do a minimum of mischief to the lungs and add years to your life.

The Benefit of a Yawn

A good wide, open mouthed yawn is a splendid thing for the whole body. A yawn is nature's demand for rest. Some people think they only yawn because they are sleepy. But this is not so. You yawn because you are tired. You may be sleepy also, but that is not the real cause of your yawning. You are sleepy because you are tired, and you yawn because you are tired.

Whenever you feel like yawning just yawn. Don't try to suppress it because you think it is impolite to yawn. Put your hand over your mouth if you want to, but let the yawn come. And if you are where you can stretch at the same time that you yawn, just stretch and yawn. This is nature's way of stretching and relaxing the muscles.

Don't be afraid to open your mouth wide, and yawn and stretch whenever you feel like it. Indeed, if you are very tired, but do not feel like yawning, there is nothing that will rest you so quickly as to sit on a straight back chair and lifting the feet from the floor, push them out in front of you as far as possible, stretch the arms, put the head back, open the mouth wide, and make yourself yawn.

Those tense nerves will relax the contracted muscles will stretch and the whole body will be rested. Do this two or three times when you are tired and see what it will do for you.

Much Virtue in an Onion

The idea of an onion cure may not strike the fancy of the aesthetic; however, the experience of those who have tried it is that it works wonders in restoring an old-racked system to its normal state again. There are three kinds of doses in the onion cure, or three onion cures, as you may choose to put it. One is a diet of onions; the other is onion plasters, and the third is onion syrup.

It is claimed by those who believe in the onion cure that a bad cold can be broken up if the patient will stay indoors and feed on a liberal diet of onions. It need not be an exclusive diet, but a liberal one. For instance, an

onion-cure breakfast includes a poached egg on toast, three tablespoonsful of fried onion and a cup of coffee. Luncheon of sandwiches, made of Boston brown bread, buttered and filled with finely chopped raw onions, seasoned with salt and pepper, makes the second meal on the schedule. For supper, the onions may be fried as for breakfast and eaten with a chop and a baked potato.

The strange efficacy of onions is well known to the singers of Italy and Spain, who eat them every day to improve the quality of their voices and keep them smooth. Onion plasters are prescribed to break up hard coughs. They are made of fried onions placed between two pieces of old muslin. The plaster is kept quite hot till the patient is snugly in bed, when it is placed on the chest to stay over night. Onion syrup is a dose that can be bought of any druggist and is claimed by some to be unequalled as a cure for a cold in the chest.

All this is probably quite true. For to be done to with onions, both inside and out, would be enough certainly to chase out any self-respecting cold.—Table Talk.

The Care of the Hands

A beautiful hand should be long, delicate and narrow. The skin covering it should be very fair or of uniform pale color, with a slightly plump back, devoid of protuberant veins. The thumb should reach the middle articulation of the index finger, the latter just a little lower than the nail of the middle finger. The middle finger should be longer than the ring-finger by half the length of a nail, and the little finger should stop at the second articulation of the ring-finger.

Sudden transition from cold to heat should be avoided for the hands, which should be washed only in tepid water, with a pure soap, not oftener than three washings a day. After washing with soap, rinse the hands thoroughly, always in tepid water, to which has been added a teaspoonful of perfumed glycerine.

If the skin of the hands is rough, bathing in either bran-water or marjoram-water will soften it and make it supple. Do not use fat substances to attain this same result, for although they are temporarily effective, they end by reddening the skin.

A woman desirous of keeping the beauty of her hands unimpaired should never go out without gloves.—*Woman's Home Companion*.

Cure for Round Shoulders

A physician has recommended the following movements for the cure of all except very "severe cases" of round shoulders, when braces are also sometimes a necessity: 1. "Raise arms before you shoulder-high; extend arms sideways; throw head back; straighten head; move arms forward; lower arms; repeat ten times.

"2. Stand erect; raise arms before you; rise on tiptoes, then throw arms as far backward as possible; sink again on heels, and drop arms to side; repeat ten times.

"3. Raise arms with elbow bent, shoulder high, bringing palms together in front of face; then, with elbows still bent, swing both arms vigorously back-

ward as far as possible even with the shoulders, palms looking forward. This should be repeated several times, but as the position is somewhat fatiguing, rest or change of exercise may be made between the movements.

As the clothing, if too tight or unyielding about or over the shoulders, may help to produce round shoulders, both the under and outside waists should be comfortable, and hands over the shoulders of garments made of elastic.

Run Down

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IN THE KITCHEN

How to Make Good Soup

Invariably the housewife who has a reputation for fine soups is the one who supervises the food left from each meal, and sees that no bone, unless burned in, and that, no scrap, have them perfectly dry; have a kettle of hot beef suet ready—it should be smoking hot—take from the fire to the back of the range while putting in the potatoes, stir with a fork so they will not cling together, set over the fire and cook—they should be a golden brown; skim out on a piece of cheese cloth thrown over the colander and drain; sprinkle salt over them.

Fresh meat will need to be purchased at least once a week for soup stock. For the purpose a piece of the shin of beef, with the bone which contains marrow, a knuckle of veal for additional gelatine and the cold meat and bones which have been saved should all soak in cold water for half an hour or so, and then be brought very slowly to a simmer. When the meat is cooked to shreds, and the knuckles fall apart it is time to remove the kettle. Many persons season the stock while it is cooking, but this practice has its disadvantages. In the first place vegetable juices will cause it to sour much more readily; besides, once it has been seasoned it is impossible to vary it so decidedly. Then too, in the daily scaldings of the stock, which is necessary if the fat is removed from the top, much of the flavor is lost in steam. It is an excellent plan to fill stone crocks, each holding enough for one day's supply to let the cake of grease form upon them, and when they are entirely cold cover them and place them in the refrigerator. Unstarved, and in a cool place, the stock will keep for two weeks.

To Cook Cod Fish

Pick up the cod fish fine, put in a granite skillet with one or two cups of cold water, according to quantity of fish, and warm gradually on top of the stove, but do not scald; after soaking ten or fifteen minutes, drain off the water and add sweet milk or cream according to the size of the family; when scalding hot, add flour and milk for thickening, according to taste, with butter, pepper and salt; as soon as thickened by boiling set off; time the cooking so as to set off about three minutes before serving; when ready to serve, stir in a well beaten egg and serve immediately. If the egg scalds in the milk it is spoiled. If it is not scalded, it enriches the milk like cream.

Three Ways With Potatoes

Creamed Potatoes.—Cut cold boiled potato into small dice and place in a stew pan with three tablespoonfuls of water—to prevent burning—and one-half pint of new milk to one quart of the potato. Heat slowly, stirring often, and when the milk is about half absorbed add a tablespoonful of butter and a half teaspoonful of flour. When this has boiled up once, add a beaten egg, cook one minute, season with salt and pepper and serve hot.

Potato Purée.—Two cupfuls mashed potatoes put into a saucepan. Add to this the yolks of two eggs, three tablespoonfuls of cream, one tablespoonful of butter, salt and pepper to taste. Stir constantly over the fire until the potatoes are very light and hot.

Take from the fire and stir in carefully the well-beaten whites of the eggs. Put the potatoes carefully into greased

pan-pans and bake in a quick oven until brown.

Saratoga Potatoes.—Peel large potatoes and leave in water over night; in the morning change the water, wipe dry and slice on a broiling; have them perfectly dry; have a kettle of hot beef suet ready—it should be smoking hot—take from the fire to the back of the range while putting in the potatoes, stir with a fork so they will not cling together, set over the fire and cook—they should be a golden brown; skim out on a piece of cheese cloth thrown over the colander and drain; sprinkle salt over them.

Hints to Housekeepers

Never put the sweepings of the room into the waste-paper basket.

When sponge cake becomes dry it is nice to cut in thin slices and toast.

A cup of hot water drunk before

sia. To set the black in home-colored woolen goods so it will not smut, soak the goods or wool over night in sweet milk, wring it out and dry, then rinse well through water, and the color will be as fast as can be.

Washing stains may be removed by putting the article in boiling water before washing it. When the suds have once touched them the stains are set and cannot afterwards be removed.

Do not set apart one day on which to clean your silver or scour your tinware; there is danger of its not being done at all. Have your cleaning material ready, and when you are "doing up" the dishes, after each meal clean and polish the silver tin you have been using. This is a good habit to cultivate.

To test cake in the oven, never insert a broom splinter, but draw it gently forward and put the ear close to the loaf; if it is not done there will be a little sputtering sound. When it is thoroughly baked there will be no sound.

A Simple Dessert

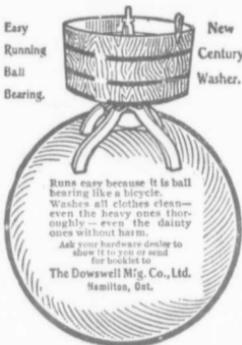
One of the best family desserts can be made of apples and stale bread: Peel ten good sized apples, core and slice them, and stew them to a pulp with sugar enough to sweeten them. Meantime thicken butter the sides and bottom of an oval earthen baking dish, and press all around them crumbs from the inside of a loaf of bread, having them nearly an inch thick; when the apple is done, mix with a tablespoonful of butter and one egg beaten. Put the apple into the dish without disturbing the crumbs. Over the surface put an inch thick layer of crumbs dotted with a few bits of butter, and bake the pudding until the crumbs at the sides are brown. Turn a platter, just large enough to enclose the dish within its rim, over the pudding dish, quickly turn both upside down so that the pudding will slip out on the platter, dust it with powdered sugar, and serve it hot."

Chloride of lime should be scattered at least once a week under sinks and in all those places where sewer gas is liable to lurk.

When the rubber rollers of your wringer become sticky, as they very often do after wringing kerosene, rub with kerosene and wipe dry and they will be nice and smooth.

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"HICKORY"

(Continued from page 67.)

"The captain ought to know and so should the mate. It's what they all call me."

"I'll sing that song again if you don't tell me."

"Sing away. I'll be delighted to hear you," and his smile broadened into a laugh.

"Hickory, pickory, sailor slipper,
When he scours the deck.
Jim, jam, hither and yon
Shivers his timbers. Splinters his man.

Will he drops in a hole,
And snaps like a pole,
Then he comes to wreck."

"Your song must have been made for the occasion," said Hickory with a grin. "It suits my case exactly."

"Does it?" she asked innocently. "I have not heard the particulars. But do tell me about your first name? Everybody has one you know. Yours, must be something else besides Hickory?"

"I'm afraid it's all I've got," was the answer.

"Don't you like your dinner? You needn't stop eating because I'm here." And she sat down on a chair near the window. "I'm only going to stay another minute. It is curious, I can't understand how papa's sailors all have such ridiculous names. I never heard of any of them having more than one, either Pickles, Cranks, Rozin, and the mate Ginger. You've got the best of the lot, if it is only Old Hickory."

"I'm proud of my antiquity," he commented. "Ancient as the hills."

"You look like it," she returned, elevating her eyebrows; and picking up the empty tray, without further greeting, she left the room.

Hickory did not see her again for several days; but he heard her voice often, and more than once in the evening the tones of the piano accompaniment to some ballad she was singing fell upon his ear. There were other voices, too, and many steps of youths and maidens as they came and went.

He had abundance of time to reflect during those long days and nights. Where was Elsie now? What was she doing? Had she forgotten him? Did she expect nearly three years to pass without a word from him, save the little note without address, containing the money he had returned. Could he stand the whole five years without seeing her again? Lately he had often felt impelled to break loose from the Condor, no matter what came of it. But, now that the captain had placed him in his own house, and with the fullest confidence was treating him like a son, the idea of leaving the ship before his time could not be entertained for a moment. Yes, he must stay with the Condor and the captain and the mate and Splinters, and brave it out, irrespective of all suspicion and mystery. Perhaps the fact that there was pretty daughter on the scene—although love might be out of the question—had something to do with forming his decision.

Indadvertently, too, he thought of Roxy. How absolutely ignorant she was of many things pertaining to the ship. He was glad that the captain had silently warned him. He would be constantly on his guard, and of what little he knew, not a word should be extracted either by Roxy or the doctor or any one else.

One day, with a rap on his door, Roxy came in with a friend. Her visits were always unexpected.

"I've brought another sailor to see you," she said. "This is Mr. Theodore Parker. Mr. ah—Hickory."

"How do you do," said the natty young man dressed in the uniform of the U. S. navy. "Miss Hart tells me

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that you are one of her father's men, lying up for repairs."

"Yes, shot in the ankle by a bolt from the blue," Hickory answered dryly. "I thought you fell," exclaimed Roxy with wondering eyes.

"Perhaps I did."

"It wasn't a bolt from the blue, then," said Mr. Parker with a smile.

"It was a thundering one from somewhere. A sharp snap and here I am." "Very comfortably fixed for a man from the Condor," said the marine superciliously.

"They are very kind."

"Hickory looked the young man squarely in the eyes.

"Of course. Miss Hart and Miss Roxy are always that."

"And so is the captain."

"No doubt, no doubt; but I have not the honor of his acquaintance."

"Roxy," called out the shrill voice of her aunt.

"Excuse me please for a minute," and in answer to the summons, leaving the visitor with the invalid, Roxy hastened away.

"How the deuce did your accident happen anyway?" said the subaltern, turning suddenly to Hickory. "I'm not a fellow that peaches, so you need not fear to tell me."

"What you do is nothing to me, neither are my affairs your business, unless the blating answer. Hickory felt like stretching him if he had only the opportunity.

"Touchy, ain't you?"

"I might be if it was not for this confounded leg."

"I didn't mean anything," said the fellow. He saw that Hickory was angry; and it might be bad policy to quarrel with any one in Roxy's home.

"I felt interested, for we are both sailors, you know; and it may be a pecky thing for a fellow to get his leg broke."

"Yes, it is," said Hickory, mollified, but still on his guard.

"You'll be going back as soon as you get well?"

"I expect to."

"No doubt it's nice and jolly and all that, barring the accident; but I tell you there's nothing like the service. It's marines or nothing for me."

"That's the way with some men," said Hickory, yawning, "there's only one thing they're fit for."

"Hickory, ickory, tars are slippery," sang Roxy, as she tripped along the hall to the room again, putting an end to their edifying conversation. "I suppose you two sailors are excellent friends by this time."

"Of course," said Hickory.

"Certainly," echoed Parker; "but I must be going. Sorry I can't stay longer. Bye-bye old man. If ever your captain wants to shy you, just let me know, and I'll see if it is not possible to get you a sit in the service."

"How dare you," cried Roxy, drawing herself up to her full height of five feet three. "There's no danger of the captain shying him; for he's one of the very best men papa ever had."

"Sensible, too," echoed Parker with a laugh. "Takes his smash up at the right time, close to the right place—I'd be jolly glad if I could do it."

And with this parting shot Parker left the room followed by Roxy. Hickory thought he'd like to squeeze the fellow, just for the fun of it. What right had he to insinuate about his own motives or his life? What did he know of the Condor or its business; or of the career of the captain, or of any of them? Did he really know anything, or was it all conjecture?

CHAPTER XI.

After the first month the doctor allowed Hickory out of his room and on

to the veranda. He was enchanted with the outlook; a flower garden that Chin kept in order; a shrubbery in which Nep, the big Newfoundland dog, made his lair; and mountain ashes planted before Roxy was born, looking down like sentinels over the trees of the orchard.

Here he saw more of the women of the family. Miss Hart, with her trim black curls, often sat beside him, and placidly sewed by the hour. Occasionally she talked, but never of his affairs. Whether this arose from indifference or direct intention, he did not know; but it was certainly a matter of personal relief, for which he was grateful. It was enough to battle with Roxy's questions without any being put by her aunt.

Miss Roxy Hart chatted enough for all; and now that Theodore Parker had gone to his post in the naval yard on the Atlantic seaboard, the presence of Hickory made a pleasant break in the monotony of his life. Roxy also brought him many a book to read, and whether of romance or travel, he perused them with avidity. Hickory was never willingly an idle man, and every passing incident, in that quiet home life, helped the days to speed by. By the time he was able to move about, Chin had made strong oakden crutches for him. They were a trifle heavy, but were natural; a stalwart muscular fellow, who suited him; and often afterwards, he remembered thinking that some time their weight might prove of direct utility. So, with his leg done up in starch bandages, he rather enjoyed swinging alone during the latter weeks of his sojourn on shore.

After a while the captain visited them again, leaving orders that Hickory was to remain until his limb was thoroughly strong.

"You'll need to be well on your pins this winter," said the captain. "The old boat is getting into bad shape, and it'll take every man of you to fix her by spring."

"I am glad papa said you were to stay," said Roxy, when she returned to the veranda, after kissing the captain good-bye. Hickory was seated there, for the October days were still very warm.

"Thank you. So am I," he replied. His pulse beat rapidly, for Roxy was very earnest. She continued:

"It will be just jolly to have you here for ever so long. It ain't a bit nice to have no man about the place but Chin. And Mr. Parker won't be here again until after pa comes back."

"I'm afraid I shall be a poor substitute for Mr. Parker," was his comment.

"You are not a substitute at all," said Roxy, "but just Hickory."

"Old Hickory, you mean."

"Yes," said Roxy, a wise look suddenly coming into her face. "You know very well Hickory is a put-up name; but as you won't tell me anything, I'm going to call you Old Hickory; and I won't say 'Mister,' either."

"I am satisfied," he answered.

"And to make sure, I'm going to christen you."

And to suit the action to the word, she put a white astor in his button-hole, she ran into the house to tell her aunt what she had done.

"You foolish child," exclaimed Miss Hart. "You should remember your position. You a young lady—he a simple sailor."

"He may be a sailor," Roxy retorted hotly, "but he is not simple. Besides, he's going away soon; he hasn't any sisters; and I'm going to have a good time with him, while I have the chance."

"How do you know he hasn't any sisters?"

(Continued on page 86.)

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Bees and Poultry

Feeding Bees in Winter

To gain information as to the best method of providing feed for bees in winter the following experiment was tried with six strong colonies of bees:

Four frames of sealed honey were taken from each of the six colonies, leaving the cluster on the four remaining frames. The four frames were left in the centre of the hive with a division board at each side, and some light packing was placed between the division boards and the sides of the hive. The wooden covers were removed and a large propolis quilt made of heavy canvas placed over the top of each hive. Over the top of the propolis quilt extra packing was placed to keep in the heat, absorb moisture and prevent draughts or upward ventilation. The bottom boards were left on as they came from the bee yard, leaving the entrances wide open.

The experiment was as follows:

1. Two colonies received maple sugar of the best quality.

2. Two colonies received candied honey and sugar.

3. Two colonies received partly filled sections of honey.

Each colony when put to this test weighed 31 pounds, and each was given five pounds of its particular food to start with. The experiment lasted from November 18, 1902, to March 22, 1903.

The two colonies fed on maple sugar consumed 11½ pounds each; they were examined every two weeks and water added to the sugar through holes in the tops of the cakes, keeping it soft and moist.

The two colonies fed on partly filled sections of honey consumed during the same time 14½ pounds each. There was for several reasons considerable waste in this test and if partly filled sections could be sold even at a reduced price it would be profitable to do so instead of feeding back.

The two colonies that were given candied honey consumed 10½ pounds each. The candied honey was moistened at intervals which made it easier for the bees to suck up.

Candied honey is made as follows: Take good, thick clover honey and heat (not boil it) until it becomes very thin, then stir in fine granulated sugar; after stirring in all the sugar the honey will absorb, take it out of the utensil in which it has been mixed and thoroughly knead it with the hands. The kneading makes it more pliable and soft so that it absorbs or rather takes up more sugar. The kneading operation with the adding of fine sugar should be continued until the dough is so stiff as to be quite hard to work. It should then be allowed to stand for a day or two, and if at the end of that time it is so soft as to run or to be sticky a little more sugar should be kneaded in. It should then be cut into convenient sized cakes and placed on top of the frames in such a way that the bees can get at it easily.

The colonies in all three tests came through in excellent condition. Any one of the three methods may be safely followed, but I would strongly recommend examining and weighing all bees in the first week of September. At that time every colony should have a good laying queen, and should weigh over 50 pounds. In seasons when there is no fall flow of honey all colonies in Langstroth hives weighing less than 50 pounds in September should be fed up to that weight at least. The best method for getting colonies up to the required weight is, when extracting to save several full well-sealed combs,

then remove some of the light ones out of the hives and replace them with the heavier full frames. If no honey is available feed sugar syrup. This latter plan is rather a tedious one and great care must be taken not to daub the hives or appliances as robbing at this season of the year is very easily started and very hard to stop.

Sugar syrup may be made as follows. Use the best grade of granulated sugar, two parts of one of water by weight. The water should first be brought to a boil, then the pan or vessel set back on the stove so that the boiling will not continue but the water be kept sufficiently hot to dissolve all the sugar.

The sugar should be poured in slowly and thoroughly stirred until all is dissolved. The syrup should then be fed in a lukewarm condition.—John Fixter, Apiarist, Central Experimental Farm.

Barred Rock Club

The Barred Plymouth Rock Club yesterday re-elected officers, and will put up a new \$25 trophy to take the place of the one presented by the late Geo. H. Bertram, M.P., and won three times in succession by I. K. Millard, Dundas. The novice class at the show had been very successful, and they had had a good year.

Eggs for Hatching

If you propose hatching chicks early, in order to have broilers in market when prices are high, you should make it a point to hatch from no eggs except such as are known to you to be worth using. It is only a waste of time to attempt to secure good hatches from eggs of all kinds mixed indiscriminately, and as the use of such eggs makes the matter of hatching simply guess work, no system can be practiced. If you buy eggs, pick out all the extra large ones, the small ones, the rough and misshapen ones, keeping only those that are of normal size, perfect shape, smooth and free from all defects, sending the others to market. Then buy more eggs, and make another selection, until you have a sufficiency. What is the use of putting eggs in an incubator when you will simply have to take them out again when testing them. If more attention were given the matter of selecting the eggs, the incubators would give better results.—Ex.

Moisture on Walls and Floors

Moisture very frequently collects on the walls of poultry houses, especially in winter. If tarred paper is used on the inside of a house it condenses moisture, because it is colder than the surrounding air of the poultry house. The same thing happens to a cement floor. Dirt floors cannot be kept clean except by frequent renewals of the earth. Board floors become saturated with the fluids of the droppings, and also assist in providing harboring places for rats. A cement floor is better than any, except that it is very cold in winter, and causes condensation of moisture. To protect the fowls, such floors should be covered first with an inch or two of dry dirt, and over the dirt the use of leaves or cut straw may be resorted to. Of course, this means labor, but labor is essential to success in the poultry business. To protect against damp walls, it is better to apply tarred paper on the outside of the house rather than on the inside walls.—P. H. Jacobs.

A Train Load of Turkeys

On Dec. 21 there arrived in New York a special train load of turkeys from St. Louis for the Christmas dinner of 32,000 families. The train consisted of nineteen cars. The turkeys were carefully packed in 2,000 boxes and a few hours after arrival were in the hands of the retailers for distribution. The shipment realized 25c. a pound whole-sale, totalling about \$100,000 in value.

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QUESTIONS AND ANSWERS

Cut on Horse's Foot

I have a horse with its foot cut by the corks of a shoe. What would be a good remedy?—G. M., Waterloo Co., Ont.

If the wound is very large there should be a stitch or two put in it. Make the stitches about three-fourths of an inch apart, and tie each one before taking another. Clip off hair from around of wound so that none will be doubled under, and bathe it with a solution, $\frac{1}{2}$ ounce of carbolic acid in 1 pint of water. If the wound is large, apply a bandage smoothly over it, just tight enough to keep the parts in place. A good remedy for a simple flesh cut is to run some hot tallow into the wound or a mixture of vaseline, sulphur and a little iodoform.

Scaling a Log

In reply to question in Dec 15th issue re rule for scaling a log, I submit the following: A simple rule to ascertain the number of feet (board measure) in a log is to subtract from the diameter of the log in inches, 4 inches (for slabs), multiplied by the length in feet, will give the correct amount of lumber made from any log.

Example:—How many feet of lumber can be made from a log which is 36 inches in diameter and 10 feet long?
From 36 (diameter) subtract 4 (for slabs), leaving 32. Take $\frac{1}{4}$ of 32, or 8, which multiplied by itself equals 64. Then multiply 64 by 10 (length), which gives 640, answer.

Example:—How many feet of lumber can be made from a log which is 24 inches in diameter and 12 feet long?

Solution:—From 24 diameter subtract 4 (for slabs), leaving 20. Take $\frac{1}{4}$ of 20, or 5, which multiplied by itself, equals 25. Then multiply 25 by 12 (length) which will give 300 feet, answer.

By using this rule (board measure) you can find the number of feet in any log.

T. CANNING, Kent Co., Ont.

Warts on Colt

I have a colt with warts of all sizes all over his upper lip and around his nostrils. He is in good condition. Are they contagious?—J. F. K.

Warts are not usually contagious. A good and simple remedy is to rub the affected parts thoroughly once a day with castor oil.

Blind Stagers

Is there any cure for blind stagers? I have a mare seven years old that is perfectly sound, with the exception of this trouble.—T. A. S.

Sometimes when a horse has an overloaded stomach he becomes dizzy and loses control of himself. This may be the trouble with the horse of T. A. S. If so, don't let her over-eat and give a good physic once a month. If the trouble is caused by a real affection of the brain it is incurable.

Sow That Staggers

I have a sow that has staggers. When she tries to walk she whirrs around to the right side all the time. Her appetite is poor. What is the matter with her?—M. F. T.

The sow may have some brain trouble, which might have come from being

struck on the side of the head. More than likely, however, the trouble is elsewhere. Pigs with the stomach badly out of order may be affected in this way. Give a good dose of epsom salts, say 3 or 4 ounces at one dose. After this operates, one-half teaspoonful granulated hypophosphite soda, 20 grains bromide of potash, given three times daily in slop or sweet milk, will do good.

ABOUT RURAL LAW

In this column will be answered for any paid-up subscriber, free of charge, questions of law. Make your questions brief and to the point. This column is in charge of a competent lawyer, who will, from time to time, publish herein notes on current legal matters of interest to farmers. Address your communications to "Legal Column," The Farming World, Toronto.

Wife Claims Wages

Q.—About twenty years ago a widower married a widow, who at that time claimed to be the owner of a farm of 50 acres, and for twenty years after the marriage he was the owner, from anything that appeared to the contrary. At the end of the twenty years his wife finds that he had, before the marriage, transferred the farm to his son, who now claims it. The husband became insane last year. I. Can the wife claim wages of the son for the work done by her on the place?—W. M.

A.—No; not unless she could prove a contract to pay wages, which, of course, under the above circumstances, she could hardly do. She might possibly have some other remedy under certain circumstances, as for instance, if the father (the husband) had lived on the farm, as you say, for 20 years to the exclusion of the son, he would acquire a title by possession, and his wife would then be entitled to one-third. If the conveyance to the son was not made till after the marriage, she would be entitled to one-third.

Purchase of a Sow

Q.—If C buys a sow from D, which was to be in pig by a certain bar, and it turns out that the sow actually shipped is not in pig. What remedy has C?—J. C. O.

A.—It would depend considerably on the terms of the purchase and the other circumstances. If C never saw the sow, and D warranted that it would be with young, C would be entitled to a reduction in the price to the value of the difference. If C saw the sow, and the Court come to the conclusion that C was to take his chance on the sow, C would have no remedy, but would have to pay the price.

Injured on the Street

Q.—The town of H. was engaged in draining certain land. In order to get an outlet it was necessary for them to run their drain, which was a shallow one, across the street. The drain was plainly visible in daylight. A. who was familiar with the locality and knew of the existence of the drain, was passing down the street when, just as he came near the drain, his attention being attracted by something, he turned his head and continued to walk on, he fell into the drain and was injured. He knew there was close at hand a safe passage way across the trench. I. Do you think the town is liable for damages?—G. L. T.

A.—No; the injury was largely due, if not entirely so, to A.'s own care-

lessness. The municipality did its part by furnishing one safe passage way over the trench. A.'s action shows that he was going along very carelessly in a place which he knew to be dangerous. We presume, from the above account, that the accident happened in the day time.

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Educational Features at Amherst

Not only were the addresses at the evening meetings of an educational character, but the judging carried on in the auditorium, where 2,000 people could comfortably witness the work, was so explained by the experts in charge, that the show from start to finish furnished a liberal education in stock husbandry.

The first evening was devoted to the opening addresses by leading public men. The second evening's programme was a full one.

W. S. Spark, of Canterbury, England, gave an admirable address, illustrated by stereopticon views upon the breeding and care of draught horses.

Hon. John Dryden followed, speaking upon the development of Canadian agriculture. It was a public duty to assist in the development of agriculture.

1. Because it is the greatest industry in Canada, creating more wealth than any other.

2. Because the largest number of our people are interested in it.

3. Because it is the foundation industry, all other industries depending more or less upon it.

4. Because the wealth produced through agriculture is evenly distributed all over the country. He thought that agriculture could best be promoted by organization, education, and co-operation. Already great success had resulted along these lines.

James Mills, President of the Ontario Agricultural College, was the next speaker. He esteemed it an honor to appear before this large Maritime audience. He was glad to know that the agricultural interests of Canada from one end to the other were progressing and developing. He had a good means of judging, for he met about 40,000 farmers every June, and he had no hesitation in saying that our farmers are today more intelligent, more refined, better dressed and altogether more prosperous than they were five years ago. There was also a greatly increased interest in agriculture among all classes. A few years ago our Canadian women were not interested in agriculture or live stock. In Great Britain the leading ladies of the land were not ashamed to go among the flocks and herds, in the fields or the stables, and now our own women were recognizing that this subject deserved their attention, as witnessed by the many ladies before him.

In the past, our women had had but little opportunity of receiving a practical education for the home duties of the farm. The home is the foundation of the state, and its mistress, therefore, most important. Good homes will turn out boys and girls with a great power for good. From neglected homes they are apt to receive the reverse influence. He then outlined the education in home economics, which the new McDonald Institute, at Guelph, was designed to give to young women from all parts of Canada. He also strongly urged the organization of Women's Institutes in the Maritime Provinces. These institutes were proving a great power for good in Ontario.

A breezy address by Prof. W. W. Andrews, of Mt. Allison University upon "The functions of air in agriculture," followed. Only a very small portion of our crops came directly from the soil, and the farmer had really to farm the air as well as the soil. Unless our soil was well filled with air, there could not be profitable plant growth. He gave the results of experiments, showing how the artificial introduction of air to soil had increased the growths of crops and bases on this a very forceful argument upon the importance of aerating the soil by drainage and cultivation.

Summer fallowing, sub-soiling, surface tillage and underdraining were all factors in letting air into the soil and so making possible greater activity of bacterial life. He told of the good results in plant growth from leaving tile drains open at the upper as well as the lower end.

W. A. McKinnon, Chief of the Fruit Division, briefly outlined the objects of the Fruit Marks Act and the duties of the fruit inspectors under it. The Fruit Division was also anxious to assist fruit growers in every possible way, and to this end was co-operating with the Provincial authorities in Farmers' Institutes, orchard meetings, spraying demonstrations and judging and packing fruit at the fall fairs.

His Division was now anxious to co-operate with local fair boards in arranging a prize list which would develop commercial fruit growing in the various best adapted districts, and the use of proper packages and packing for the export and domestic trade. He was also anxious to encourage co-operation in orchard management, spraying and marketing and uniformity in planting. He thought it was extremely desirable to make districts noted for the excellence of one or more varieties of apples and to secure the sale of these in large and uniform quantities.

W. S. Spark gave an address on light horses, and stated there was now an almost unlimited demand for weight carrying hunters and stylish carriage horses, and, to some extent, for polo ponies. Hunters, he thought, could be had by two crosses of thoroughbred blood upon good, strong, rooney mares. The best of carriage horses could be had by breeding Hackney stallions to large standard bred or half Thoroughbred mares, and polo ponies could be got from smaller thoroughbred blood. He strongly urged that a whole district should go into some particular line of breeding and so make that district noted for its stock and thus ensure a market.

Prof. F. C. Sears, of Wolfville, N.S., who judged the fruit exhibit, gave a short address explaining the lessons from the exhibit and pointing out some of the practices essential to successful apple growing.

THE VALUE OF PEDIGRES

Hon. John Dryden gave a very valuable address upon this subject. He pointed out the desirable qualities of sires and dams for beef raising and dairying and then showed how a record of animals with desirable qualities if they belonged to the ancestry of an animal made that animal of value as a breeder. The worth of a prepotent sire, he said, could scarcely be estimated. He was, of course, more valuable to some men than others, but even to the man breeding grades, excellence in pedigree of sire was a necessity. He also very clearly proved that an animal did not have to be imported to be well bred. Mr. Dryden's own experience, reputation and personality made this a most impressive address.

Hon. W. S. Fielding was a visitor on the closing evening of the show and gave a short address in which he stated that, while as Finance Minister, a function of his office was to prevent his colleagues spending too much money, he made an exception in the case of the Minister of Agriculture, and always felt like giving him more money than he asked for agricultural development.

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FINANCE ON THE FARM

Farm Bookkeeping

What! Keep books? Who ever heard of a farmer keeping a set of books?" remarked Mr. Townman. "What for? It don't cost anything to farm; why, when he needs anything, he just drives a bunch of hogs off to market and sells them and buys what he wants and plants the rest. He has no expense or loss—it's all clear profit with Mr. Farmer."

Doubtless, a few town people know differently, but I don't think that I exaggerate when we say that many of them think exactly what I have written above. They are probably right in regard to some farmers, as there are many who do not even keep a day book, depending entirely on memory—and some of them have a wonderful one; in many regards better than the fellow who does keep one and enters up once a month, or whenever he has time, which is a very poor plan, as the books are most apt to be forgotten. Every farmer should have a large blank book and every item bought or sold should be put down each day, with the date. It matters not what he bought, or what he paid out, from his hired help's account, or the nickel spent for his tobacco. In the same book should be kept the number of head of horses, cattle, sheep and hogs, and if possible the date of expected farrowing. When certain cows, calves, pigs and lambs were born and the number should be kept. I have made it a habit to name everything but the sheep, and many of them are known by name. And it is not a bad habit. If your help knows the names, it is much easier to say go look up Sallie than have to describe a calf that may have strayed away. When they are sold the price paid is placed opposite their names. As I know who their mother was, it is an easy matter to find out at the end of the year what each head of stock has been doing to help bear its part of the burden. On the first of the year both sides of the question should be added and a balance struck. You are then able to say whether the year has been a successful one. Often it will balance the wrong way, but possibly you have put up new fence, bought more hogs or cattle, etc., which will more than bring the balance up next year. If you have not been doing this, you will be surprised to see how little things count up in the grand total, if you will make an item of them day by day. Don't take my word for it, but begin now and start a book; don't omit an expenditure or a receipt, and see how you stand at the end of the year. There are years occasionally that all go to the bad, but they are few and far between, so don't get discouraged if your first experiment shows that you have nothing to the good.—F. M. Minor.

BOOKS AND BULLETINS

MANUAL OF CORN JUDGING.—Second edition of work on this important subject, by A. D. Shamel. Published by the Orange Judd Company, 52 Lafayette Place, New York.

BARN PLANS AND OUTBUILDINGS.—New, revised and greatly enlarged edition, modernized and brought down to date by Edwin C. Powell. It is a neatly bound book, 5x7 inches, 404 pages, 375 illustrations, and a most valuable contribution to farm architecture. Published by the Orange Judd Company, New York.

THE APPLE IN COLD STORAGE.—Bulletin No. 48. U. S. Department of Agriculture.

THE BANK OF TORONTO TORONTO, ONT.

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THE COMMON GOAT.—Circular No. 42. United States Department of Agriculture.

BUREAU OF INDUSTRIES.—Annual report of, for Ontario, for 1902. By Department of Agriculture, Toronto.

17-YEAR LOCUSTS.—Bulletin No. 107. State College of Kentucky.

SOME RESULTS IN STEER FEEDING.—Bulletin No. 108. State College of Kentucky.

BEE-KEEPING.—Evidence of John Fixter, Apiarist, Central Experimental Farm, Ottawa.

NINETEENTH ANNUAL REPORT.—Bureau of Animal Industry, Department of Agriculture, Washington, D.C.

ANALYSIS OF FERTILIZERS.—Bulletin 168. New Jersey Department of Agriculture.

STEER FEEDING.—Bulletin No. 48. Montana Agricultural Experiment Station.

SHEEP FEEDING.—Bulletin No. 47. Agricultural Experiment Station, Bozeman, Montana.

RAISING FRUITS AND VEGETABLES.—Evidence of W. T. Macoun, Horticultural Central Experimental Farm, Ottawa, before Agricultural Committee, 1903.

FOOD AND FOOD ADULTERATION.—Report of an address by J. B. Weems, Ph.D., Iowa State College, Ames, Ia., before the Retail Grocers' Association of that State.

FIGHTING THE SAN JOSE SCALE IN 1903. Bulletin 144. Agricultural Experiment Station, New Haven, Conn.

MODERN DAIRYING.—Report of the Kansas State Board of Agriculture for the quarter ending September 30th, 1903.

PRUNING.—Farmers' Bulletin No. 181. U. S. Department of Agriculture, Washington, D. C.

CHERRIES AND CHERRY GROWING IN IOWA.—Bulletin 73. Agricultural Experiment Station, Ames, Iowa.

FARMERS' INSTITUTE REPORT for 1902-03. By the Ontario Department of Agriculture.

POULTRY AS FOOD.—Farmers' Bulletin, No. 182. U. S. Department of Agriculture.

COMMON GOATS.—Circular, No. 42. U. S. Bureau of Animal Industry, Washington, D.C.

DOMINION SHORTHORN HERD BOOK.—Volume XIX, containing pedigrees of Shorthorn cattle, imported and American bred. Edited by Henry Wade, Toronto.



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In British Columbia

Mr. J. K. Anderson, Deputy Minister of Agriculture for British Columbia, writes: "There is an increased interest here in the live stock shows and sales in the Northwest Territories, with a consequent increase in the number of animals which have been purchased in the Northwest for breeding purposes. The bulls being bred in conditions similar to our own are better fitted for range purposes than the Ontario animals. The development of the creamery industry has had a most healthy effect on the demand for better dairy animals. Dairy cows have greatly increased in price and are now bringing from 10 to 20 per cent. more than they did a year or two back. This has also had the effect of stimulating the production of swine, and in view of the enormous imports of packing house products, there seems to be every reason to believe that the curing of hams and bacon on a large scale in this Province is not only profitable, remunerative, but would be an incentive to increased swine production.

"The chief drawbacks to the live stock industry are: The insufficient number of males which are provided by the small breeders; the class of sires which are allowed to roam at will; during the greater part of the year by small breeders and Indians. Undesired scrubs of the poorest description are very much in evidence; the overstocking of the ranges; the number of wild horses which infest the ranges; they are not only destructive to a much greater degree to the ranges than are an equal number of cattle, but the stallions run off tame mares which are thus frequently ruined or lost altogether.

"Among our needs are: The passing of enactments which would compel people to provide a sufficient number of good males; to compel those who have scrubs to keep them within bounds; the erection of cold storage buildings, so that all animals fit for beefing should be killed at their prime and marketed as required; the legalizing of the destruction of all unbranded wild horses.

"The stockers most suitable for the farmers of this Province are well-grown, young animals, accustomed to conditions similar to those which they would have to encounter in this Province on the stock ranges.

"The demands are for horses of medium weight and heavy draught horses, Clydes, Shires, etc.; cattle of beef types for the Upper Country and of milk types for the Islands and Lower Mainland; swine for the butcher, not necessarily of the bacon type, weighing from 125 to 160 lbs.; sheep of good mutton breeds, wool being of no value in this Province."

Nova Scotia Farmers' Association

The Annual Convention of the Nova Scotia Farmers' Association will be held at Truro on Tuesday, Wednesday and Thursday, February 2, 3 and 4, at which a large attendance of delegates from Agricultural Societies and County Farmers' Associations is expected. A cordial invitation is extended to all agriculturists and those interested in rural pursuits, to be present. This promises to be the most profitable convention ever held by the Association. Besides general business, addresses will be given by prominent practical agriculturists, and the afternoon sessions will be held in the new Live Stock Pavilion, at the Provincial Farm, when demonstration lectures, with live animals as objects,

will be given. As many as possible should take advantage of these lectures and new system of education by "demonstration to the eye."

Reduced rates by railway, by asking at starting point for a one-way first-class ticket to Truro, and a standard certificate, which on being signed by the Secretary at the Convention, entitles the bearer to a return ticket free.

Coming Events

Eastern Ontario Dairymen's Convention, Belleville, January 6-8, 1904.

Western Ontario Dairymen's Convention, St. Thomas, January 12-14, 1904.

Eighteenth annual meeting of the Dominion Shorthorn Association, Toronto, Jan. 19th, 1904.

Canadian Ayrshire Breeders' Association annual meeting, Toronto, Feb. 2nd, 1904.

Canadian Clydesdale Horse Association annual meeting, Toronto, Feb. 4th, 1904.

Canadian Shire Horse Association, annual meeting, Toronto, Feb. 3rd, 1904.

Annual meeting Canadian Horse Breeders' Association, Toronto, Feb. 4th, 1904.

Holstein-Friesian Association of Canada annual meeting, at the Palmer House, Toronto, on Feb. 2nd, 1904. G. W. Clemons, St. George, Ont., Secretary.

Combination sale of pure-bred stock, Amherst, N.S., on Feb. 5th.

Canadian Spring Stallion Show, Toronto, March 2-4, 1904.

Eastern Ontario Winter Poultry Show, Ottawa, March 7-11, 1904.

Central Canada Spring Horse Show, Ottawa, March 7-11, 1904.

Students Judging at Chicago

The results of the students' judging contest at Chicago have been announced. Iowa College won the coveted Spoor trophy for the third time and every first prize. The Iowa students were 300 points ahead of the Ohio students, who stood second. Of the special \$500 prizes for individual students, Iowa won \$200; Ohio, \$105; Kansas, \$75; Minnesota, \$75; and farmers' sons, \$45.

Quebec's Brand of English

A FRENCH-CANADIAN LETTER ABOUT A MISSING BICYCLE SADDLE.

The following letter, with only the names changed, was lately received by a Montreal firm of bicycle manufacturers. It was from one of their French-Canadian customers doing business in a little village in the Province of Quebec where English is evidently seldom used: "Mister T. J. Jones and Companee, Notre Dame Street, Montreal, P.Q.

"Dear Sir: I recceid de bicycl' with i by from you alrite but for why you dont send me no saddle, wat is de use of de bicycl' when she dont have no saddle. i am loose to me my kustomer sure ting by no having de saddle and dat's not very pleasure for me. wat is de matter wit you mister jones and companee; is not my moneys not so good like amoder manes. you loose to me my trade and i am very angree for dat and now i teils to you dat you am a fool's an no good mister jones and companee. I send to you back at wunce your bicycl' tomorro for shure bekwase you are such a foolishness peoples, your respackfulue

"J. B. St. Denis"
"P.S.—Since i wite dis letter i find de saddle in de box. excuse to me."

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Just mail your name and address a distinctly written letter to the nearest branch office and we will send you a magnificent Ladies' Scarf made of best quality French fur.

The Scarf has 180 long fur collar, 180 long neck, is an 18 inch wide, 18 inch deep, with a beautiful Nook design.

It will arrive at your door in 10 days and cost you only \$2.69 and you will have it for only \$2.00, and the agent will return to us within 10 days the price you pay. If you like it you will pay only \$2.00 and a express charge (optional), and you will have the greatest bargain in a lifetime.

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WAGER \$500 a bottle of CURINE will produce better results than any paint, liniment or ointment ever made, and we will give \$1000 for any curable case that it will not cure if used as directed. Every bottle is GUARANTEED TO GIVE SATISFACTION! Testimonials from the best horsemen in the world. Sold by druggists or hardware dealers or expressed from the manufacturers.

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Bright Star 4 yrs., Vol. XXVI, six Good Gift 1064, dam Lightness Lass, by Lightness Lad, g.d. Great Sterling by Young Duke of Hamilton 112.
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A number of other equally well-bred, sound, and individual size and quality to be seen at their stables, or arranged on inquiry.

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Stallions and Fillies. Also several choice Shorthorn bulls and heifers, for sale by

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Importer and Breeder of Galloway Cattle, Clydesdale Horses and Cotswold Sheep. Choice animals for sale.

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Breeder of Scotch-topped Shorthorns. Herd contains the fashionable strains such as Minnie, Ulys, Clippers, of straight Scotch breeding, and the best kind. Both sexes for sale. Correspondence invited. Visitors welcome.

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Tara Sta., G.T.R. P.O. and Tel.

Choice Scotch-Topped Young Stock.

A number of young Bulls of grand quality and choice breeding, along good beef and dairy lines.

JAS. FLEMING,
Nelles Corners, P. O.

and stood ready to outbid all comers, when the right kind of goods was put up. His herds enrolled the names of many now well-known imported animals, and in the stable, the well-known mare Columbine, for which he paid \$6,000, had more than one worthy stable mate. The business of importing, breeding and selling them is now carried on by at least two of his sons, J. M., at the old home, and J. Gardhouse, near by, and it may well be said that it was the Gardhouses that made Weston famous.

J. M. Gardhouse of the Rosedale Stock Farm, stands in the foremost ranks of Canada's exponents of the Shire draught horse, but there is nothing narrow-gauge about him, and he is a liberal patron of the Clyde as well. Shorthorn cattle and Leicester sheep also come in for their share of consideration at the Rosedale Farm as well. Among his Shire stallions is Sand Boy, recently purchased from Messrs. Bawden and McDonnell, Exeter, Ont. Combining great size with quality, a nice, well-filled, stylish top, he is deep and well let down, covers a lot of ground and stands on the right kind of underpinning.

Norley Baronet is a two-year-old with a weakly body, none of his merits, remarkable even in a Shire. He has a broad, strong back, well coupled and close broad heavy quarters and deep, thick middle, and a lusty vigorous appearance that commands him to the skilled horseman. He is by Hendrie Baronet, a horse well known to all Shire breeders and a few others, too, as a winner and one of the best in the old land. Sparkler, Vol. XXV, is of a somewhat more rangy type, upstanding and stylish. He is by Nyn Hichen Duke, a grandson of the famous Nyn Hichen Beauty. His dam is by Spark (2697), by Lincoln's Reserve, a get of Lincolnshire Lad. There is a striking amount of flash and style about this horse, all the more so in one covering as much ground as he does. Another fine individual is the Clydesdale stallion Royal Kerr, 1106, imported over a year ago. He is now in good condition and looking well, a horse of good balance and finish, good both in proportion and size. He is a get of Royal Champion, and traces back through Lord Lothian, and Topgallant, to Darnley, 222. On his dam's side he is a grandson of Prince Alexander, by Prince of Wales. If good breeding, good feet and limbs, good action and good conformation make a good horse, the Royal Kerr is a good one.

Among the cattle at the Rosedale Farm is to be seen the same quality obtained and maintained at the same cost of money, breeding and care. The herd, many of them imported, some bred at home, are strikingly uniform in their conformation and good quality. At the head of the herd is a solid, deep-fleshed, blocky bull, of the smooth, even kind, red in color, a son of Bapton Chief and Blytheism 16th, a cow recently sold for \$2500. A detailed mention of each member of this large herd would prove

WILLOW BANK STOCK FARM Shorthorns and Leicesters

HERD ESTABLISHED 1855

Scotch Houth and Bates families to select from, grand milking qualities being a special feature.

(Bull) ROSHICKUAN OF DALMNEY—1029—heads the herd.
Young stock of both sexes to offer; also Leicester sheep. JAMES DOUGLAS,
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GLENVIEW STOCK FARM CLYDESDALES and HACKNEYS All Imported Stock

A consignment of first-class Clydesdales and Hackneys just arrived from Scotland. Such horses as Banner of Gold, 2 yr. 1190; six Prince of Harrods (9577) dam, Jeanine (1562) by Prince Robert, sire of Hathawa.

Montrose Lawrence (1024) sire Prince of Albion (978) sold for \$2000, dam Lovers Lee (1007) by Darnley (222).

Others from equally celebrated dams. Interested purchasers call on or write to

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Six Imported Clydesdale Fillies,

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All have been bred to stallions. For further particulars address—

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Furvelled Cattle and Berkshire Swine. Young Stock of both sexes for sale. Write or call.

Sparta P.O. Station, St. Thomas,
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SHIRE and CLYDESDALE HORSES, Scotch & Shorthorn Cattle and Leicester Sheep for sale at all times. Write to or call on

J. M. GARDHOUSE,
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Telephone at house and farm.

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Clydesdale horses and a few lots of pure Scotch and Scotch topped shorthorns for sale, a number of fine individuals of Fries, Shorthorn, Leroy, Red Bone, and other choice breeding from such herd bulls as Roy MacIver, Royal Tim, Abernethy, etc. Also choice Dutch sires of young animals of both sexes for sale. Write or call on W. HAY, Tara P. O., and Station C. T. R.

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You've heard of the place with the fire-proof flooring made of good resolutions, but let us tell you that the House of Fortune is so paved also. There have been men who have resolved to use

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They have used for the fattening of cattle, hogs, etc., and have made and are making money by using it. Thus writes one of them :

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For some time I have been feeding your excellent preparation "Carnefac Stock Food" to my hogs, cattle and sheep. After giving it a fair trial I am pleased to be able to state that it purifies the blood, gives a healthy tone to the system, and is especially effective when fed to young stock. I have no hesitation in heartily recommending it to anyone wishing to increase the quality and productiveness of their stock. Yours truly,

(Sgd.) J. M. GARHOUSE, Rosedale Stock Farm,

Breeder and Importer of Clyde and Shire Horses, Scotch Shortboms and Leicester Sheep.

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PURE SCOTCH-TOPPED SHORTHORNS

A number of fine young bulls and heifers for sale. Herd bull Aberdonian. Such strains as Ross Duchess, Barrington's Hero, Vrie and others. Call on or write to

J. MARSHALL,

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Dentonia Park Farm,

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For Sale During the next six weeks,

young animals of both sexes

JERSEYS, GUERNSEYS

and Ayrshires

Our prices won at Toronto and Ottawa this year give you a fair idea of the quality of the stock. Our prices are consistent with such quality. Correspondence solicited. Photographs and full particulars will be sent on request.

LEICESTERS ONLY—Young Stock for sale from our imported Stock Farms on pure-bred ewes of best strains. Write telling what you want and get our prices. C. & E. WOOD, Freeman P.O., Burlington Jct. Station, C.P.R. and G.T.R.

Langdon SHROPSHIRE

My Breeding Flock consists of Imported Stock Only : : :

We have this year imported more Ewes from leading English breeders.

Now for sale : 8 Ram Lambs by Mangel prize winners out of Imported Ewes.

—Apply—

E. LANGDON WILKS

Blair, - - - Ontario

WEXTON, ONT., July 10th, 1903.

rather lengthy, but a cursory glance at a few will prove of interest. Fairview Strathallan is a splendid young roan cow, square and well-bred, of great depth and symmetry. Her quality is without exception, and she has at her foot a bull calf nearly six months' old, a sturdy, vigorous fellow, by Republican, that promises to attract notice some day. Adela is a right good one, now looking her best, and just in her prime. She is by Reformer, and her dam was Amy, by the Earl of March. She was bred to Prince Gloster, a Toronto winner, and her calf, a bull, now 6 mos. old, is a calf of the kind to interest any breeder. Low down and strong, showing quality in his head and shoulders, back and quarters and all over, he seems the right kind to bequeath his own inheritance of beef and vigor. Missie Dunmore is a good big roomy cow, by Primrose Duke, and her dam was Lady Clonmore. Her heifer calf, by Monitor, is a square, straight, and even animal with its mother's size and even more quality, a fine thrifty calf, and around it are to be seen a whole lot more, as good, or almost as good, from equally well-bred dams, and we will not take much space and time to mention. Suffice it to say, that the farms are few where high-grade live stock receive the same skillful attention and care, and that while all cows are in advance, and are advancing, the Rosedale Stock Farm is losing nothing of its old time prestige in the live stock world.

T. Berry, of Hensall, Ont., is right in line with the rest of the horsemen of Ontario, in having in his stables a few good ones to show the visitor, both in the Shires and the Clydes. Amply upholding the prestige of the breed he represents, the good horse Prior's Hero will easily outclass the others, weighing in ordinary condition easily 2,100 lbs. He is a bay in color, with a heavy body, a good top very well coupled, and long deep, very slick powerful stifles and good limbs. Another good Shire stallion is Natty Royal, a get of Harbinger Harold, and his dam was Thornby Jet, by Thornby Tom. A horse of good conformation and nice clean style, he has every appearance of being a successful sire of colts with substance and quality. Florizel is a horse not to be placed second to any of them, a fine five-year-old by Prince of Carrighan, and a grandson of the Prince of Wales. He is of the smoothest conformation all over and will weigh about an even ton of smooth, even, well-finished horse-flesh, as one often sees, deep, thick and strong, and set on the best of legs and feet, he is a jet black with a fine glossy hide, and white markings. Lord Wolseley is another black fellow by Castle-rough, an aged stallion of great scale and good shape. Two other good ones are Dunraggi XX and a good one is good horse Ornament, who was imported some time ago by Wm. Colquhoun, Mitchell, and sold, to cross the line, and Royal Cumbrin, 11,164, a good smooth strong fellow, and a pedigree showing him to be perhaps the best bred fellow in the lot. Waverly, by Gallant Prince, dam Jean, by Londonderry, is a horse with lots of bone and action, good conformation and appearance for his age.

The World Man on the Wing had an opportunity recently of visiting the plant recently erected by the Ontario Live Stock Company, at Unionville. Ont. A short walk from Unionville station, on the G.T.R., some thirty miles out of Toronto, the plant, for such would seem to be the appropriate title of this wholesale pig factory, is situated. A rather imposing-looking building, with low walls of concrete foundation on which the frame superstructure is erected, 450 feet in length, and 52 feet wide, with an elevator, steam engine and boiler for storing, grinding and cooking the grain

Brookside Ayrshires

Cows from this herd won 1st, 2nd and 3rd in Dairy Test at Ontario Winter Fair, Dec. 1902, and 1st and Sweepstakes over all breeds, Dec. 1903. Royal Star of St. Anne's—700—at head of the herd. Will have a few calves to spare after January 1st.

H. & J. McKEE,

"Brookside," Norwich, Oxford Co., Ont.

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BURLINGTON CANNING CO., Ltd. will pay the market prices for any quantity of dressed Turkeys, Ducks and Chickens. Write us for quotations or consign to

Burlington Canning Co., Limited,
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RIVERSIDE HOLSTEINS

Twelve month bull calf, dam winner at Pan-American Model Dairy 4 mos. ago. Other young bulls and heifers from advanced registry

MATT, RICHARDSON & SON,

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AYRSHIRES

A number of choice pure-bred bulls for sale, or will exchange on suitable terms for pure-bred or grade heifers of dairy strain.

C. S. AYLWIN, - Freeman P.O., Ont.

..Woodroffe Dairy Stock Farm..

Six grand young bulls still on hand will be sold cheap, if taken before winter.

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Regularly Yorkshires ready for shipment.

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CANADIAN AND IMPORTED SHORTHORN

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Ben Leonard (Imp.), a grand individual of the famous Kildare Herd, Canada, has the best of few choice young bulls, one imported in dam, also a number of imported and home bred cows and heifers, all sales, for sale. Write or visit the Farm, one half mile from Moffat Sta., C.P.R. GEO. AMOS, Prop., Moffat Sta. and P.O., Ont.

Market Review and Forecast

The Trend of Markets—Supply and Demand—The Outlook

Toronto, Jan. 12, 1904.

Trade continues good and the outlook for spring business is bright. The reports of the various businesses who have taken stock during the holiday season, show a satisfactory business for the year. There is a considerable flurry in the stock market owing to war rumors in the East. At time of writing it is reported that Russia has backed down and acceded to Japan's demands. If this be true, war will be averted for the time being and its effect upon the stock market lessened. Money continues in demand, and discounts rule steady.

WHEAT

There has been considerable flurry in wheat circles the past week or two, owing to war rumors. Chicago wheat jumped up 4½ cents a bushel, and here 3 cents in a few days. Things have eased off now, and if the report today that peace is assured by Russia consenting to Japan's demand be correct, we need not look for any further excitement in the wheat market because of the war scare. The *Cincinnati Price Current* of last week summarizes the wheat market situation as follows:

"Wheat markets are influenced almost entirely by war rumors, especially the market for futures. May wheat having advanced 4c. and reached the highest price of the season during the week. Minneapolis cash wheat was equally strong, having advanced 4½c. during the week. A better demand for flour has lately been reported from that city. Winter cash wheat markets generally advanced 1@2½c. At Chicago the market followed closely the movement of English consols, as reflecting the probabilities of war, though there was said to be heavy buying on the advances and buying on the declines by the one large interest that dominates the Chicago market.

Reports of winter wheat conditions in the United States are favorable, and there is nothing to assure any marked advance in price, should war not take place. Locally the markets are easier. Holders of red and white are asking 80c. Goods is steady at 73c., and spring fine at 75c.

COARSE GRAINS

The oat market rules about the same. The demand for export and at Eastern ports is light. In Ontario, oats are being held and receipts are light. The market here rules steady at quotations. The barley market is steady and prices are tending upward. The speculative corn market has been active and prices have been advanced, though it has not affected the local market very materially. The recent dry cold weather has enabled the Western corn grower to husk and crib his corn and more marketing may be looked for. There seems to be little activity on the part of Western feeders to buy corn.

FEEDS

The demand for feeds keeps good and the tone of the market is firm at quotations. Prices here rule steady.

POULTRY AND EGGS

There is a good demand here for young chickens which are quoted at 10 to 11c. in a jobbing way. The demand for other lines has fallen off. The goose season is about over and turkeys and ducks are quiet at lower quotations. At Montreal conditions are about the same, though real choice fresh birds sell

at good prices, but half-frozen stuff is not wanted.

The egg market keeps strong. The export market is quoted firmer and higher. Prices here in a jobbing way are as follows: New laid, 45c.; selects, 28 to 29c.; cold storage, 25 to 26c.; and limed at 24 to 25c. a dozen. On Toronto Farmers' market new laid bring 35 to 45c. a dozen.

POTATOES AND BEANS

During the very cold weather there has been little shipping of potatoes, consequently carlot offerings at central points have been light. Prices have not advanced any and carload lots rule at 70 to 75c. per bag on track, Toronto. Montreal quotations are about the same; 80 to 95c. a bag are the quotations on Toronto Farmers' market.

The bean market rules steady and prices are unchanged at quotations. The quantity offering at Montreal has been large of late.

HAY AND STRAW

There is a steady feeling in hay and quotations are a little higher than when we last wrote, or \$3.50 per ton for carlots on track, Toronto. At Montreal prices rule at \$3 to \$10 for No. 2 and No. 1 quality, and \$7 to \$7.50 for clover mixed.

Carloads of straw are quoted here at \$5 to \$5.25 per ton.

DAIRY PRODUCTS

The cheese market has taken on a more buoyant character and prices are on the upward grade. This, however, will not help the producer much as the 1903 output is nearly all out of factory-men's hands. At Liverpool, stocks at the end of the year were 120,000 boxes as against 64,025 a year ago. Those at London were 160,000 boxes, an increase over a year ago. On this side there is not so many cheese on hand as a year ago at this time. November's are held at Montreal at 94c to 10c., and October's at from 10½ to 10½c. It is thought that the market will advance sharply when the demand from the other side does come.

The butter situation in England is favorable so far as stocks on hand were concerned at the end of the year. Besides the very cold weather here and in England will have the effect of curtailing the make, and thus lessening receipts. Holders are hopeful, therefore, that these favorable conditions may bring about higher values. But there is considerable stuff held over and at the moment it does not look as if this expected advance would come. The usual complement of winter butter is being made, which largely supplies the local demand for creamery butter.

HORSES

There is more activity in the horse market. A very good sale was held at Grand's last week and the sales this week have been well attended. The demand for first-class animals of nearly all classes is good, and especially for good heavy draft horses. There was some excitement in horse circles the other day when it was announced that Japan was sending a special Commissioner to Canada to buy horses for war purposes. It was stated that he has orders to buy from 2,000 to 3,000 horses, and that Calgary would be his headquarters. But reports to-day are more hopeful of peace and probably this order will be cancelled.

LIVE STOCK

The live stock trade is more active, and all offerings are readily taken at quotation. The quality of fat cattle offered of late has been only moderately good. Few exporters are coming forward. The best exporters are worth \$4.50 to \$4.75, and medium about \$4.25 to \$4.50 per cwt. Really prime quality would bring more money. Trade has been especially good for butchers, especially for the better grades, all of which are quickly bought up. Choice picked lots, 1,100 to 1,175 lbs. each, equal in quality to the best exporters, are worth \$4.20 to \$4.70, good cwt. at \$4.00 to \$4.25, fair to worth \$3.50 to \$3.85, and inferior to common \$2.25 to \$3.30 per cwt. Feeding steers of good quality, 1,050 to 1,150 lbs. each, are worth \$3.50 to \$3.80, and feeding bulls \$2.50 to \$3.00 per cwt. Yearling stockers of good quality, 400 to 700 lbs. each, are worth \$2.75 to \$3.00, and poorer quality, of same weight, \$2.00 to \$2.50 per cwt.

The Canadian Produce Markets at a Glance

The highest quotations of prevailing prices for standard grades of farm produce in the leading markets on the dates named. Poorer stuff lower.

Date	Toronto	Montreal	St. John	Halifax	Winnipeg
	12	11	9	9	9
Wheat, per bushel.....	\$ 80	\$ 82	\$	\$	\$ 80
Oats, per bushel.....	31	30	43	44	30
Barley, per bushel.....	24½	24	54	54	40
Peas, per bushel.....	63	62	73	73	...
Corn, per bushel.....	44	52	55	57	...
Flour, per barrel.....	3 05	3 00	5 25	5 30	4 70
Brant, per ton.....	16 00	17 50	20 00	20 00	16 00
Shorts, per ton.....	19 00	20 00	22 50	22 50	18 00
Potatoes, per bag.....	75	75	1 25	1 20	90
Beans, per bushel.....	1 50	1 60	2 00	2 00	...
Hay, per ton.....	8 50	10 00	12 00	13 00	10 00
Straw, per ton.....	5 25	6 00	6 50	8 00	...
Eggs, per dozen.....	35	27	30	30	23
Chickens, per pound, d.w.....	11	11	per 105	65	per 112
Ducks, per pound, d.w.....	10	13	per 105	65	10
Turkeys, per pound, d.w.....	13½	15½	15	13	15
Geese, per pound, d.w.....	9	9½	12	12	10
Apples, per barrel.....	2 50	3 75	3 00	3 00	3 75
Cheese, per pound.....	11½	11	10	12	13½
Butter, creamery, per pound.....	22	20	24	23	24
Butter, dairy, per pound.....	17	17	19	20	21
Cattle, per cwt.....	5 00	4 50	5 00	5 00	3 75
Sheep, per cwt.....	3 75	3 50	3 75	3 60	4 00
Hogs, per cwt.....	5 25	5 45	5 50	5 50	5 00
Veal Calves, per cwt.....	5 50	5 00	4 75	4 75	...

Milch cows and springers bring from \$35.00 to \$55.00 each. Calves sell at \$2.00 to \$10.00 each or \$4.00 to \$5.50 per cwt.

The run of sheep and lambs has slackened off a little and prices are firm at quotations. Sheep sell at \$3.25 to \$3.75 per cwt. for ewes and \$2.50 to \$3.00 for bucks. Prices for spring lambs range from \$4.40 to \$4.00 per cwt. and \$4.75 to \$5.00 per cwt. for choice ewes and wethers for export.

The run of hogs continues good, prices rule at \$5.25 for select bacon hogs, 160 to 200 lbs. each, \$5.00 per cwt. for lights and fats. Reports still come to hand of higher prices being paid east of here for bacon hogs. Peterboro packers paid last week \$5.40 for select bacon hogs at that point, and \$5.25 has been the ruling figure, which means considerably more, when landed at the packing house here.

TORONTO JUNCTION

Considerable business continues to be done at the new Union Stock Yards, at Toronto Junction. The receipts are mostly cattle, and quotations rule about the same as at the Toronto City Market.

The Art of Feeding

It is not what an animal eats, but what he thoroughly digests and assimilates that goes to make the profit in feeding. Undigested food is the rock that feeders most often come to grief on, and undigested food is the origin of almost all stock ailments. The successful feeder is the feeder who can most rapidly manufacture animal products from the raw material at the least cost, and one case of indigestion often spoils the record of a whole herd. By many of the most successful feeders Herbageum has come to be recognized as the greatest and most economical means of ensuring perfect digestion and assimilation of foods. It enables feeders to utilize coarser and cheaper foods without retarding the growth of the fattening process.

We give here a report of a test made by a practical feeder. The test was made on stall-fed cattle, but the argument applies to all classes of stock. The Report is as follows:—"Last winter I fed 13 steers. I had previously used Herbageum, and was satisfied that there was a good profit in its regular use. However, in order that there should be no possible doubt about the matter, I fed 17 of the steers Herbageum in addition to their regular food, and to the one remaining steer, which was a good one, I gave exactly the same food without the addition of Herbageum. The 17 steers gained rapidly, and at the end of two months' feeding were great in advance of the one steer that had been getting no Herbageum. I then began giving him Herbageum also, and in a short time his improvement became as rapid as the others.

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We can teach you BY MAIL in a short course of lessons, which will cost very little, how to install and manage your own cold storage plant.

You would be surprised how little such a plant would cost you. Why not have ready for next summer and be able to hold your produce for the highest prices without loss.

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Livited, Coronto, Canada

WALTER JAMES BROWN, B. S. A., Principal.

"My experience shows that when stall fed cattle get Herbageum there is never any trouble from indigestion, or waste of food through lack of assimilation."

JOHN GIBBS, Fordyce.
Dec. 18th, 1902.

"HICKORY"

(Continued from page 74.)

"Cause I asked him,"
"And what did he say?"
"Not a word. He just shook his head. Then I asked if his mother was living, and he nodded. But he would not talk about her. He looked almost stern."
"You ask too many questions, Roxy."
"Perhaps I do," she answered gravely, and without more words she walked off to her music, followed by Nep. The dog was very fond of his young mistress and would follow her everywhere. More than once, Hickory had seen him bound towards her with every expression of joy, when he saw her coming.

After a little while Hickory felt equal to swinging along on the one foot, and the first afternoon that he ventured far, Roxy went with him while Nep raced up and down the road. It made him feel a little queer to lunge along by the side of the fair girl, for this was the first time he had walked with a maiden since he parted with Elsie. The new life, with its ease and idleness, had grown upon him. It was ideal to have nothing to do, to have every want supplied, and to be enveloped in a home atmosphere different from anything he had ever experienced. And now to be walking in a rough way with his crutches, and to have beside him a sylph in white and pink, thrilled him with a feeling that the possession was not his, but he was revelling in pleasures that could not continue. Still, with a free conscience he enjoyed the felicity. The actual present was sufficient.

"Isn't it delightful to be able to walk again?" she asked, as Nep bounded across the path in front of them.
"Indeed it is. I can even put my foot to the ground. See!" He tried to imagine that in this was all his happiness.
"And bear your weight upon it?"
"I would not like to try that much just yet."

He did not know how soon he would have to try.
"Go away, Nep," and the dog careered along the road. "But when you can walk without crutches you will have to go back to the ship, as you did last winter?"

"No doubt. The captain says to do there are more repairs than ever to do this year—and it will take us until spring to finish them."

"How far is the Condor's dock from here?" Roxy asked.

"Forty miles at least."
"That means when you once go you'll be so busy that you'll never come back again?"

"Perhaps I'll break my other leg and have to come," he answered, cheerily.

"Not a bad idea. You know I've lots of books you haven't read yet, and your education won't be completed until you've finished them," she cried with mock seriousness.

"I shall really have to think of it," he responded. "But would it not be better to give Mr. Parker a chance? You know he's just dying to break his leg."
"Ah! but he is not apt

"To drop in a hole."
"And snap like a pole," said Roxy, shaking her head. "His business is to do nothing but shoot; and his only danger is from bullets. They always kill, you know."

"We can never choose how we shall be hit, or who shall hit us," said Hickory, in a reflective tone.
"I know it"; and Roxy's face suddenly grew grave. "My brother Ned's case was an instance."

"I did not know that you ever had a brother."

"Yes, I had. He was the dearest fellow that ever lived; but he was shot by a hidden Southerner, while commanding a reconnoitering party during the war. They tried to, but they could never find out who did it."

"And you are the only one left, Miss Roxy?"

"Yes; I never had a sister."
"And your mother," said Hickory.
"She died when I was four years old; and after Ned was killed, there was only father, aunt and myself left. Everybody always said I should have been a boy. I don't think so, do you?"

"Not in the least," said Hickory.
"That's what I say; so does Mr. Parker. But I tell you, I rather be a Tom-boy all my life than be as silly as some girls are. They think that whenever a young lady walks with a young man either one or both of them are in love; and they talk utter nonsense about it."

"I'm glad the captain has such a sensible daughter."

"She tries to be sensible; but what with 'grip', foolishness, and my father's prudery—it's pretty hard for her sometimes."
"And she carolled off a merry laugh, that made her look more winsome than ever."

"You seem to stand it pretty well," said Hickory and looking into her face, he was struck more than ever by her beauty, forgetting for the moment even Elsie.

"Just look at Nep," exclaimed Roxy. "He's crazy. Running up and down without any reason. He'll tire himself completely out. Here, Nep, Nep! Lie down, sir!"

With his tongue hanging out, the huge dog slowed down to a trot and came towards her. Then she patted him and he lay down, but it was only for a minute. Hot and restless, he was up and off again.

"Is Old Hickory tired?" said Roxy, turning to her companion in a motherly way. "He's had a long walk for a lame man."

"Yes, I think he is," was the answer. "I did not suppose we were so far away from the house."

"Are you sure you can walk back?" she asked in some concern.

"Oh, easy!"
"But it was all he could do, and by the time he had reached the veranda he was tired out."

"There's Nep again," exclaimed Roxy, "racing down the line fence on the steady run."

"The dog is ill," said Hickory. "He's too excited. Chin had better put him in the barn for the night. This hot October weather is too much for him."

"I will tell Chin at once," said Roxy. "But it was late before the Chinaman had succeeded in enticing the dog into a box stall in the barn. Then he smothered him with food and water, and left him for the night.

(To be continued.)

One of the Best

"I might say that we enjoy reading THE FARMING WORLD. Your paper is one of the best that comes to our home, as it gives general information regarding farming, stock, etc."

"May your paper continue to prosper, is the wish of yours."

WM. A. WEAVER, MAPES, N. S.

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Dr. McCaughran's Tobacco Remedy removes all dependence on the weed in a few days. A vegetable medicine, etc. and only requires touching the tongue with it occasionally.

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YOU are to be the one to say whether it is or it isn't; whether you will or you won't; whether you are right or wrong. We leave it to you entirely, for you to decide. The only evidence we want to submit is a dollar package of **VITAE-ORE**, which package we want you to use, and at our risk. All we ask is a fair verdict. We say, if you are sick, that **VITAE-ORE** will cure you! We say that one package will prove to you that it is the remedy for your case and condition. If it does not, you to be the judge, we want nothing from you.

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I had been troubled almost all my life with a Stomach Disorder, and tried hundreds of remedies, but every one I heard of for that trouble, with no permanent relief. About three years ago



it developed so severely that I was compelled to give up work and almost despaired of living much longer; in truth, I did not think in my condition life was worth the living. Seeing Vitae-Ore advertised in my paper on thirty days' trial I procured a package, and at the end of the month's treatment I had such relief that I bought two more packages. When I had finished the second package I had begun to gain in flesh, and when I had taken the third package I was strong and healthy, weighing more than I ever did before, and I am now enjoying a health and comfort that words cannot express. I think Vitae-Ore is the best Stomach remedy that can be had, and to all afflicted with Stomach Troubles it cannot be too highly recommended.

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Suffered for Five Years from General Debility; Two Years from Indigestion and Salt Rheum.

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I wish to tell what Vitae-Ore has done for me, in the hope that it may help others to be cured as I have been. I had been suffering for five years with **General Debility and Neuralgia** in my head, and two years ago I began to be troubled with **Indigestion and Salt Rheum**, the latter appearing on my hands, and could hardly eat or sleep. Although I doctored with some good doctors I received no benefit until I commenced using Vitae-Ore, and before I used all of two packages I had gained ten pounds. Three packages of Vitae-Ore have made me a new woman. **Mrs. MARY KNOUT.**

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This offer will challenge the attention and consideration, and afterward the gratitude, of every living person who desires better health, or who suffers pains, ills and diseases which have defied the medical world, and grows worse with age. We care not for your skepticism, but ask only your investigation, and at our expense, regardless of what ills you have, by sending to us for a package.

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I offer to every sufferer with Consumption, Catarrh, Bronchitis, LaGrippe, Pulmonary and Bronchial Diseases, my Free Trial Treatment. If you have any of the following symptoms it means that the germs of Consumption are in your system. Accept Dr. Slocum's generous offer and be cured as thousands of others have been.

Are your lungs weak?
Do you Cough?
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Is your throat sore and inflamed?
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Are you losing flesh?
Are you pale, thin and weak?
Do you have ringing in the ears?
Do you have hot flashes?
Is there drooping in the throat?
Is the nose dry and stuffy?
Have you a coated tongue?

Call your diseases what you will, these symptoms indicate that you have in your body the seeds of the most dangerous of maladies. In order to let all sufferers know the marvellous power of his system of treatment, Dr. Slocum has decided to give free to all as a test his free trial treatment (\$1.00) One Dollar's worth of the Slocum Series of Specific Remedies FREE.

The Slocum System of Treatment has cured thousands of cases of consumption in all stages of the disease. A treatment that accomplishes more than one remedy can ever accomplish. A system of complete medicinal and tonic-food treatment that destroys and eliminates all tuberculosis germs and poison from the system and assists nature in building up healthy lung and body tissue.

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Stops the Cough — Builds up Weak and Wasted Bodies — Drives Out Disease Germs — Stops the Tearing Down of Lung Tissue

CURED OVER A YEAR AGO — NO RELAPSE

Rimington, Aug. 12, 1903.

DR. T. A. SLOCUM.—I have used your treatment for Consumption and I feel very grateful for what it has done for me. Mine was as bad a case of consumption as could well be imagined. I had a terrible cough, night sweats, and was reduced much in weight. It is over a year since I was cured, I have had no relapse and I am in perfect health to-day. I consider it my duty to humanity to write this.

MRS. GEORGE SMITH.

Hospital "Cot" to Health

W. J. Hall, who was Crushed Beneath a Marine Boiler Weighing Sixteen Hundred Pounds in Inglis & Co.'s Machine Works, Toronto.

Regains strength and gives details of his marvellous escape from a premature grave with Dr. Slocum's Treatment — A sensational cure that has attracted the attention of leading medical men and interested His Worship, Mayor Urquhart, of Toronto, and other prominent citizens.

Mr. Hall's statement, made on 19th September, 1903:—

Dr. T. A. Slocum.—Months ago I met with an accident in Inglis & Co.'s machine shop, and was injured internally. Owing to my injuries and my run down system I fell a prey to consumption and was given up by the doctors. I was in the WESTERN HOSPITAL and physicians there informed me that I was INCURABLE, and that they COULD DO NO MORE FOR ME. In addition to this I tried many doctors and different medicines, but nothing to relieve me, or even do me good, until I commenced the use of your treatment, and the improvement since that time has been very marked.

The serious nature of my injuries, which had been the cause of consumption in my case, necessitated that I should persevere for some time in the use of Psychine. I therefore continued taking Psychine for three months, and to-day I am completely cured and I am working again.

This statement of my recovery can be verified by Mayor Urquhart and many other people who have known of my case.

WILLIAM J. HALL, 5 Dundas Street, Toronto.



MR. HALL
As he looks to-day

Accept Dr. Slocum's generous offer to-day and be cured at home among your friends and members of your own family. "The need of a change of climate or for travel has been altogether exaggerated," declares Dr. Slocum, "and the chances of a person's recovery at home is a hundredfold better than away from it, surrounded by sick strangers."

Dr. Slocum has such confidence in his treatment that he is prepared to give absolutely free **One Dollar's worth of Medicine** to every person afflicted with consumption or any of the symptoms mentioned in this announcement. Simply write, mentioning your druggist's name, your post and express office, to Dr. T. A. SLOCUM, Limited, 179 King Street West, Toronto, Canada. Mention this paper.