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FARM LANDS

Farm Gave Enormous Returns

Did you read the letter of Mr. George Wells in the Firming World of October 15th, giving the result of his eason's operation on a 2-oarce plot of irrigated land? Lot For the drill, with no rolling, and no close to pulvering the second second the second se

His figures show the enormous total of \$2,608.50-off twenty acres.

But it was irrigated land. Without irrigation such a result would have been almost impossible

Mr. Wells handled and attended the crop alone -a big consideration in point of labor.

The crop was put in on new breaking, which makes the results all the more astonishing.

Mr. Wells had 25 years' previous experience on some of the banner farms of England, where artificial fer-tilization was largely resorted to, and no expense spared to get results, and he says the results from his 20-acre Alberta plot were as good as on those heavily fertilized farms.

The productiveness of Southern Alberta irrigated land is, therefore, something wonderful.

"The land throu choat this district," says Mr. Wells, "is especially adapted for raising roots, there being no hard-pan, with a subsoil which is loose, requiring no deep plowing or subsoiling. Another point in its favor

bed. A couple of strokes of the harrow and it is ready for the drill, with no rolling, and no clods to pulverize. The soil does not bake after being irrigated. It is the only land I have ever worked that would not crust if worked while wet."

That's a pretty good reference for irrigated lands. But that's not all. Mr. Wells states his confidence in the advantages of an irrigated farm this way : "From what I have seen of irrigation thus far I shall certainly never go back to dry farming. The difference between the two methods is as the difference between

the self binder and the old scythe of my younger days." It is no wonder that so many progressive farmers are turning their thoughts to irrigation-getting water on the brain, as it were.

IRRIGATION MEANS SURE AND BOUNTIFUL CROPS EVERY YEAR and when that is said—and it is easily proved—it means everything to the farmer.

Write for our illustrated literature concerning irriga-tion, which contains a multitude of most interesting and At the same time we will send you a

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can be kept up right through the winter if you feed your hens right and keep them warm. Our book, "Making Poultry Pay," tells how to feed them. The way to keep

them warm is to roof and side your poultry houses with



It is absolutely water-proof and wind-tight. It is nonconducting and keeps a poultry house warmer in winter and cooler in summer. It will resist fire. It is easy to put on. It will last for yearscheaper in the long run than the cheapest you can buy. Be sure you "Look for the Boy."

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will convince you. Send for them and our booklet on roofing; also 4 cents in stamps for our book, "Making Poultry Pay."

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THE FARMING WORLD.

PUBLISHER'S DESK

Coming Events

International Show, Chicago-Dec.

- 2-7, 1907. Winter Fair, Guelph-Dec. 9-13, 1907. Experimental Union, Guelph-Dec.
- 9-11, 1907. Eastern Dairymen's Convention, Picton-Jan. 8-10, 1908.
- Western Dairymen's Convention, western Dairymen's Convention, Woodstock-Jan. 15-16, 1908. Eastern Outario Winter Fair and Poultry Show, Ottawa-Jan. 20-24,
- National Live Stock Convention, Ottawa-Feb. 5-7, 1908. Spring Stallion Show, Toronto-
- Feb 12-14, 1908. .

Auction Sales Polled Herefords, Mossom Boyd, Windsor-Nov. 28, 1907.

Clydesdales, Wm. Meharey, Ottawa --Dec. 3, 1907.

Farming World Stereoscopes

Owing to lack of space we have omitted our advertisement regarding the sterescopes and views which we the sterescopes and views which we are olfering for sale in connection with subactiptions to The Farming World. If you write us we shall be pleased to send your full particulars as to how you may obtain stereo-scope and choice of large variety of views at a very low price. The ad-vertisement appeared in the last isome issue.

New Walkerville Factory

The McGregor Banwell Fence Co., manufacturers of ideal woven wire fence at Walkerville, Ont., whose fac-tory was destroyed by fire on March IG last and who have since been oper-ating in a temporary factory, have almost completed the erection of their new building: Ains building is of re-inforced concrete throughout, the floors being reinforced with Ideal fencing specially made for that pur-pose. The factory will have 34,000 square feet of floor space, the ground floor being used for the storage of wire and for the manufacture of woven wire fencing and the upper story for the manufacture of gates, lawn fencing and fence supplies: 16 last and who have since been operlawn fencing and fence supplies. Every up-to-date appliance for the manufacture of these goods will be installed and on completion it will be a model factory in this line. The a model factory in this line. The company will also crete a fire-proof storage building zooxtoo feet. It is expected that the looms will be in operation November 15, and in the meantime the trade is being supplied from the surplus stock made up just before the temporary factory was taken down.

A Feat of Endurance

A recent issue of the Aberdeen A recent issue of the Aberden Evening Gazette contains a reference to the feat of endurance the fasting man, M. Victor Beaute, was at that notice reads: "Although he has now been enclosed in his glass prison at Humher's Waxwork, Goerge street, for 34 days, M. Victor Beaute is still alive and hearty, although he has subsisted the whole of this time on either soda water or plain water to the extent of about one pint daily, and a comple of cigarette per day. and a couple of cigarettes per day.



15 November, 1907

Throughout the ordeal, M. Beaute has been always cheerful and ever ready to discuss any subject, besides trans acting his own correspondence and keeping himself well in touch with the topics of the world.

"The most dangerous part of the whole performance takes place on Monday night at the Northern Hall, when M. Beaute will break his fast in the presence of any who care to attend. He has received over two cwts, of various styles of patent foods, and is rather amused at the rush of the merchants for the sake of advertisement. His first meal, however, is to take the form of a cup of ever, is to take the form of a cup of Bowril and a biscuit, Mr. James Mearns, our local swimming cham-pion, having acceded to M. Beaute's request to be present to administer the stimulant."

. Of Value to Horsemen

Do you turn your horses out for the winter ? If so, we want to call your attention to a very important matter. Horses which have been used steadily at work, either on the farm or road, have quite likely had some strains whereby lameness or enlarge-ments have been caused. Or perhaps new life is needed to be infused into their legs. Gombault's Caustic Balsam applied as per directions, just as you are turning the horse out, will be of great benefit; and this is the time when it can be used very successfully. One great advantage in using this remedy is that after it is applied it needs no care or attention, but does its work well and at a time when the horse is having a rest course it can be used with equal suc-cess while horses are in the stable, but many people in turning their horses out would use caustic Balsam if they were reminded of it, and this article is given as a reminder. 讷

St. John, N.B., Jan. 3, 1902.

St. John, N.B., Jan. 3, 1902. Dr. S. A. Tuttle: Dear Sir:-I have sold your Elixir and Powders for some years, and find the demand rapidly increasing.

E. CLINTON BROWN.

Druggist, corner Union and Sydney Streets.

Entomological Society Meeting The forty-fourth annual meeting of the Entomological Society of Ontario was held at the Ontario Agricultural College at Guelph on the 31st of Oz-toher and following day. The attendance was good, many members from long distances being present. Several outbreaks of injurious in-

sects were reported and the discus-sions which followed were of great interest to farmers and fruit-growers. Mr. Caesar reported that much damdone to cherry age had been and plum trees in the Niagara district by the fruit-tree hark beetle (Scolvtus rugulosus). Prof. Hutt called atten-tion to the spread of the ovstershell bark louse and pointed out the necessity for strong measures in order to keep this pest in check, especially in the eastern part of the Pro-

All the officers of the Society were re-elected.

4 Worth Twice the Price

Mr. Jno. E. Wagg, Goodwood, Ont. writes :- "I am very sorry that I have delayed paying for the paper as I would not do without it for twice the price."

THE FARMING WORLD.

the farm, he soon learns, if he did not know it before, that he

and more economically than he ever did before.

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picture of Dan Patch 1.55, and it will be included free of charge.



15 November, 1907.

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Market Review and Forecast ... 1085



GILSON MFG. CO., LIMITED 103 York Street, Guelph, Ont.

The Farming World

VOL. XXVI.

TORONTO, NOVEMBER 15, 1907.

No. 22

NOTE AND COMMENT.

Our English correspondent, this issue, mentions the arrival of Argentine beef in London preserved by the new process of sterilization, and throws out a hint that American exporters of chilled beef will have to look to their laurels it half of what is claimed for this new process comes true. Everything seems to be working to supply the Englishman with good beef at a reasonable price. Decent quality of English-raised beef has sold during the month at 9c. per lb., wholesale. This is about as cheap as the retail butcher in Toronto gets his supply for, and the quality is nothing extra at that. Everything considered, the consumer here should be able to get his meat supply for one-third less than the consumer in Old London. But does he ?

The Ontario Government has decided to discontinue distributing immigrants among farmers, as the Dominion Government is now doing the same kind of work. The Province will likely co-operate with the Dominion Department of Immigration in other ways and devote the funds released from distribution work to more extensive advertising in Great Britain of Ontario's advantages. Owing to the system of bonusing booking agents by the Dominion Govern-ment for farm laborers sent to Canada, the number of this class reaching the Provincial Bureau at Toronto has been gradually get-ting less and away below the requirements as indicated by the applications received. It makes little difference to the farmer where he gets his help, so long as he gets it and it is efficient.

Once more Ontario fruit-growers and shippers have presented their grievances against the railway companies to the Railway commission. Car shortages, delay in getting cars, delay in transit, and inadequate icing were the chief items. The judgment of the Commissioners was favorable, and the fruitmen are to be congratulated upon the outcome. Not so with the grain shippers. Their complaint of discrimination at Owen Sound in the matter of cars was not proven to the satisfaction of two of the Commissioners. Dr. Mills, however, is al, and presented a state in his opinion then the grainshippers.

The evidence submitted both by the fruit and grain suppers serves

cently in these columns, that the railways have not kept pace with the progress of this country in equipment and rolling stock. Not only have they not kept pace with the country's progress in this re-spect, but evidently the railways have done little to remedy matters, as the same grievances exist to-day that were complained of five years ago. Some more effec-tive means of improving matters must be devised. In this connection it may be interesting to note a recent order issued by the public service commission of New York State, which requires that where unjust discrimination has been alleged, the railroad complained of shall transmit at once to the commission a ...etailed statement of the matter, with the reasons relied on by the corporation as justification for its action. The order also requires the railways of the state to report to the commission every

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When sending in your renewal subscription, try and send one new subscription along with your own. We will accept one renewal and one new yearly subscription, both for \$1.00.

your own. We will accept one renewal and one new yearly subscription, both for \$1.00. January 1st is fast approaching and on that date the subscription price to the Farming World will be advanced to \$1.00 per year.

per year. Subscription forms will be found on pages 1043 and 1069.

case in which it has been unable to place a car for loading within four days after the time for which it was ordered. This applies to carload lots.

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FARM LABOR

The most pressing need on arms to-dav is labor. Requisitions sent in from various points for men indicate that year by year the demand for farm labor is becoming more acute. On the other hand the available supply is surprisingly small.

The ill effect that such a condition is having on farm lands in the older provinces does not stop at the inconvenience and handicap suffered by farmers. It is seen in the alarming increase of noxious weeds, which in some sections have gained such footing as to crowd

out other crops. The necessity for prompt, vigorous, intelligent action in regard to weeds is only too apparent.

The scarcity and unsatisfactory character of farm labor is largely the result of the system on which most farms are managed. The remedy lies in an intelligent change of that system. Instead of hiring labor for a few months only each year, at a high figure, farmers will have to do as they do in the old country-put up neat laborers' cottages and engage men by the year. This will necessitate in many cases a change in the system of farming. The farmer will have to so arrange his system as to have work to do, not for a few months only each year, but every day of every month. He must milk more cows and feed more stock, which will necessitate his growing more corn and roots.

That it will repay him many fold to do this, no one conversant with agriculture will question. It will not only solve the labor problem but the net returns per acre will be greatly enhanced. Owing to increased cultivation, fertility will be improved and weeds kept unier control. By offering suitable encouragement to old countrymen, the farm labor problem could be easily solved. Many such settle in Ontario and remain for a year or two, then alter seceiving a training in farm work they take the excursions to the West.

The best way to keep out the yellow man is to bring in white men. In Great Britain there are thousands of men of our own kindred ready to come here if proper efforts are made to bring them good workers but too poor to stand the expense of moving their families to Canada. They make excellent citizens.

One of the causes of the labor difficulty is the public school, which has not tended, as it should, to train either good laborers or progressive emplovers, but has tended in a marked degree to overcrowd the professions and deplete the ranks of farmers and laborers. If some of thoses in high places had their way the country would soom be filled with a pauper class of ignorant foreigners, content to toll for a pittance, like the Asiaties who have lately poured into B. C. The problem in Canada is not to

The problem in Canada is not to bring inferior races here to toil for us, but how to fit our own people for the occumations the country affords. We do not mean that the door should be closed to all immigrants. Thrifty immigrants, of good character and physione, should be welcomed among us. But there is a great difference between

welcoming worthy immigrants who come here of their own free will, and going after them in order to secure a supply of cheap and servile labor.

The nations which figure largest to-day in industrial competition are not those with abundance of cheap labor, but those having the best trained, best directed and most highly-paid agricultural and mechanical skill.

4

THE SERVANT GIRL

To the Editor Farming World :

The writer noticed lately in The Farmer's Advocate an editorial on the "servant girl problem," in which the premises seem so incorrect and the general teaching so improper that I crave sufficient space in your growing and aggressive journal to make answer. The writer argues :- "That because it is well nigh impossible to obtain good Canadian servant girls, the situation is a most fortunate one, and that we are making rapid strides under such circumstances towards etc." God save us Democracy, from such Democracy as The Advocate editorial outlines. The writer is evidently without experience or he would know that it is absolutely impossible to arrange every home so as to eliminate the need of servants.

We cannot all be masters or mistresses, and therefore many apply for work. When we enter into em-ployment we become servants, but we do not by that act demean ourselves. It is possible to achieve as great edit as a servant as a mistree But yet the position is dif-ferent, and we must be willing to admit it, just as the position of scholar is different from that of a teacher. The one commands, the other obeys. Does the Advocate writer want the scholars to formulate rules for the government of the school. This would be democratic, but not best for the school. What about the army? It is the glory of the true soldier to obey. So long as he is in the ranks he honors and obeys his commander always, but the soldier does not dine with the commander. He cheerfully takes his proper place. Neither in a well regulated home will the true servant ever expect to spend her time playing the piano while her mistress scrubs the floor. She is engaged for a different purpose, and she does not disgrace herself by taking her proper place. The mistress commands, while she obevs. It is just as honorable to make a good record as a servant as that of mistress. There are many very poor servants, and The Advocate Editor is not likely to improve them by his method of dealing with the question. So there are poor specimens of those occupying the position of mistress. But all this does not alter the lact that so long as the world stands there will be need of servants ; those willing to do the work and obey others for the pay they receive. They may be better every

way in character or even in ability, but they best serve and honor themselves by cheerfully doing their duty and cheerfully obeying those who employ them. They are not slaves -they make half the bargain, but they are engaged to render efficient service, and they should be taught to be willing to do so. If the mistress looks down upon them when they do their duty, then she is no lady and may be left to take care of herself.

There are hundreds of noble women to-day who find their condition almost unbearable for the lack of o e to take the place of servant. Has The Advocate writer no mercy on such ? Does he not see that by his teaching he would prevent the farmers who are his main support from securing for their homes the help which is an absolute necessity? Few farmers who have 150 acres or more are so situated that they do not need servant girls, and many whose farms are smaller need them also. If The Advocate is seeking to proclaim socialism to us the sooner we withdraw our patronage the better. Since the world began to be inhabited there has always been need of servants. The noblest and best man who ever trod the earth was himself a servant. It is an honor to serve others well.

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Where have the servant girls gone? They are more than ever before, congregationg in towns and citics, not in their proper place-the home-but working in departmental stores, telephone offices, at the typewriter desk, etc. Does the Advocate think this employment more elevating or noble than service in the ordinary farm home? Does he suppose the morality of the average girl by going to labor during the day and walking the streets by night or attending cheap theatres, is increased or retained. It may be, but experience proves that it does not tend towards that which is best in the girl's life in any particular, neither bodily, mentally, morally, or in any other sense. I should be sorry to see a daughter or sister undertake any of these duties. There is no better place than some respectable home where, though the girl is a servant, she may be respected as such, and where it is possible to win approval and honor by the performance of the duties imposed upon her.

It may be that in these days when families spring up in a night from comparative poverty to affluence, there are some who manifest pride and are overbearing and cruel with those who seek to serve them. Let the Advocate berate these and give them no mercy. Few will attempt their defence. But pray do not forget the needs of the country housekeeper and do not advise the young girls to flee housekeeping and home making for the shop or the desk. It leads to restlessness and immorality, and will not increase the moral tone of our fair country.

> A FARMER WHO NEEDS A SERVANT

THE FARMING WORLD Devoted to Canadian Country Life

Published on the

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Eastern Agency of The Nor' West Farmer

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All who wish to compete for these prizes may count in their totals the names sent from now until the end of 1908.

When sending subscriptions, state that you wish to enter this competition.

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THE FARMING WORLD 605-508 TEMPLE BUILDING, TORONTO

Echoes from the West

FROSTED OATS

A peculiar situation arose out of the frosting of the oats in the West this season. In an ordinary season when oats are cheap it is very rare for No. 3 oats to be bought for milling purposes, but this year, owing to the extremely high prices that prevailed early in the season, and the general scarcity of the oat crop in Ortario, a number of the millers of that province were preparing to mill number three and gave orders for large quantities to be bought for them.

The act requires that "No. 3 oats shall be sound but not sufficiently clean or free from other grains to be graded No. 2, and shall weigh not less than 34 pounds to the bushel. Any oats not good enough to be graded No. 2 shall be graded Number 3 at the discretion of the inspector." Since this grade was established, there has rarely been any frozen oats, but this season a very large percentage of the oat crop is more or less frosted. Some of these oats are very lightly touched, they have filled well, are clean and bright and often weigh 42 pounds to the bushel. The oats were really so good that Inspector Horn, acting on the power he believed to be vested in him by the last clause, referring to number three grade, put these slightly frosted oats in No. 3. When the Standard Board met, Mr. Watts, secretary of the Dominion Millers Association, protested, and insisted that the last clause did not over-ride the first, which required that the oats be sound, and frozen oats were not sound, which of course was readily admitted. It was then proposed to make a commercial grade, but on going over the powers of the Board it was found that "the Standards Board shall not be called together to fix a commercial grade for oats." It was held by many members of the Board, that though they might not be called together to fix a commercial grade for oats, there was no reason why they might not fix that grade when they had been called together for other purposes. It was finally decided to appoint a committee to inquire into the Board's power in this regard, Folthe lowing this meeting, Mr. Watts had Inspector Horn served with an Attornev's letter threatening proceedings if he continued to put frozen oats in No. 3 grade, and Mr. Horn, acting on this letter, has since that time put all oats no matter how lightly frosted, in the rejected class. The effect has been to ad-vance the price of No. 3 and reduce rejected grades, which is a hardship to the farmer, as these slightly frosted oats, though utterly useless for milling and for seed, are just as good as any other for feed. It is felt that if the Standard Board has not the power to make a commercial grade for oats, they should be furnished with that power as speedily as possible.

As a matter of fact, slightly frosted outs are all right for milling if it were not that the frosting turns the germ black, and this appears like a tiny black thread in the finished product, giving it a most unsightly appearance and rendering it unsaleable. Anyone who can devise a method of removing this black thread and thereby rendering these oats fit for milling, would confer a lasting favor on millers and farmers alike this season.

The financial stringency that has sprung up, owing to moretary con-ditions on the American side is occasioning great anxiety and not a little loss to farmers and grain dealers. The banks have adopted, what to every one else seems a mistaken policy, of insisting that wheat shall be paid for before it leaves Fort William and Port Arthur. As lines of credit were all reduced this year, and as wheat has been fully 30 per cent. higher to buy than it was last year, this policy has resulted in a practical tie up, for elevator, men and exporters have not the means to finance shipments to the seaboard, with the result that in the past ten days space has only been chartered, at Winnipeg, for 60,000 bushels out of Fort William, when last year during the same period thirty vessels were chartered with varying capacities from 30,000 to 350,000 bushels. Stocks are piling up at the lake front at the rate of a million bushels a week, and recent inspections show a very decided falling off in grade, in fact wheat now going forward is half of wheat now going forward is nan or it below 3 northern. These grades cannot stand in an all rail freight, even if there was a possibility of the railway companies getting it out that way, which there is not, and because of its low grade British buyers will not accept it for delivery after April for fear of depreciation in transit.

Export demand for both low and high grades continues very good, and there is a higher percentage of profit than there has been for years, but owing to the financial stringency it is impossible for exporters to take up these bids.

Up to Nov. 1st, about 15,000,000bushels of the present wheat crop had been marketed, and 10,895,810bushels had passed inspection. Up to the same date last year 27,950,000bushels had been marketed and 17,190,250 bushels had passed inspection at Winnipeg. On Nov. 1st the total Canadian visible was 7,328,823 bushels, and of this amount 4,474,317 bushels was in store at the head of the lakes.

Forward movement of cattle continues very heavy. For the week ending Nov. 2nd, 5,546 head were received at the Winnipeg stock yards, and of these 3,476 were exported and -61 butchers' cattle sent east. Prices ranged all the way from \$1,50 to \$2,79, though only 35 steers sold at the latter figure.

the bulk of sales being made at \$2.75 to \$3.25. Receipts of hogs for the same period were 1.734, the bulk of which sold at \$6.50, though a bunch of 252 made \$6.75.

Dealers complain that receipts of butter are abnormally small, and already the price of creamery bricks has risen ⁵to 35c. wholesale, and makers declare that butter will retail at 45c. before Christmas.

CONFIDENCE IN WESTERN CANADA

It is gratifying to know that the lack of confidence in Western Canadian lands and land values expressed by some, is not shared by all. Mr. William Pearson, a reliable authority on conditions in Western Canda, recently made a speech at Winnipeg, which contained a great deal of careful thought and deep insight into conditions in the Western Country, dealing particularly with the necessity of keeping in mind the fundamental facts underlying western Canadian development. "The case for the West'', so to speak, was so clearly and interestingly put by Mr. Pearson that it will be of interest to every one familiar with Western Canada.

Speaking of the general situation, Mr. Pearson asked his hearers to look at things in broad perspectives. "Let us take no short-sighted view," he urged, "in formine our judgments of present conditions. Let us keep in mind fundamental facts, and not allow our minds to be influenced by the immediate phases of the real estate situation. It is only by so doing that we can properly realize the absolute sccurity of Western Canadian real estate, and this is my only excuse for reminding you at the present time of these conditions.

"To begin with, there is no doubt that the rapid increase in the population of the civilized world has a direct bearing on land values in Western Canada, Opportunities do not increase in the same proportion as does population in the older countries of Europe. Statisticians tell us that the population of the United States will double in thirty years. The republic is approaching the conditions of land famine that have prevailed in Europe for centuries. Throughout the civilized world, Canada is known as the country that can give land for the landless and opportunity to all. Just as the Americans of the fifties and sixties went West to fill up the regions between the Mississippi and the Rockies, just so will the sons of these men fill up the prairie regions of Canada. They will not only be attracted here by our soil fertility-they will be pushed here by necessity as well as by inclination, for the time is rapidly coming when there will be no other place for them to go.

"We have seen in less than twenty years immigration to Canada grow from less than 20,000 a year to over a quarter of a million annually. Present indications are that even this enormous total is going to be surpassed. This is a fact that will have a tremendous influence on both city and country land values.

"The English inrush is certainly going to increase. British immigration hast year alone was seven or eight times greater than the total immigration of ten years ago, and every indication points to the fact that the movement Canadawards is destined to grow in still greater proportion.

"Now that British labor is coming to Western Canada, British capital will follow. This is as certain as that day follows night. Already our banks are securing much of the capital needed to develop the commercial interest of Canada from Great Britain. An improved transcontinental railway service is making the Dominion a highway to the Orient, and every traveller who goes from Montreal to Vancouver learns somewhat of the actual conditions as they prevail here, and becomes profoundly impressed with our vast and varied natural resources, and with the opportunities the Dominion offers for the farmer, the manufacturer, business man and investor. The effect of this wider knowledge will be that this keen British sympathy must inevitably be reflected, not only in increased British emigration to Canada, but in increased British in-vestment. Here, then, are conditions that we should at all times bear in mind-that Canada is almost the only country having land for all, and that favoring conditions have turned the eyes of British settlement and British capital to the Dominion. It is true that there has during the past year been a check to the American movement. Under the circumstances, the wonder is that the check has been so small. Powerful American interests did not desire the continuance of American emigration. These interests set about combating the movement with energy and ingenuity. They were favored by the most unusual conditions that have prevailed in Canada during the past seven or cight months. The winter was unprece-dentedly severe. The railways could not cope with the task of transportation. There was a fuel famine which created much anxiety and some suffering, and which bote with particular hardness on the new settlers, who were naturally the least prepared to meet it. I suppose there were at least 200,060 Americans in Western Canada. These people would all write home telling of their sufferings, and the influence of so many personal letters must have been tremendous. The resourceful American press exaggerated and magnified the admitted distress. American railroad interests sought to divert the American movement to Texas and other south-western states. They gave no concessions in rates to Americans coming north, but carried settlers to Texas for almost nothing. On top of these condi-tions came a remarkably late

spring, and the most backward harvest in the history of settlement in Western Canada. In spite of all this, the conditions at the present time are such that the very obstacles and hindrances placed in our way from natural and other causes, can be utilized so as to make for a still larger movement next spring. If, after the campaign that has been waged against Western Canada during the past months, we can demonstrate that we have had a good harvest of wheat and other grains-if it can be shown that the financial outturns of the crop, which, after all, is the supreme test of a farming country's prosperity, are fully equal to those of last year-if we can, so to speak, lay the goods upon the counter and invite the world to inspect them, both as to quantity and quality-then the American movement, arrested for a time, will grow to bigger bulk than ever, and we shall find that no possible influence can keep the American settlers away from a country which

makes good in spite of unusual

conditions. "Another fact I think we should bear in mind in reference to the general situation, is that the area of land under cultivation in Western Canada is now so large that any crop failures henceforth must be only partial and local in their character. The day when the district around Portage la Prairie, Brandon and Virden represented the wheat area of Western Canada under tillage has gone forever. Our possible wheat area averages over 200 miles from north to south, stretching in a huge triangle from Winnipeg to Edmonton and the international boundary. Every year sees an increase of thousands of acres under crop. Would a resident of New York be panicstriken, because it was raining in that city. for fear that the Illinois wheat harvest was ruined? Would a man in Washington in a spell of dry weather be consumed with anxiety lest the St. Louis corn crop be ruined by drought ? Let us get a proper idea of the magnitude of the territory west of Winnipeg. Let us learn that though any particular locality may not have as bountiful a crop as might be desired, that the day of total crop failure in Western Canada has passed away forever. This is a fact that has an important bearing upon the real estate, the financial and the commercial situation.

"These facts are full of hope. I cannot understand the pessimism which has appeared to exist among some people within the past few months. At times I have failed to catch the true spirit and to hear the true note of western progress in the voice of some people this past summer. I have heard gloomy forebodings, and blue-ruin prophesies, but, when I went into the country I found a totally different spirit. There, the note of hopefulness, of courage and of confidence rang true. The farmers were not alarmed nor did they fear for the luture of the country."

BRITISH COLUMBIA NOTES

The recent riots at Vancouver are apparently having some good re-sults. The authorities have been brought to realize how badly Britonly to supply a deficient labor market, but to settle up her lands. Mr. Kipling's advice that Britishers "pumped should be in", is being taken to heart. The Government shows signs of moving in the matter. Immigration societies in the Old Country are alive with renewed energy, and it is announced that three distinct immigration schemes are on foot to bring out labor from England-agriculturists from the rural districts, clerks, etc., from the towns, and the destitute from London. After these arrive there will be the usual sifting to get out the chaff, for with stories of such great demand going abroad, British Columbia will be looked upon as an Eldorado where wages are sky high.

While California peaches were being quoted at Vancouver the other day at \$1.25, the British Columbia article was priced at \$1.75 per basket, yet a customer returned the former and said he would have the British Columbia product or none. If the growers in that province continue the care in cultivation that has marked the fruit growing industry so far, the high class peach-es of British Columbia will be always at the top. It meant great vigilance on the part of the authorities to select good stock, and the destruction of thousands of trees has taught nurseymen and owners that only the best will be allowed to be planted.

"Tell the British Columbia farmers," said Mr. Pat Burns recently, "to raise hogs and poplity, for there are millions in them. I would guarantee to buy all that are offered. As a Canadian I do not like to see millions of dollars spent anmually to buy loor products from the United States." The same remarks would apply with equal force to poultry. Farmers in the West do not realize, or at any rate do not take advantage of the fact that they have an unlimited market at their doors. Whole train loads of poultry are shipped from the East every var.

That there is a good market for dairy and farm products is shown in the high prices of table necessities. Eggs are now 55 cents per dozen, will he at least 65 cents by Christmas, and are expected to touch the 70 cent mark of last year. Butter is 45 cents, and a good article scarce at that. Chickens undressed bring thirty cents a pound, while potatoes and vegetables are lairly high, so that producers have both a convenient market and remunerative prices.

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PAY PAY PAY If you are in arrears with your subscription please pay up.

Our English Letter

London, Oct. 22, 1907.

Our national Dairy Show 'was held the middle of the month in the Agricultural Hall, Islington. Its success increases by leaps and bounds. The exhibits ranged over a wider area than at first might be imagined for they included, in addition to cattle of various breeds such dissimilar articles as butter, cheese, honey, roots for feeding cattle, cream, skim milk, poultry and pigeons, and in addition every imaginary sort of appliance used for dairy or poultry purposes.

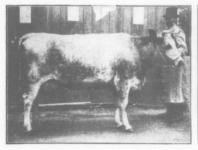
The cattle section was well filled. The principal items of interest to my readers were the milk and butter tests. In the pedigree Shorthorn cow class, the highest yield of milk was given by Melody, a cow shown from Mr. George Taylor's renowned milking herd. Her yield in 24 hours was 68.8 hs, of milk with a fat percentage that was satisfactory. In the unregistered Shorthorn class, Mr. E. B. Nelson, a Lanchashire exhibitor, won every open cup and award offered. This cow is a marvel. She

be entering upon a small boom. bulk of those staged and for once in a while the West of England exhibitor had the best of the battle and won handsomely all along the line. Mr. Candy, a Dorset maker, won the premier honors with cheese that cut more closely than Mr. Stevenson's cheese that came from Ayrshire. In the cheese fair, it was a remarkable victory for Somersetshire, Messrs. Carey and Portch winning both the prizes. This success of the English makers is probably due to the weather, for in such a season as the past, southern farmers are bound to have a pull over their more northern brethren. Stiltons, which are made in the centre of England and which is perhaps the English cheese par excellence, made a good show, as indeed they always do; but the greatest growth was to be found in the Cheshire section, and some very fine cheese were on view. This cheese at one time was practically confined to the large towns adjacent to Cheshire, but of late

flavor which is so difficult to get rid of.

In the central dead meat market in London there has lately been an excess of second and third quality of beef, and this has been felt rather severely in the trade for fat cows. At Islington, last month, cows of decent quality were sold very good ones at 80 cents. event of the month at Smithfield was the appearance of Argentine beef preserved by the new process of sterilisation of which much is expected by exporters from that country. If all, or even a portion, of what they claim comes urue, American exporters of chilled beef will have to look to their laurels. The cattle coming from the Canadian ranches this year are rougher than usual, much of this beel being sold at 68 cents per stone of 8 los. Very little Scotch beef has been on offer and the best short sides have fetched \$1.08 and the long sides, \$1.00.

The greatest demand now is for cattle of good weight and quality, and the supply of such animals is short and from all accounts which



First Prize Shorthorn Cow, in milk, London Dairy Show. Owned by J. Wilson, 20

Lady de Rotbschild's Jersey Cow "Whitewood IV., winner of the Blythwood Bowl for the best cow or heifer bred in England

gave 60 lbs. of milk, which is six gallons. Her morning's milk, which is always the poorer, had 5.84 per cent, of butter fat, and the evening milk 6.59 per cent. The Government standard of "purity," 1 may mention, is 3 per cent. The second cow gave nearly seven gallons of milk, while the best of the Lincoln Red Shorthorns yielded over five gallons, with a butter-fat percentage of over 4. Mr. W. Nisbett had the winning Shorthorn heifer, which at three years old gave over 21-2 gallons at 4 per cent. richneess.

In the Jersey section, a cow, Post Abit, belong to Mr. J. H. Smith Barry, took the lead, giving almost four gallons, with an average richness of fat in the morning of 5.24 per cent., and 6.50 in the evening. The winning Guernsey gave 4.34 guls., with a fat percentage of just over 4 per cent. The cheese section of the show

The cheese section of the show was exceptionally well filled; in fact, British cheesemakers seem to years its consumption has greatly increased in the metropolis. Other makes of cheese were but slendarly represented, but they consisted of included Double and Single Glovcesters, Leicesters, Derby, Caerphily (made in Glostershire and South Wales), Wensleydales (from Yorkshire), and Gervais (a French cheese increasingly made in Wiltshire).

An excellent display of butter is always expected at the Dairy Show, and this year was no exception. The winning samples were in all cases perfect in quality and flavor, and it is a pity that butter of this character is not more commonly made and so command the top price. In the section for Colonial butter in boxes containing not less than 56 lbs, competition was confined to Australasian factories, and on tasting many of the samples there was distinct traces of that very objectionable "fishy" reach us on this side, it appears that such are likely to be very short for some time to come, so that good prices are likely to continue for anything a little above the average.

PRICE OF WHEAT.

The recent increase in the price of wheat has given great satisfaction to English growers. Last week's averages, collected by the Government from 196 market towns in various parts of the country, show that the figure is now 32s. 6d. per quarter (81-3c. per bushel). This is a substantial increase on recent years, and in my opinion we shall see the prece higher yet. It would appear that in all the wheat-growing countries of the world the crop has not leen up to the average while the consumption grows every year. Hence it is evident that values show every tendency to rise. Let us hope it will be so.

ITEMS.

The fruit season has generally been a disappointing one. Plums have been a regular gluz, but the flavor nas been disappointing owing to the absence of sunshine.

Apples are a very short crop in all parts of the country. The flavor, too, is poor and the color bad. Cider-makers are complaining bitterly of the absence of fruit, and there is bound to be much less of the west country beverage sold. A.W.S.

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EASTERN TOWNSHIP NOTES

Perhaps the one thing lacking to complete the beauty of this autumn, was the absence of the rich, variagated colored foliage of the forests. The absence of early frosts no doubt accounted for this, but this was indeed a blessing, as had the September and October frosts laid their hand on us as heavily as they sometimes do, it would have been a great loss ; as it was most of the corn, beans etc., was harvested before any damage was done. The rains of September and consequent warm weather gave renewed growth to the pastures and meadows so that there was a sufficiency of feed for the stock on the fields up until the end of October, and even yet there is a good bite, and should favorable weather continue for another two weeks so that young stock can feed outside, it will shorten up the stable feeding This freshening of the season. pastures has put stock in better condition than they were a few weeks ago, and they will go into the stable in good fit. Owing to the scarcity of feed, especially west of the Richelieu River, many farmers are selling old cows and heifers, which in most cases will be advantageous, as many of these cows were of the unprofitable kind anyway, and while there were some good heifers sold to the butcher. yet very many were of the kind we class as "culls". East of the Rich-East of the Richelieu River, and through the rolling land of the townships, there is a good supply of rough feed, and few farmers have to cut down their herds.

Prices are low for cows and heifers. Strippers sold from \$10 to \$18. "canners" from \$5 to \$10, heifers from \$15 to \$22, fresh milkers have kept up pretty well and are selling from \$35 to \$60. Quite are seeing from \$35 to \$60. Quite a number of auction sales have been held, stock selling at the above prices, with feed selling, hay \$16 to \$22, according to quality, oats 60 to 69 cents for 40 pounds Young hogs and shoats, usually high at this season, are selling for about half usual prices. If we mistake not this class of hogs will be scarce and high in price next spring, in facts hogs of all kinds, and it will be good investment to carry them over where it can be done cheaply with a root diet.

Many creameries and cheese factories have closed for the season, especially where the milk can be shipped to Montreal. The increased price commencing Oct. 1st, and though the fresh pasturage kept up the supply is now getting short, and before this month is out we will likely see a scarcity. Shippers are getting 22 cents per gallon delivered in the city, which, after deducting freight, leaves \$1.90 per cent higher, there will be leas profit than other seasons when less was received for milk.

No doubt this will be one of the hardest winters our dairyman and stockmen have ever experienced. Usually when there was a shortage of one crop there was increased supply in others, the same pertains to localities, but not so this season; short crops all over and the same high prices prevail. Occas ionally we find a farmer, even in a locality where crops have been short, having almost a full crop, and in most cases when we inquire into the conditions we find good farming is behind it, they making use of all the opportunities that nature gave to aid them in increasing production.

"Habitat."

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NEW BRUNSWICK CROPS

With a few local exceptions the season of 1907 has been one of the most trying that the farmers of New Brunswick have ever experienced. Low temperature and rain, intermittent and continuous, prevented proper seeding and planting, it encouraged the growth of weeds, it interfered with the curing rad housing of the hay an-. grain crops, and an unfortunate short spell of warmth in early September started the rot among the potatoes.

Under these conditions, farm prospects, even with prices soaring, cannot be considered very bright.

One condition has resulted from the wet weather during the haying and harvest season, and that is, that there is more land plowed in readiness for next year's crop than for many years, and a favorable season in 1968 may go a long way to recoup the losses of 1907.

While the shrinkage in the potato vield means serious embarassment to many growers who have invested largely in commercial manures and machinery, it is the poor hav and grain yield which will most affect the country as a whole. Our live stock is now at a very low ebb, and any influences which tend to further discourage stock raisers, is very bad for the country.

With hay high up in the teens and oats hovering round the foce. per bushel mark, with bran and mill feeds 25 per eent, higher than the high prices of last year, the man who has a large stock partly dependent upon outside food supplies, leels that he better decrease the stock rather than buy feed. This feeling is especially true in those sections of the province where the hay and grain crops were short a year ago, and the stockmen had

heavy outlays for feed last winter.

Prices for farm products on the average to-day in all our local markets are higher than ever before in the history of October market quotations, and those fortunate farmers who enjoyed favorable soil conditions and had adequate help to rush their work im' the few fase days of the season, are reaping the benefit.

A strong testimonial to the effectiveness of Bordeaux Mixture as a blight and rot preventive for potatoes is afforded by the twenty acce path of P, de L. Clements at Burton, where the vines of the potatoes retained their sap and foliage until digging, and there is practically no rot, while in many fields in the neighborhood there was a large proportion of rot.

While the Bordeaux Mixture was quite generally used throughout the province there were only a few growers who applied it thoroughly or sufficiently often to protect the vines. Mr. Clements was fortunate in taking the precaution to secure a good power sprayer and also in giving his field a thorough coating just before the warm spell in September.

The apple crop is turning out only a fair yield. A great many orchards are having their off year, and the cloudy weather has prevented the usual high coloring of such varieties as Alexander's, "Farmeuse, Wealthy and McIntoah Red. The demand for apples is good, but prices are not yet high except for occasional fancy lots.

McAdam.



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THE FARM

WHEAT BREEDING IN ENGLAND

Important work in plant breeding is beine carried on at the Experimental Farm in connection with the world famed university at Cambridge, England. By the crossing of varieties of wheat brought from various quarters of the world and the selection and perpetuation of hybrids possessing improved qualities, a number of valuable new sorts have been evolved having fixed desired properties.

In undertaking the work with wheat, Professors Middleton and Wood and Mr. Biffin, all trained, practical scientific agriculturists, aimed to produce varieties equal to the best English sorts in production and stiffness of straw, and possessing milling qualities as good as Manitoba hard wheat. In addition, rust resisting power was a quality aimed at. Very many sorts found useful in foreign countries refused to be acclimatized, and were accordingly discarded, and not until a wheat had yielded well re-peatedly in the English climate was it crossed with native sorts possessing desirable properties. From year to year the scientists made their selections, until fixed types of all round excellence was round excellence was attained. Baking tests were applied year by year and carefulness was exercised in discarding hybrids that showed inclination to rust. The result of this work, as reported by the officers of the station, is that Britsh wheat growers are soon to have access to the seed of new varieties that will in time relieve the British miller of the necessity of mixing imported, hard sorts with the home grown crop in order to get fine baking flour. In addition, it is expected that this crop will be surer and the yield heavier than heretofore. Even though a well equipped experiment station accomplished nothing more than the improvement of one kind of farm crop, its exist-ence and liberal support would be justified.

, S. B.

RIB GRASS

This weed is perhaps more generally known amongst farmers as Buckhorn or Finglish Plantain. It is a perennial plant, which was introduced from Europe and has now become widely distributed throughout the Dominion. In Ontario it is very common in red clover seed, from which it is difficult to separate it.

In its first year this plant forms a rosette of marrow leaves from four to eight or ten inches long, which are distinctly three to five ribbed. On old plants they stand erect. The flower stalks are stiff, slender and grooved, standing when well developed about eighteen inches high and much above the leaves. The flower heads are at first ovoid and rather showy by reason of

their numerous yellow anthers. They became elongated with age and form dense cylindrical black spikes of seed from one to three inches long. The capsules are oblong, very obtuse, two seeded, opening about the middle. Seeds; chestnut brown, minutely granular, roughened but highly polished, boat shaped with rounded ends, the outer face rounded with the edges folded inward, around a deep, longitudinal groove in the centre of which lies a dark colored scar which aometimes has a pale ring of dried mucilage around it.

The plant blossoms all through the summer and is propagated only by its seed, the first of which ripens early in July.

The chief injury by Ribgrass is due to the presence of the seeds among those of grasses and clovers grown for sale; the value of which is greatly depreciated by it. Where it occurs abundantly it also does



RIB GRASS

much damage by smothering out other plants, as its low lying rosette of leaves will form a dense wat. The plant itself is relished by stock, and sheep seem to be particularly fond of it.

This weed cannot resist good cultivation. Where a field is infested by it, ploughing it down and resowing it with clean seed will be an effective remedy. Where a short rotation is practised there is little danger that Ribgrass will become established.

On lawns, frequently cutting below the crown is the only method of eradicating it.

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THE BREEDING OF CEREALS By Professor Wm. Lockhead, Macdonald Agricultural College

Dr. Hugo De Vries, in his latest book. "Plant Breeding", gives a popular and non-technical description of the methods employed in Europe and America in the production of new and improved types of plants. The chapters devoted to

the breeding of cereals read like a romance, and ought to be of great interest to Canadian agriculturists. The work of Nilsson of Sweden and Hayes of Minnesota, is des-cribed at some length, as their results (the author believes) are in accord with his Mutation Theory of the origin of species. This the-ory stands opposed to the theory of Natural Selection proposed by Darwin, who believed that species were changed slowly and imperceptibly by minute and favorable variations into new species, the old forms perishing in the intense struggle for existence in nature. According to De Vries, species are not changed gradually into other species, but "new forms arise later-ally from the old stems," as "aberrants" or "sports", which form the new species and are the real sources of progress. These sports or mutants, therefore, are new species that arise suddenly, and are not connected with the parent species by intermediates. From the first they are constant, that is,

EFFECT OF SELECTION LIMITED.

De Vries believes also that the amount of variation possible in a species, due to environment and selection is limited, and that there is always a tendency that it will fall back to the normal for that species. This corollary to the Muspecies. This corollary to the Mu-tation Theory, if true, is of very great importance in the breeding of plants. For many years many of our investigators and breeders of cereals, have tacitly assumed that any cultural variety of wheat, for example, can be improved to an indefinite extent by careful select-ion year after year of the best heads or grains from a field. While it is true that in the majority of cases increased returns have been obtained by the method of continuous selection during the few years it has been tried, there are evidences that in some cases the limit of increase has been reached. In fact, in a few cases, with the same degree of care exercised in selection from year to year, diminishing returns are reported.

COMPOSITE NATURE OF MOST CEREAL CROPS.

The results of Dr. Nilsson's labors at the Agricultural Experiment Station of Svalol in Sweden appear to throw light on this matter. He found by most careful botanical studies that cereal crops instead of being pure are composed of many, perhaps hundreds, of different types.

These types are mostly the progeny of hybrids, the result of crossing that has occurred for many years; in some instances there will be a lew distinct mutation forms. When the types are separated and multiplied and their characters remain constant, it shows that the new hybrid forms have become well fixed, or that the types are mutatious. When the progeny of a mother plant shows much variation as has sometimes been observed, it is prima facie evidence of the hybridity of the mother plant of but recent crossing.

These elementary types, as De Vries calls them, are often so much alike in botamical characters that the casual observer cannot distinguish them. Only the patient work of Nilsson and his scientific staff of botanists was able to make out their differences.

A good example of the difference between a large plot of a pure strain and a selected mixture was observed by the writer and many others at the O.A.C. two or three years ago. Professor Zavitz had secured enough of seed as the progeny of a single mother plant to sow a large plot. The plants up to maturity were wonderfully uniform and even, and the whole plot was one of beauty. In strong contrast, so far as uniformity is concerned, were the plots grown from seed selected in the usual way, and as a result, containing a mixture of many elementary types.

PURE TYPES.

Evidences are forthcoming that the only way to secure a pure type of cereal is to start with a single grain, or the product of a single head, or of a single plant. Nissen found that by this method there was little need for that laborious work of selection, for the grains were very much alike. There was great uniformity of shape, size and color of the grains, and constancey of characters under good cultural conditions. It was now possible and easy to breed pedigree-strains or cultures that are pure and unmixed, the only dificulty being the elimination of hybrids that sometimes creep in due to cross fertilization.

Improvements in cereals, according to Nilsson, may be most quickly effected by a diligent search for such elementary types as comply with the ideal sought for out of the hundreds that are present in most cultivated fields of cereals.

ASSOCIATION OF UNIT CHAR-ACTERS.

In connection with the Mutation Theory De Vries introduces the conception of "unit-characters" for purposes of statistical study of the characters of a plant. He supposes that each plant consists of thousands of elementary entities which combine to give it its form and function. This association of unitcharacters, or correlation, has been shown to obey natural laws, and the study of these laws enables us to predict one mark from the observation of the other; and it has been found that there are regular coincidences of apparently independent characters and marks. For example, the length of head, the size of grain, and the strength of stem are related to the external conditions influencing nutrition, such as conditions of soil, water supply and exposure ; and the hair-iness or the form of scales is associated with hardiness or resist-ance to disease, as was observed by Nilsson.

It will be observed that in the first example the cause of variation is evidently external, while that of the other is internal. Now, De Vries' theory holds that those variations induced by external stimuli are of a fluctuating nature and are not hereditary, while those variations induced by internal causes are hereditary. His mutations fall into the latter class.

From these considerations it may be inferred that the productivity of a mutation can be increased by the selection of the largest grains from the best heads.

PURITY OF PEDIGREE-STRAINS.

If Nilsson's results in Sweden are correct, (they are at least very convincing) the purity of many of the pedigree-strains produced by our breeders in Canada is open to much doubt. In fact, it is very probable that many of the pedigreecereals sold by members of the Canadian Seed Growers' Association are not true pedigree-strains at all, but are mixed strains. This is obvious when we consider their origin. The original plot was planted with seed from many heads obtained from different plants, with the strong probability that there was "an assemblage of many types in the original handful of selected heads." The same proceeds of breeding by the use of selected heads was con-tinued from year to year. It is quite possible that in the strict process of selection each year the number of elementary types in some cases has become much reduced, and even become pure, as was shown to be the case with Rimpau's seed in Germany. The Canadian Seed Growers' Association adopted essentially the German method of plant improvement, which in turn was similar to that adopted by Hallett of Brighton, England, about fifty years ago. "To the method of selecting each year the best kernels on the best ears of the best plants, Hallett gave the name of pedigree-culture.

Its essential feature is repeated selection." He assumed that his pedigree-strains must be kept up to their highest point of development by continued selection, else they would return to their original starting point. "In practice this means that all the seed destined for sowing should be produced directly from the pedigree-stock, and that this is to be kept constantly under the same conditionsof treatment and sharp selection."

Some of our most advanced breeders of cereals in Canada, such as Zavitz of the Ontario Agricul-tural College, Saunders of the Central Experimental Farm, and Klinck of the Macdonald College, must have realized for some time that there was a weak point somewhere in the method of continuous selection for the improvement of plants, as usually followed ; for ontheir own initiative they have begun the development of desirable strains from single mother plants. Professor Wm. Haves of Minnesota adopted this method in his centgener plots, with remarkable success, but he found selection nec- * essary also to secure the maximum productiveness of the type selected.

It is acknowledged on all sides that the Canadian Seed Growers? Association has done and is doing a most valuable work. The writer is proud of his membership in that Association. Looking to the future of the work, however, it seems that the pedigree question should be thoroughly discussed in the light of the new discoveries of De Vries & Nilsson, so that no mistake may be made which will be difficult to rectify afterwards.

It is evident, apparently, that in order to get the best results in plant production, it is necessary to select such pure strains as satisfy the ideals, by hybridization if required, and by good culture and selection to secure the largest possible vield or productiveness of that strain.



The Dominion Agricultural Offices of the Potash Syndicate

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Just how to improve the conditions affecting the horse breeding conditions in Ontario, as revealed by the recent Commissioners' report, seems to be a difficult and delicate matter. At a recent meeting of the directors of the Ontario Horse Breeders' Association, the question was the subject of considerable discussion. The concensus of opinion seemed to favor an educative, rather than a compulsory, or a prohibitory policy. This is, perhaps, the best policy to adopt. At the same time there is nothing to prevent the substitution of the Scottish Premium plan for the American Syndicate, thus eliminating the worst principle we have at work in the horse business to-day. The former has been in operation in Scotland for a number of years, and has given entire satisfaction. There is nothing to prevent the same satisfactory result being realized if this premium plan is established here.

GREAT YEAR FOR CLYDES-DALES

The current year has been a banner one with the Clydesdales. The Secretary of the Clydesdale Horse Association of Canada reports that during the first nine months of 1907 the registrations of pure bred Clydesdales has considerably more than doubled those of the whole of 1906. While this was in a large measure due to the raising of the standard of eligibility for imported Clydesdales, yet the work of recording for cross Canadian breed fillies has in itself been of unprecedented proportions. The question has been raised that the standard for this class should also be advanced.

While there might be some benefit derived from raising the standard of the Canadian StudBook there is a danger that the good would be more apparent than real. The registered four cross filly, if bred at all, would always be bred to a Clydesdale stallion, and the enhanced value of the colt, always eligible for registration, would be an inducement to that end. In the case of the imported filly, improvement is what is looked for, not mere competition for Canadian breeders, and a guarantee that she is at least a little better than the average produced at home, in point of breeding at least, is the only apology for her presence.

ADVERTISE IN THE FARMING WORLD.

IMPROVING HORSE BREEDING TOO MANY UNFINISHED HOGS

The following letter was recently sent by Mr. William Harris, who controls the buying of hogs at Toronto city market, to drovers shipping to this market :

"In almost every load of hogs delivered yesterday and to-day there is a smaller or larger percentage of thin hogs, some of them light, some of them heavy, and all of them of no value to me for killing

"This is to serve you notice that all such hogs coming from you will be cut in price from \$1 to \$3 per cwt., according to how poor they are. There is one remedy, and and only one remedy, for this condition of affairs, viz., delivery must not be taken from farmers. Such and sent back again for further feeding. If, in the face of this specific statement, hogs of such a character are delivered to me, you must accept the penalty without

The over supply of these hogs this fall is due to the scarcity of feed. Many farmers are compelled to dispose of their stock in an unfinished condition, and will let them, go at almost any price. If, however, drovers are forced to cut the orfce from \$1.00 to \$3.00 per cwt., many may be induced to keep their hogs in the feeding pens a few weeks longer. Even if feed is scarce and high in price, it will pay to use it on unfinished hogs rather than let them be sacrificed at a couple of dollars below their real value.

The packers this year have discriminated more in the buying of hogs than at any time in the his-tory of the bacon trade. For several years only a nominal difference prevailed between the prices paid for selects, and lights and fats, and at many country points no difference at all was made by drovers. Farmers, because of this, have ignored the claims of the bacon trade and have produced the hog that would pay them best irrespective of quality. As one kind would sell for the same price as the other there was no incentive to produce the best. Many of them will now have changed ideals. A dollar or more per cwt. in favor of the good quality hog will make him the popular one in the country. The efforts of the packer in this direction should not be of spasmodic character. A discrimination in price commensurate with the value of the different classes of hogs for the bacon trade should be maintained the year

round.

THE BACON HOG SITUATION

From all information obtained, the rush of brood sows to market still continues. This is a great mistake, which farmers will see before another year is past, as there were all too few hogs produced in Ont-The only reason ario this season. given for disposing of breeding sows, and curtailing the hog production, is that grain is now 100 scarce, and too high in price to run sows over winter, and that the same condition will prevail probably to a greater degree next summer, and that there will be no profit whatever in feeding hogs. We are also told, that packers have taken an undue advantage of the farmer's position this fall, and have added to their hardships by reducing the price of hogs, just at a time when the producer stood to lose money, by feeding costly grain, even though summer prices had been maintained.

If packers have taken this advantage, simply because they knew farmers would, on account of the high price of feed, rush hogs out at any price offered, they certainly are standing in their own light, and are helping to bring about a state of affairs, whereby they themselves will be the greatest losers, if the threatening hog famine forces the closing of packing-houses, for want of material next summer.

We are not prepared to say why hogs are selling at from \$1 to \$1.50 per cwt. less than they did a few months ago, although we have tried to obtain some definite information for our readers on this line. We are, however, inclined to think that various causes have led up to it. The rush of unfinished and undersized hogs to market has had something to do with it, and with these an unusual number of half-fat old sows (many of them just off the grass). The proportion of really, select packers hogs is very low in shipment just now, and it is evident that it must be difficult for packers to find material with which to supply their faucy and high priced trade.

Another thing which might be considered, is that hogs have not declined any more than horses or unfinished cattle, with which the market is similarly glutted. But we think the primary cause is, the peculiar situation of the money market. Packers we presume are finding the same difficulty along those lines as others who have been depending on the banks to advance them cash with which to purchase their supplies, at the season when those supplies are offering heaviest.

Traders in almost every line are just now up against a situation where they practically have to turn the finished article into cash wherewith to finance their own business, as they cannot obtain the usual help from the banks, and we presume the packer is no exception. He is thus obliged to go a little slow, while the farmer, anxious to have as much grain as possible to sell at prevailing high prices, is "rushing" the packer with his unfinished production. And we will not be surprised if the outcome is that before Xmas., we will see either an absolute refusal by the packer to accept anything but choice hogs, or a still greater de-cline in the price for all sorts.

But let the present situation be what it will, the outcome must be apparent to every thinking farmer. We have in Ontario several large pork-packing industries. After years of experimenting we have created a demand in the British market for their output. There is this also to be said, The United States, one of our competitors for that market, is situated similarly to ourselves (only worse). They are laboring under a more difficult feed situation than we are. We have cultivated the English man's appetite for our bacon, and he is looking to us to satisfy it. He must and will pay the price for the has to get from goods which he this side of the Atlantic next year. The question is, what are Farming World readers going to do about it? Are they going to get panicky over the present situation, and go out of hog production, or are they going to think seriously, and hold on to their brood sows for another year? True it will cost a little more than usual to winter them, and carry their offspring on, until another harvest comes, but if we can read at all the signs of the times, it will be money well spent. A reasonable number of hogs are a necessity on every farm, and with intelligent care they have seldom, if ever, been a loss. And what

Ontario Department of Agriculture DEMONSTRATION FARM

TENDERS FOR CLEARING LAND Sealed tenders are solicited by the undersigned on or before November 25th next for the clearing of approx-imately 100 acres of land on the Government Demonstration Farm, on 12, Concession 2, Township of er, and Lot 1, Concession 2, Walker, Township of Clergue. The work of clearing to include underbrushing, fellclearing to include underbrushing, fell-ing, logging and burning off the said loo acres. All trees of a diameter of ten inches and up at three feet from the ground are to be cut into saw-logs of suitable length, and hauled to the railway right-of-way on the farm. All spruce and balsam trees under that diameter, down to six inches, to be cut into pulpwood bolts, four feet in length, and piled upon the right-of-way. All tops, branches, and general debris on the ground are to be piled and burned at such time in the spring of 1908 as may be directed by the Department. Tenders to state a price per acre for doing the work above indicated. as

Money will be advanced from time to time during the progress of the work, but not to exceed 60 per cent of the total value of the work done until it is all completed to the satisfaction of the officer in charge of the farm, or such person as may be ap-pointed by the Minister. Security will be required for the proper fulfilment of the contract

The lowest or any tender not necessarily accepted.

Maps and further particulars may be obtained on application.

NELSON MONTEITH. Minister of Agriculture, Toronto, Ont other branch of farming has not seen its occasional years when we would have been better without it, but we did not wish to do so as many are now doing with hogs.

Try keeping the sows warm and comfortable, and less feed will do. Sows are generally fed more grain than is necessary. If they are obliged to keep in a cold place it takes more to keep them up; if they have comfortable quarters the large part of their food can be made up of pulped or whole roots, ensilage, slops from kitchen, etc. Clover chaff and tops, or clover hay cut fine, scalded with a little chopped grain, will be eaten greedily.

Then for spring litter, provision can be made to get them out early to pasture by sowing some mixed grain, if clover or fall rye is not already provided. The situation can be met, and met profitably, and we hope our readers will not fail to take advantage of it. F. W. S.

. LIVE STOCK OF OLDEN DAYS

We learn from the household book of Prince Henry, son of James I., the weight and price of beef and mutton supplied to the family of the prince. It is there stated that 'an ox should weigh 600 pounds the four quarters, and commonly cost £9 Ios. or thereabouts ; a mutton should weigh 46 pounds or 44 pounds, and they cost by the stone 28. 3d., the stone being 8 pounds." These weights and prices were for the best and largest cattle, and were exceptional, and largely beyond what they were even a century after this period. In the reign of Queen Anne, in 1710, when half the stock in the kingdom were fed on unenclosed commons, the cattle and sheep sold at Smithfield Market weighed on an average as fol-lows : Beeves, 370 pounds ; calves, 50 pounds; sheep, 28 pounds. In 1795-1800, the average may be stated as : Beeves, 800 pounds ; calves, 140 pounds; sheep, 80 pounds, and lambs, 50 pounds.

15 November, 1907



DO NOT EAT RAM LAMB 28

So much has been said in past years about that careless and wasteful custom of allowing lambs to grow up without docking or castrating that the writer was astonished on visiting the stock yards at Toronto a few days ago to see droves of lambs carrying full tails, but worse still to see among them scores of bucks which no respectable butcher would think of cutting up for his customers. If he did so, he certainly could not plead innocence except he were not blessed with a nasal organ.

We were informed by a reliable wholesale butcher that we get more than our just proportion of this species of lamb in Toronto. The village or country butcher usually picks out a lot of the ewe lambs from the flocks in the summer, and when the drover comes along in the fall for the clean up, the bunch often consists of two-thirds bucks. These, we understand, are not admitted to Buffalo market, consequently they are disposed of to our local butchers at about one dollar per head less than their actual

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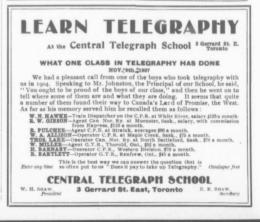
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value had they been castrated when they should have been.

The farmer must be the one who loses this \$1.00 per lamb. It comes out of his pocket one way or another. If this does not influence him I would like to ask if it is not already within the power of our meat inspectors to prevent the slaughtering of this class of meat. Is it not high time the matter was brought before the legislature in such a way that a law would be passed preventing the selling of such stuff to an unsuspecting public.

S. W. F.

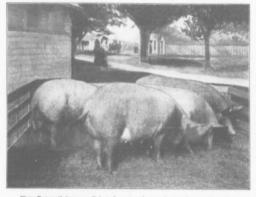
THE DEVELOPMENT OF BETTER TYPES

The evolution of present day farm, animals shows the result of years of thoughtful work by some of the brightest and most intelligent men of the past. That much

considered an improvement). Again, the Shorthorn type has been changed very materially since the days of the Bates popularity. Now, usofulness as a beel maker and especially when combined with good milking qualities is more generally the type looked for. Mere style and gay appearance, which once counted for much, is now laughed at unless it be the finishing touch to a beast of substance and flesh. These will serve as illustrations showing that it is quite possible to change and improve the type dy carcful and persistent breedine.

THE FARMING WORLD.

None of these changes have been effected immediately, nor have they come about by mere accident as some suppose. the results have been attained by steady and persistent work along definite lines with a distinct object in view. Doubtless in the evolution from one type to another there have been setbacks, disappointments and



These Tamworth Sows won diploma for pen, and were winners wherever shown this fall. Owned by Bertram Hoskins, The Gully, Ont.

improvement has been effected in every direction is plain to those who look and needs no proof. Compare the Clydesdale horses imported to-day with those of 50 years ago, and you have a striking instance of steady improvement. They are not heavier in weight but legs and feet, the essential parts, are far superior. For hard work they have much more endurance, they are more active, less subject to lamings or blemishes. They have less soft flabby flesh and less inclination to "grease" and kindred ailments. They are becoming more uniform in type, and carry, on that account, more prepotency. Again, you have changes quite as distinct in Shropshire sheep. They are much more beautiful in appearance, more compact in form, produce a better class of wool. They are easier class of wool. They are easier feeders than when they first obtain-ed their popularity. There is no wool on legs, nor head covering (Neither of which will by some be

heavy losses. Yet with the desired result in the mind of the breeder. and with a certain intention (which cannot well be described) as to what mating will best produce it, progress is certain, although it is sometimes slow. The present day popular Scotch Shorthorn is in type entirely different from either of the once popular strains of Booth or Bates. The cattle are not so large, but though smaller they are smoother, with more quality and substance, and especially do they excel in early maturing qualities. Nor are they without milking qualities of a high order. Mr. Cruickshank, to whom the greatest credit is due for the changes effected, was a great advocate of cultivating the milking qualities. In order to test his cattle in this regard he invariably milked the young heifers by hand in order to prove by actual testing their ability as milk producers. All those really inferior in this respect

were discarded as breeders and were discarded as breeders and sent to the butcher. When the popularity of his cattle increased in the United States, the demand became so strong that everything was called for and sold for breeding purposes regardless of milking qualities altogether. At the same time this did not preclude him from selecting the best milkers for retention in his own herd, so that progress was steadily made in this direction. We fear, however, it is too true that many of the fore-most breeders in Scotland at the present time pay little attention to the milking qualities of their Shorthorns. The beef quality is the main thing aimed at and sought for by the majority. Besides the for by the majority. Besides the tendency at the shows is towards the strong beef type in the first place and the younger generation are thus educated in spite of themselves in this direction

To those who do not follow dairving as a specialty, and to the great mass of ordinary farmers the Shorthorn is held by most to be the best ideal. They live and thrive, responding to good treatment in every country. Their greatest power lies in their ability to improve the common, everyday cattle of all breeds. No other breed can show better results in this respect, and when there is added to beef a good display of milking powers we cannot wonder that they are popular. We have no harsh word for those cattle useful only as milk producers. They suit the soil and environment of some admirably, but there are others who find it more profitable to comhine the two possibilities of beef and milk. There are farmers, who, owing to circumstances, must carry on mixed husbandry. A proper type for such condition can be created and will be without doubt evolved, furnishing a cow capable of producing the amount and quality of milk given by the average dairy cow, and in addition a calf with the best beefing quality. But we repeat, it will not come by accident as is so often asserted. Persistent selection of the ideal cow and breeding her to selected bulls will finally present the type which the present day demands. When it has been evolved it will supply a distinct need and add to the returns of many farmers whose soil and situation present possibilities in their direction.

The ideal cow need not be registered, in fact it is probable the vast majority will be grades mated with a pure bred bull with the blood of superior milking dams strongly predominant. Such cows were numerous 30 years ago, but the low price of beel coupled with the prevailing fad for the richer milk of some of the dairy breeds caused them to be crossed with Jerseys, Ayrshires, etc., resulting generally in nothing definite or useful for either beel or milk. They can be turned toward the old type and improved by care and study, and it is not too soon to commence now.

THE FARMING WORLD.

THE DAIRY

PAYING BY TEST

Mr. Singleton's letter in this issue puts the question of paying for milk according to quality in a clear and concise form. Aside from the fact that it would remove the temptation to add water to or take the cream from milk supplied to a cheese factory, this method of paying for milk would improve the quality of the cheese and give a larger yield from a given quantity of milk. It has been demonstrated beyond a doubt that 100 lbs of 4 per cent. milk will make more cheese than 100 lbs. of 3 per cent. milk.

There is no question but what the paying by test plan gives nearest to what is correct in appor-tioning the dividends at a cheese There should be a revival factory. of interest in this question among dairymen. The Farming World is open to discuss this question in all its bearings. We published in last issue and also in this several letters from the instructors dealing with this subject. We shall be glad to publish the views of patrons and makers also. The paying by test is something that cannot be forced upon the dairymen. Its adoption by the factories can only be brought about by a campaign of education, and these col-umns are open for this purpose.

Since the above was written we have received a letter from Prof. Dean dealing with this question. It appears in this issue, and puts forward a strong argument for paying by test.

SOME STRIKING COMPARISONS -DAIRY COMPETITION

The September yields in various cow testing associations afford some interesting and striking comparisons :

Cowansville, Que., 111 cows, 48,-795 lbs. milk, 2139.1 lbs. fat.

St. Marc, Que., 114 cows, 60,045 lbs. milk, 2675.0 lbs. fat.

St Prosper, Que., 113 cows, 78,455 lbs. milk, 3304.8 lbs. fat.

From practically the same numbet of cows the owners at St. Prosper obtained 27,660 lbs. milk and 1165.7 lbs. fat more than did the owners at Cowansville. Butterfat is particularly valuable now-a-days. It pays to feed well : it pays to feed good cows well. Most of the farmers in the association at St. Prosper have been feeding soiling crops this summer. There is a first rate combined creamery and cheese factory in operation.

Some other average yields are :--

Ste. Emelie, Que., 2 Oct., 130 cows, 426 lbs. milk, 4.5 test, 19.4 Ibs. fat.

Culloden, Ont., 6 Oct., 278 cows, 601 lbs. milk, 3.8 test, 22.8 lbs. fat, New Glasgow, P. E. I., Sept., 142 cows, 532 lbs. milk, 3.6 test,

19.6 lbs. fat. Jonquières, Que., 6 Oct., 132 cows,

452 lbs. milk, 4.4 test, 20.3 lbs. fat. C. F. W.

20,778 lbs. OF MILK IN ONE YEAR

The Holstein Cow Boutsje Q. Pieterje, De Kol C.H.B. 6093 (H. F.H.B. 66031) owned by the Ontario Agricultural College has just finished a year's milking record which, at least, has never been exceeded in Canada and rarely equalled elsewhere. From October 27, 1906, to October 26, 1907, both days included, she produced 20,778 pounds of milk containing 781.91 pounds of fat at a cost of \$72.66 for feed. During 1906, this cow gave 11,025 lbs. of milk and 463 pounds of fat at a cost of \$44. During the 30 days of November, 1906, she gave 2,522 pounds of milk and 103 pounds of butter. For seven days during that period she

month or 56.92 lbs. for every day in the year.

This remarkable cow was bred by W. K. Sexton, Howell, Mich. She was calved November 18, 1902, Sire Sir Akkrum Pieterje De Kol, 22519 H.F.H.B., dam Boutsje Q Pietertje, 40873 H.F.H.B. She was purchased for the Ontario Agricultural College, a couple of years ago from Mr. Geo. Rice, Tillsonburg, Ont.

WHY NOT PAY BY TEST ?

Editor, The Farming World :

I have read the article in the Farming World of October 15 en-titled "Dishonest Dairymen." I strongly endorse your views on the paying for milk according to its quality. It is undoubtedly a step in the right direction for more reasons than one. Not only will it

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The Holstein Cow Boutaje. Owned by the Ontario Agricultural College, Guelph

one day 96 pounds of milk.

The record for 1907 is a notable one. \$1 per cwt. is a fair valuation for milk during the year. At this price Boutsje's milk production for the year has a cash valuation of \$207.78. Deducting the cost of feed, she returned her owners a profit of \$135.12. A herd of ten cows, the average number on most farms, of the same stamp, would arms, of the same stamp, arms, of the same stamp, arms, of the same stamp, are stamp, and significant of \$2077.80, or a net cash return of \$1351.20. There is so large a margin between the record of this and that of the average cow of the country that comparisons are odious. A record one-quarter as large as that of Boutsje would be larger by a couple of thousand pounds than that of the average cow. And yet farmers keep these average cows and much inferior ones also for milking purposes. Boutsje's record was 1748 lbs. per

gave 643 pounds of milk, and for remove the temptation to skim and water milk, but it will encourage dairymen to take better care of the milk they send to the cheese factory. It will encourage the keeping of better breeds of cows and the selection of those that give the richest quality of milk. The richer the milk the better the qual-ity of the cheese made from it. Why not pay by test ? Chas. B. Larry.

Instructor, Finch Group.

. WHERE MILK PRODUCER WOULD BENEFIT

Editor, The Farming World :

I have carefully read your article entitled "Dishonest Dairymen" of October 15th, and I certainly agree with you that payment for milk according to quality would at once do away with at least a great deal of the adulteration of milk practised at the present time, as

15 November, 1907.

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well as do away with much of the disagreeable work of the instructor, cheese-maker, and factory management.

Not only this, but factory patrous would reap a direct benefit from dividing the proceeds according to the quality of the milk.) have noticed that where the division of the proceeds according to the quality of the milk was introduced in a factory the great majority of the patrons immediately provided better milk stands and better facilities for cooling their They quickly realized that milk. milk improperly cared for will not test as highly as milk well-cooled and covered. This better care of the milk means more cheese, and better cheese from the same quality of milk. I have known some factories to obtain a substantial reduction in the number of pounds of milk required to make a pound of cheese, by introducing the payment by test plan, and this while the factory was still operated by the same cheese-makers as formerly. A reduction of a quarter of a pound of milk in the quantity required to make a pound of cheese (say from 101/4 to 10 lbs.) would net the patrons an increase of .56c. per ton of milk after paying 14c. per pound for making cheese, the cheese being worth 12%c. per pound.

Yet we cannot get away from the fact that the patrons of a factory own the proceeds from the milk, and may divide them as they see fit, and any movement in the direction of payment for milk according to quality must be conducted simply in an educational way

Certainly, factory owners and patrons have not taken kindly to payment for milk according to quality. This has been, to a certain extent, due to the fact that dairy authorities have never agreed as to just how the division should be made. Then the introduction of made. the division of proceeds by test has a tendency to destroy the factory's patronage, provided that neighboring factories are still operating on the "pooling" system. Frequently the best and largest patrons of a factory, who have for years been breeding and feeding for vield alone, love milk testing less than the average patron of the factory. Naturally, if the neighboring factory is still operating on the pooling system, such are inclined to go there. For this reason factory owners have never, to any extent. encouraged the payment for milk according to quality.

The farmers own the proceeds of the milk, and if they wish to divide them on the "pooling" system, they should bear the expense of tests for adulteration, and this work should not be done at the expense of the public. The Department of last spring it decided to assume the eutire cost of instruction work, accepting no fee from the factories, thus leaving the instructors free from milk-testing. In starting out this season the instructors were instructed to test milk only where milk has been found suspicious by the test of the makers or some other person, or, where there was good reason to believe that adulteration was being practised. The instructor is supposed to clear up all suspicion and exonerate the patron in question, or collect sufficient evidence to convict him. The prosecucion is then supposed to rest with the factory management or committee, who have the instructor as an expert witness.

In some cases this season the instructor has settled the case by collecting a sum of money to cover damages sustained by the factory. They are, however, devoting prac-tically all their time to the improvement of the dairy industry, and are doing more good than they could formerly, when so much time was devoted to milk testing.

J. F. Singleton, Instructor in milk testing

Kingston Dairy School.

PROF. DEAN ADVOCATES PAY-ING BY TEST

Editor, The Farming World :

iy, easily started. Vibration practically overcome. Cheaply mounted on any THE TEMPLE PUMP CO., Mfrs., Meagher and 15th Sts., Cl

We are much pleased to see a revival of the question of paying for milk at cheese factories according to its value. After a lull, in which

doubtless honest patrons have suffered, the breeze of "paying for milk according to quality" has begun to blow again, and if we mistake not there will be quite a gale before calm weather again settles over the cheeseries. We take much pleasure in complying with your request for an article dealing with this matter.

There are two phases of the question which may be briefly considered :

(I) The moral.

(2) The business or commercial.

A fundamental rule in all moral questions is, make it easy to do right, difficult to do wrong. Most men have the germ of dishonesty in them somewhere, and this develops under favorable conditions, hence it is always wise to make the conditions as unfavorable as possible for the growth of this germ of dishonesty. When factories pay patrons for milk according to the weight of milk delivered without considering the difference in value of milk produced on the various farms, the managers of such factories are placing a temptation in the way of weak patrons, who are in danger of sending weak milk to the factory. On moral grounds, therefore, if the temptation to water milk causes our weak brother (patron) to offend, we ought not to pay the same price for water as for milk, thereby causing the weak patron to stumble. We would suggest that all ministers in cheese factory districts preach at least one

It is a combination portable, stationary or tracti-



sermon a year on the bad effects of tempting the weak brother to stumble with a pail of water, whereby some of the water gets spilled into milk intended for the manufacture of cheese. In saying this we are not setting ourselves above other persons. College Professors are also weak in spots and need moral starch in or on their "bosoms" as well as others.

However, as "Parming World" is not a religious periodical, though its Editor is a "pattern" of honesty and fair-mindedness, we shall not dwell further on this phase, but proceed to discuss the commercial side of the problem. As a result of 2,550 experiments made with milk testing from 2.7 to 5.5 per cent. fat, in which were used nearly 200,000 Ibs. milk during a period of five years, we ascertained the following facts:

Average per cent. fat in milk	lbs, cheese made per 100 lb, milk	Ibs. cheese per Ib. fat in milk	rease in the cese per 100 , milk for h increase 5 (%) pr. ct. in milk.
3.0	8.89	2.92.	Inche Che Che Che Che Che Che Che Che Che C
3.5	9.54	2.70	65
4.0	10.36	2.57	.82
4.5	11.08	2.47	.72
5.0	11.77	2.36	.69

The foregoing table shows that milk testing $3\frac{1}{3}$ per cent. fat produced on an average about 6-to of a lb. more cheese per 100 lb. milk than did milk testing 3 per cent. fat. Milk testing four per cent, fat made about 8-10 of a pound of cheese more per 100 lbs. milk than did the $3\frac{1}{3}$ per cent. milk. The increase in the next two groups ($4\frac{1}{3}$ and 5 per cent.) was practically 7-10



of a pound of cheese each, over preceding groups. Figured into dollars and cents, with cheese netting Ioc. per pound, we have an increased value in cheese of from 6%c, to over 8c. per 100 lbs. milk, for each increase of one-half of one per cent. fat test in the milk. The average increased value per 100 lbs. milk is over seven cents for each increase of one-half a per cent. fat in the whole milk. We think that the foregoing facts demonstrate clearly that there is a difference in the cheese value of milk and that this difference is of sufficient importance to warrant some trouble and expense in arriving at the relative commercial values of different milk as delivered at Canadian cheeseries. The difference in value of 4 per cent. milk as compared with 3 per cent, milk is nearly 15 cents per 100 lbs .- cheese netting 10c. per lb.

The next question is, how shall these commercial differences he If a measured or ascertained ? farmer delivers wheat on the market he is paid a price according to its weight per measured bushel or according to some standard or grade. He does not expect to receive so high a price for a bushel, or for 100 lbs. of wheat weighing 58 lbs. per measured bushel, as for wheat weighing 60 or 62 lbs. per bushel. He does not, or should not, expect as much per pound for a poorly fattened steer as for one of prime quality, and so on for all the articles which the farmer sells. Why then should he expect the same price for 100 lbs. milk capable of producing less than 9 lbs cheese, as is paid for 100 lbs. milk capable of producing 9¹/₂, 10, or 11 lbs. of cheese ? We think that the honest man will hardly expect to be paid 95 cents, \$1.00, or \$1.10 for 100 lbs, milk worth only 90 cents. We are now discussing the relative values of normal milk as given by the cow and not the relative values of milks which have been skimmed or watered.

Unfortunately there is some difference of opinion as to the best method of applying tests to ascertain the relative values of milk. Nearly all are agreed that the Babcock test is a reliable test for milk-fat, in the hands of a capable man or woman. It is too bad that carelessness on the part of some of those entrusted with the use of this test has in some cases caused a suspicion to arise in the minds of patrons. Personally, we should avor having all glassware for the Babcock test, officially stamped "correct", and require all operators to pass an examination as to competency, as is done in the State of Vermont.

There is also the question as to whether milk for cheese making should be paid for on the "straight fat test" or whether or not we should recognize that case in milk is also a valuable constituent for cheesemaking. We have never been able to agree with those who say that the fat of milk governs its value for both butter and cheese

(Continued on page 1078.)



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WINTER EGG PRODUCTION

Poultry keepers are everywhere complaining that their fowls this season are very late in commencing to lay. The cause of this may, in part perhaps, be attributable to the cold backward spring, but in most cases it arises from keeping too many old hens, lateness in the moult, pullets too young, and not feeding for egg production. Take the last cause first. How seldom it is that the ordinary poultry keeper will take the trouble to change the food or his manner of feeding it. The bird's requirements will change with the seasons, but the owner and his methods, never. Yet common sense should teach men to feed their birds according to the circumstances under which they are compelled to live.

Fowls in the winter require a heat producing diet such as sound good grain and some animal food ; the latter in moderation. The meat is necessary to replace insects which they were able to obtain during the summer months. If the pullets are sufficiently well developed and stimulating diet of this character is supplied them, they will usually lay early and continue to do so through the winter months.

Pullets to lay early in winter should be specially bred for that purpose. As a rule a pullet does not sufficiently mature to lay until she is at least six months old, but some forward strains will do better and it is no uncommon thing to have Plymouth Rock pullets hatched early in May laying early in November. When suitable conveniences are at hand, it may be well to produce a lew broods of chickens in April to ensure early winter layers, though in our climate these early chicks require more attention than the average farmer is disposed to give them.

It is useless to expect any old hen to start laying early in the winter, she will do so in her own good time, but it depends entirely upon when she gets over her moult. If she is kept laying steadily all through the summer and is not permitted to sit, she will moult late, and not lay again until spring when eggs are plentiful and cheap. If she is of value as a stock bird, this is all very well, but as a mere egg producer there is no profit in her.

Generally speaking, it will be found that pullets and hens in their second year will be the best winter egg producers, provided they have been brought into winter quarters in good condition.

A very good method of feeding for winter is to give a mixture of table refuse, meat scraps, bran and shorts in the morning. At noon throw a quantity of barley tailings amongst the litter provided for a scratching place, and at night give a liberal feed of whole corn, this with a plentiful supply of sharp grit and crushed oyster or fresh water mussel shells will keep the birds in good laying condition. Of course attention must be paid to cleanliness in the houses, and dusting places must be provided so that the fowls can keep themselves free from vermin.

of summer, mangolds, clover hay, or pea straw may be supplied, and if at any time cabbage leaves are available these should be given, as they are greatly relished. Birds treated in this way will

Birds treated in this way will give the maximum of profit at the minimum of cost and trouble, and this winter the farmer who has a flock of good laving hens has the prospect of making money out of the eggs they produce.

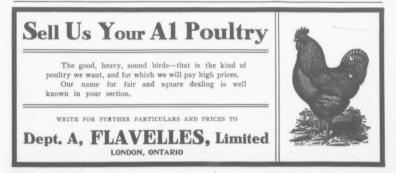
PREPARING POULTRY FOR MARKET

All poultry should be starved 24 hours before killing, so as to prevent any lood being left in the crop and intestines to decompose and spoil the flavor of the meat. Several hours after the last feed, give the chickens what water they wish to drink.

Chickens going into immediate consumption can be most conven-iently killed by dislocating the neck. With the left hand hold the legs with the jett hand noid the legs and wings in one firm grasp. Place the first finger of the right hand on the right side of the neck and the remaining fingers on the left side. Grasp the head in the hollow of the hand, with the fork of the fingers behind the head where it joins the neck. The back being upwards, hold the legs against left hip and the head near the right thigh or knee. Bend the head backwards as far as possible, and at the same time stretch the neck, when it is dislocated immediately : pull the head about 11/2 inches from the neck. Hold the wings firmly after killing, and allow the chickens head to hang down, so that the blood can collect in the neck; the head is attached to the body simply by the skin of the neck. Chickens for export or for cold storage must be killed by sticking in the mouth, cutting the large arteries at the side of the neck, just below the ears.

When the neck is dislocated, dry plucking should be commenced at once. While holding the chicken in the left hand, extract the tail feathers and the quill feathers of the wing. Allow the head to hang down and commence plucking the

As a substitute for the green food



feathers on the back and wings; then pluck the breast and lower part of the neck, and work back on the body to the tail, and turning the bird over again, finish the back and wings. Leave feathers on the neck for 3 inches from the head, and also a ring of feathers around the legs and back joints, and the small feathers on the outside joint of the wing. Clean pluck the rest of the chicken and have it as attractive as possible. If a tear is made have the flesh brought together with white thread.

Chickens fattened for market should be properly shaped. A good shape can be made by nailing two inch planed boards together at right angles so as to form a trough 6 inches, inside measurement. This can be made any length desired. Place the legs of the chicken along side its breast; then with the breast downward, force the chicken down to an angle of the shaper. Cover the chicken with paper, and place a brick on top to shape it also one against it to hold it in place until another chicken is placed close to it. Chickens should be allowed to remain in the shaper for six hours. After at least being thoroughly cooled, the chickens should be packed into shipping cases. Unless artifically cooled they should not be packed into the cases until 20 hours after killing. A case 20 x 16 x 4 inches will hold 12 chickens from 2% to 3 lbs. each ; larger sizes for larger weights. All chickens should be graded in size and packed in the case to suit. They are packed with their breasts up, but the case is so made that it opens with the chickens backs up. The heads of the first row of six are placed straight out on the bottom of the box, and the backs of the second row placed against these. The heads of the last row may be arranged in the centre of the case.

POULTRY EXCHANGE

CLARK'S. BUFF ORPINGTONS—National winners at Mations Bquare Gardens, New York, On four entries won 1st cock, 1st cockers!, at the beak of the start of the start of the start of the beak of the start of the start of the start of the beak of the start of the start of the start large silver curves and six special start of the observers, and used as the start of the start National, Torunto, I won 1st and 2nd cocks, 6th occurs and the start of the start of the observers and the start of the start of the observers of the start of the start of the start observers of the start of the start of the start observers of the start start of the start start of the start of the start of the start of the start start of the start

J. P. RYLEY, Lindsay, Ont.—Breeder of Barred Rocks, W Rocks, Buff Wyandottes and B. Minorcas.

STEPHEN OLIVER, Lindsay, Ont.-26 kinds of fowls-Hamburgs, W. Legborns, R. Caps. Houdans and, W.C.B. Polands.

DURST'S WHITE LEGHORNS-Bred for beauty and utility. Send for descriptive egg circular and mating list. A postal will bring it. DURST BROG. Benmiller, Ont.

HARVEY PERKINS, Oshawa, Ont., Buff Orpingtons (imp.), S. C. Brown Leghorns. Barred Rocks. Eggs for sale.

J. J. SACKETT, Lindsay, Ont -Breeder of White Leghorns, S.S. Hamburgs and Barred Rocks.

HORTICULTURE

STORING CABBAGES

The following methods of storing late cabbages are described in a recent bulletin by S. Fraser of the New York Cornell Experiment Station:

Method 1: One of the simplest ways is to store in an orchard or some sheltered place, olten alongside a fence which has been made tight by a liberal use of straw. The cabbages are stored with their stems on and are placed head down, and as close together as possible. Two or three tiers are often made, the heads of the second tier being placed between the stems of the lower, and so on, the piles being made of any width and leneth desired. The whole is covered with leaves, grass, hay, or straw and a little soil, rails, brush or litter. Small unsalable heads when stored in this way in November will comtinue to develop during winter and frequently sell as well as any in February.

Method 2: Small quantities may be stored by plowing out two or three furrows, ten or twelve inches deep, on a well-drained site, and placing the heads with their stems up as close together as possible. Some prefer to lay them but one or two thick, while others will plie them up two to two and a half leet high, bringing them to a point. The plie is then covered with straw, grass, hay, or a thin layer of straw, and then several inches of soil. They are stored before freezing, and when the soil covering them is frozen it may be covered with strawy manure or any other litter to keep the soil frozen until the cablages are needed for sale.

Method 3: Large quantities are stored in cabbage houses, this being



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the best way commercially for a large part of the State. The houses are often built alongside the railroad in order to facilitate shipment, but a small one can be built on the same principle if desired. The walls are frequently about eight feet high at the eaves, built with three walls and two air spaces, papered on the outside, with a close boarded and tar-papered rooi. The building may be fifty feet wide and of any desired length, with a driveway through the centre, and well provided with ventilating arrangements. The building is divid-ed into compartments or bins, which run across the house from the driveway to the wall, one on each side. These are five feet wide, made of slats on four-inch studd-ing. This permits of four-inch air space all round each bin, the end near the outside wall included. The floor of the bin is raised from the ground about ten inches, and is ground about ten inches, and is also made of slats, thus securing free circulation of air. When the bins are filled, the driveway may be filled if desired. The heads are cut close, practically ready for shipment, and are piled in the bins from the floor to the ceiling. The filles is desine in cut wanter of filling is done in cold weather, if possible, and care is required in ventilating to keep the temperature of the building as near 30 degrees to 35 degrees F. as possible, opening during cool nights and keeping it close on warm days or when cold snaps occur.

THE FUCHSIA

The idea seems to prevail among many people that the Fuchsia is a winter blooming house plant, and so they put their plants in their windows and give them a lot of attention, hoping for and expecting flowers, though they usually fail to get any. The fact is that with one or two exceptions the Fuchsia is strictly a summer bloomer. When one considers that this plant blooms steadily and profusely during about six months of the year, it will be understood that it is expecting too much to ask it to continue to do so through the winter as well. No plant could stand such a drain on its vital forces.

In order to obtain the most satisfactory specimens for summer flowering either as pot plants, or in the open border, Fuchsias should be allowed to rest during the winter months. They may be placed in a cellar in November or December. They may be placed in After allowing them to become somewhat dry at the roots, the foliage will then fall off and the plants become dormant. In this condition they should be allowed to remain until March, when they should be repotted and brought up to the light. As soon as they begin to throw out buds which show where the branches will be, they should be pruned so as to get them with certainty into desired form. After growth commences they must be liberally watered and protected from excessive heat. Treated in this way they will blossom con-

tinually through the summer and will repay the little care required to be bestowed upon them.

THE WORK OF POTATO IM-PROVEMENT *

During the past year very material progress has been made by way of perfecting our methods of potato improvement and in instituting their application throughout the country. At the last meeting of the Canadian Seed Growers' Association a very excellent paper on "Potato Improvement" was read by Mr. W. T. Macoun, Horticulturist, at the Central Experimental Farm. Upon the work which Mr. Macoun and many other authorities on the potato plant, both at home and abroad, have done, a system of potato improvement suitable for use among Canadian growers was drafted and was applied by several this year. The system



THE FUCHSIA

adopted is simple and practical, yet is founded on scientific principles, the individual plant being taken as the basis for improvement. The tubers produced by each plant are, morphologically considered, simply swollen portions of the vegetative and not of the reproductive system. The question has therefore been raised as to whether or not the principles of breeding which apply in the case of sexual reproduction through the seed, obtain in a sexual reproduction or perpetuation through parts of the vegetative system. Bud variation is, as a rule, more narrow than is seed variation, and some investigators claim that a part of any plant

* Extract from the last annual report of the Secretary of the Canadian Seed Growers' Association.

cannot possess qualities which differ materially from those of another part of the same plant. The best obtainable evidence at the present time does not support this view and the "individuality" of different parts is now generally recognized. Since the tubers produced by any single plant are all distinct parts of that plant the possibility of variation in the productive sapacity and in other qualities is recognized.

The system drafted for use by this Association enables the grower to plant the seed tubers taken from the different hills which were especially chosen for seed purposes the year previous, so that any promising variation which may result may be selected and used in endeavoring to build up a strong, healthy and productive type. Furthermore, in almost all parts of Canada, no matter how suitable may be the conditions, there are many adverse conditions with which the potato has to contend. Unfortunately man himself is often the worst enemy of the potato and unconsciously, though very materially, assists in its down-fall. The using of small potatoes from degenerate hills is perhaps one of the most glaring examples of this as far as the seed is concerned. The practising of improper cultural methods is another common error. Against these things, this plant is continually struggling year after year and while there is a continual survival of the fittest wherein a few plants succeed in rising above the prevailing difficulties in an endeavor to maintain the standard of the race, yet unfortunately these are quickly gathered in and hurried off to market, leaving the smaller, less desirable and often degenerate tubers remaining to be used for seed purposes. With such a system is there any wonder why many of our best varieties have suffered a rapid decline until they are now practically, worthless? What is needed among potato growers today is some practical system whereby it may be possible to select for seed purposes those hills which have shown themselves superior to others enjoying equal opportunities. In this way seed tubers which rank above the average would be chosen while those falling short would be ignored, hence making for an upward instead of a downward tendency. The need of just such an arrangement has been met by the Association in its system of potato improvement already referred to.

In undertaking systematic work according to this system it is recommended in the first place that a good standard variety be chosen and that the best possible seed of that variety with which to start be secured. The beginner is advised to test two or three leading varieties the first year in small plots side by side, to keep the hills separate when digging and, after having decided which variety has given the best results, to select and keep separate 25 of the best hills of this variety for planting in the breeding plot of the following year in accord-ance with the regulations as drafted. While the minimum size of the seed plot recognized by the Association is 1/4 acre, yet in the case of potatoes it was thought advisable to depart somewhat from this rule and to reduce the size of the plot to one of 25 rows. From each of the 25 chosen hills 8 of the most uniform, smooth, and sound tubers are then chosen and each set of 8 tubers so selected is used to plant one of the eighthilled rows, a single whole tuber being used to plant each hill. At harvest time each row is dug separately and the individual hills within the rows are likewise kept separate for examination. This arrangement per-mits the grower to determine This arrangement perfirst the best rows and secondly the best hills in these rows. The required number of specially desirable hills can then be laid away for planting on the plot the following spring as above indicated. Special blank forms are sent each grower in duplicate in order that he may re-cord certain information regarding the performance of each row referring especially to yield, quality and freedom from disease. While it is urged that the crop on the improved plot be sprayed for blight, yet the spraying of the breeding plot is left to the discretion of the individual grower. In districts where disease is troublesome the desirability of developing strains capable of withstanding these maladies is such that spraying is ignored and those plants which have shown the greatest power in resisting diseases, are chosen.

THE APIARY

THE SOURCES OF HONEY

White clover honev is the great staple. In quality, it is generally considered to exceed all others. Alsike clover exceeds white in yield and sweet clover is now considered an important honey plant.

Basswood also yields a white 'or very pale colored honey of a flavor which is highly esteemed, and in many cases classed as white clover honey. In rapidity of yield no other plant surpasses it, so that in some seasons, with a good range of basswood trees one may do fair-ly well with ten days of harvest even if no surplus is obtained from any other source. Buckwheat provides the chief supply of dark honey. In some localities it is quite reliable, regularly yielding a rich harvest, while in others it is capharvest, while in others it is cup-ricious, failing entirely in some seasons. The daily yield from buckwheat is only during the morning, and as it is not usually sown until July, it is purely an autumn honey plant.

Fruit tree bloom and dandelions are of more importance than is generally supposed, as they yield both pollen and honey, though it is a rare thing to obtain surplus from them, but they come early in the season and keep up brood-rearing in the hive, so that there will he lots of young bees ready for the white honey harvest. For the same reason the maples and differ-ent varieties of willows are valuable. In the autumn, asters and goldenrods are the chief yielders of nectar, though in some localities it is said the goldenrods are unreli-able, and probably the same thing may be said as to most other plants under certain atmospheric conditions.

Pollen, the fertilizing dust of flowers, is gathered in large quantities by the bees, and although generally little valued by the bee keeper, is indispensable to the bees. In the spring if all pollen has been removed from the hive, no brood will be found until a supply of pollen has been obtained from the early flowers, although neighbouring colonies may have started brood rearing in February or March. The nurse bees must have pollen from which to prepare the food that is fed to the young bees. When carrying pollen from flowers to the hive, bees pack it in the pollen baskets on their hind legs. Then it is stored in cells at the outer part of the space occupied by the cluster of bees. The color of pollen varies according to the flowers from which it is taken.

as yellow from dandelion and brown from white clover. It has been known for many years that when natural pollen was not obtainable, a fair substitute could be found for it in finely ground meal made from many kinds of grain, of which rye or oats are the ones most in use.

Besides honey and pollen, bees gather propolis or bee-glue, carrying it in their pollen baskets. As its name indicates, beeglue is of a sticky nature, and is used by the bees to glue up all cracks and corners, though sometimes it is varnished over a plain surface and even over the cappings of honey comb. It is never packed in cells, however, but is applied at once to the place wanted. There is some doubt as to just where the bees obtain this substance, the general opinion being, that it is gathered from the gummy and resinous buds of various trees, although it is certain that other material is utilized as well

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PROTECTION FOR OUT-DOOR HIVES

Bees that are to be wintered out of doors should have protection alforded at once. A very good method of doing this is to make outer cases of boards with a space of three to six inches, all around between it and the hive and fill in with chaft, shavings, dead leaves or similar material; in our southern districts this generally succeeds very well.

A new plan has recently been tried which so far appears to work very well, and may be of service to some of our bee-keepers who have not conveniences for cellar wintering. The method adopted is to remove the hive lids and in their place, plain flat covers are used that fit flush with the outside edges of the hive. Then several thicknesses of newspaper are folded and tied round the hive, extending down to within two inches of the bottom of it; over this a case is placed : with this protection the colonies are said to have wintered remarkably well.

Of course the entrance must be kept clear, and if there is danger from mice guard it with wire cloth, having three meshes to the inch.

By using the plain board cover over the top of the hive, space is left for the bees to go from one comb to another, and as the hive is warmest at the top they were able to do so very comfortably.

THE FENCE



HOW TO BUILD A GOOD FENCE Rescription interface for the short of and for our failer to Breath and the factor of the short of the shor

FORESTRY

THE VANISHING HARDWOODS

No one who is at all familiar with forests and their products needs to be reminded of the importance of having at hand an abundance of wood of various kinds or how much it contributes to the general welfare and happiness of a country. But there are those who have not paid much attention to this subject who claim and no doubt honestly believe that the great progress made of late years in the use of iron in place of wood in building houses, bridges, piers, ships, and other structures, are but indications of what is to follow, and that in a few years there will be no great demand for wood in any form.

The building of railroads, which reach almost every part of the country, has aided in the distribution of coal and made this in a great measure a more convenient and in many instances a cheaper fuel than wood, but in building these roads a vast quantity of wood has been used and that of the best kinds, not only for ties, of which about three thousand are put down per mile, but also for bridges and other great structures, in the building of which more or less timber is required. The railroads may have assisted very materially in checking the consumption of wood for fuel, but they have more than balanced the account in the amount used in their construction. Further, it must be remembered, that the ties must be re-newed every ten years; for the life of the best oak tie will scarcely exceed that period, and in the case of other woods it is a year or two less

The demand for railroad ties is not likely to decrease, for the railways have as yet failed entirely to develop a satisfactory substitute for the wooden tie and must in the opinion of their best engineers, continue to fail, although as the scarcity of timber is more felt, preserving processes will doubless be employed to arrest decay. Brick, cement and iron will also come into more "eneral use for buildings, but the increase in proportion will also tend to increase the demand for wood for other purposes besides that of buildings.

It is only a little more than a century since cole was first employed for smelting iron ores. The introduction of this fuel to take the place of charcoal, it was thought, would save the forests of the world from destruction by the charcoal burners, and while it has done much towards making it possible to produce sufficient iron to meet the great and constantly increasing demand, it has not superseded charcoal, and there is undoubtedly more charcoal used to day than at the time coke was first employed in a smelting furnace. Charcoal is still used in furnaces and forges and there are several establishments on this com-

tinent which use over a million of bushels each annually, and a score of others that consume from twenty to twenty-five thousand bushels.

Notwithstanding the number of substitutes that are employed, the demand and consumption of wood appears to increase, and to-day there is probably more wood used in making boxes of various kinds than there was in the construction of buildings of all kinds in this country seventy-five years ago. Furthermore, no kind or quality of timber appears to escape the in-satiate artisan of the period, for he not only finds ready uses for the large and small, the hardest, toughest and most durable, but also for the soft and spongy, the latter being used for grinding up into pulpwood.

Not a year passes during which scores of new devices and inventions of new articles of manufacture are not brought forward, which are made wholly or in part of wood, and while singly these may not require a great quantity they do in the aggregate use up a vast amount.

A general review of the situation shows that the output of hardwoods in 1906 had decreased over fifteen per cent, and that this decrease is due to diminished supply and not to any lessened demand, lor at the same period, the wholesale price of the various classes of hardwood lumber had advanced from twenty-five to sixty-five per cent: every kind of hardwood found in quantity sufficient to make it useful has been put upon the market, and hardwood lumber is now being cut in every locality from which it can be obtained. These conditions would not prevail were the decrease in the production due to a falling off in demand.

How intensely the whole country would icel the loss of the hardwood supply, to which we have been so long accustomed, can scarcely be realized. Without hardwood for building purposes, for railroad ties, for the manufacture of furniture, cooperage and vehicles and the varied other uses to which it is put our industries would be largely paralyzed. A general failure in crops may affect industrial conditions for a few years, but a failure in the hardwood supply would be a blight upon our industries through more than a generation.

Hardwood lumber manufacture affords an example of the damage already done. A few years ago this industry was carried on generally throughout the province and afforded employment to a large number of men in the rural districts, but as the local supply of hardwood ceased, the industry stopped, and the employees dritted away into other occupations. So also with the cooperage industry, in slack cooperage a great quantity of hardwood's were used, but as the local supplies diminished the industries have had to close down,

and the consequent shortage of barrels is often the cause of serious inconvenience. In tight cooperage the best grades of white oak are used almost entirely and the failure of a supply of timber is now affecting this industry. If the oak supply should fail, tight barrel making will cease and some other vessel for containing liquids must be found, but as yet, little has been done in devising substitutes for the oak cask.

In the manufacture of furniture and musical instruments, especially pianos and organs, many hands are employed, and it is now a very important industry, requiring prob-ably more hardwood than any other we have. Already the scant supply of hardwood is affecting the quality of the output, for we find the better class of lumber, such as was formerly used, replaced by inferior stuff which is veneered with some foreign wood to keep up appearances. Failure of the hard-wood supply would terminate the furniture business and strike a blow at our commercial prosperity from which we shall not easily recover.

Metal has to some extent taken the place of wood in the manufacture of farm implements and vebicles, but surprisingly large quantities of the very best hardwood is still required, and these are even now obtained with extreme difficulty. Hickory and oak are used in the largest quantities, and vehicle manufacturers believe that the hickory supply of the whole continent can not last more than ten years longer. Attempts to substitute other woods or materials for hickory in vehicle making have largely failed, so the industry is confronted with a serious difficulty which, however, can be in part relieved by prompt action.

It is scarcely necessary to refer in detail to the many other industries and interests which will be either seriously affected or destroyed as our hardwoods vanish, a few moments' thought on the part of any man who knows our country will enable him to extend the list indefinitely.

The inevitable conclusion to be drawn from the fact that our hardwood supply is vanishing is that there are hard times close ahead for the industries dependent upon it. There is sure to be a gap between the supply which exists and the supply which will have to be provided. How large that gap will be depends upon how soon and how effectively we begin to make provision for the future. The present indications are that in spite of the best we can do there will be a shortage running through at least fifteen years. How acute that shortage may become and how serious a check it will put upon the industries concerned can not now be foretold. That it will strike at the very foundation of some of the country's most important industries is unquestionable. This much is true beyond doubt, that we are dangerously near a hardwood famine, and are making no provision against it.

Nature About the Farm By C. W. Nash.

THE DUSKY GROUSE

Two varieties of the Dusky Grouse known as the Sooty Grouse and Richardson's Grouse, are found in abundance in British Columbia, where it takes the place in the Western sportsman's heart of the Ruffed Grouse, so highly appreciated in the Eastern Provinces.

This grand species is, with the single exception of the sage cock, the largest and at the same time one of the finest of American Grouse. It delights in dense elevated forests ranging upwards from about two thousand feet to the timber line. Among the Western sportsmen it is often called the "blue" or "gray" grouse, and those who have enjoyed the pleasure of shooting and later eating it, have yet to be heard from by way of adverse criticism. Its sole fault as a game bird consists in its being seldom found in a cover which af fords a fair chance to the gun. In fact, it is such an inveterate lover of trees that it takes to the branches as a duck takes to water. Like the Ruffed Grouse, it will tree and remain motionless until it fancies it has been observed ; then it at once departs with a sounding rush, which may only be stopped by the quickest of skilled shots.

Only those familiar with Western covert can understand how easy it is to fail to bag at short range a bird about as large as a common barnyard hen, that is to say one weighing between three and three and a half pounds. The greenhorn would imagine such a bird rising close at hand to be an easy, perhaps too easy, mark, but let him climb the steeps and try a few shots at blue gronse as they leave the trees, and his remarks would probably be slightly suggestive of blasted hopes and trust betrayed.

This grouse is very difficult to see even when perched upon a limb only a few yards away. In its native woods the light is uncertain, and there is a confusion of shade amid which the general slaty tone of the plumage is barely distin-guished. A coat of feathers specially designed with a view to protective coloration, could not better serve the purpose, and the bird appears to be perfectly well aware of this. Indeed, its habit of trusting to its trick of treeing and remaining motionless has earned for it the name of "fool-grouse," which should, however, only be applied to young birds or those whose haunts are far removed from men. These unquestionably will tree, and stupidly maintain their positions while their associates are being shot or even clubbed down, but old birds in districts where they are pursued become wiser and like the Ruffed Grouse of Eastern Canada, profit by their education.

But fool-grouse or no, when once the bird concludes to start, there is no more foolishness. With a loud whirr it promptly gets to top speed, and usually darts downhill, a manoeuvre which greatly adds to the difficulty of a shot. When taking wing it cackles like a scared foul.

In spite of the bird's fondness for thick covert and large timber, it is occasionally found in the open and in grain fields. In such places the sportsman may enjoy "the grouse" shooting to perfection, and then the full strength and speed of the game becomes apparent.

The love-making of the male is marked by all the pomp and vanity so noticeable in the grouse family. It is his habit to perch on some tree or rock, and by filling the sacs upon his neck with air and abruptly expelling it to protion, alights on a tree, quite as if she had no family to be looked after. Moving her head from side to side and looking at the disturber of her peace, with first one eye then the other, she will remain crouching upon the limb just overhead with apparent apathy, or what passes for stupidity, but what may be the most intelligent selfsacrifice on behalf of her brood. Molest her and she flies off rapidly with a loud cackle of alarm.

The nest is a mere depression in the ground usually near an old log, it is lined with fine grass, pine needles or dead leaves. In this from eight to ten creamy bull eggs, dotted, spotted, and sometimes blotched with brown, are deposited.

The nesting begins about the middle of May, though dates differ with the severity of the season and the altitude, and the young, which run as soon as they are hatched, are brought off after twenty-one



DUSKY GROUSE

duce a low booming which has estraordinary carrying and ventriloquial power. This booming seldom lails to puzzle those hearing it for the first time, the balling leature of it being that it does not appear to gain volume or distinctness when the bird is closely approached. Even an old hunter cannot often tell how far distant from him a booming grouse may be.

Solitary for the greater part of the year, or found in parties of three or four adults at most, it is chielly while the young are dependent on the mother, that one meets a party of from seven to ten feeding on berries, leaves, and insects, especially grasshoppers, which form their summer fare.

Only early in the summer, while the young are unable to fly into the branches, do these tree-loving mountaineers roost on the ground. Approach a brood suddenly, and the beautiful downy, nimble footed chicks, which are by no means fools, scatter and hide among the bushes and under leaves, while the mother flying in an opposite direcdays' incubation. Only one brood is raised in the season.

In the winter the grouse feed chiefly upon the buds of trees and scales and seeds of pine cones. Heavy snowfalls send them to roost in the everyreens where their dusky plumage blends so perfectly with their surroundings as to render them almost invisible.

It is somewhat doubtful if the typical form of the Dusky Grouse occurs in Canada, though as it is found in Montana and Idaho it may cross our boundary, but the variety known as the Sooty Grouse is found abundantly on the western slope of the Coast Range in British Columbia and also on Vancouver Island. East of the Coast Range, including the Rocky Mountain districts and in the interior of British Columbia and east to the eastern foothills of the Rocky Mountains in Alberta the form known as Richardson's Grouse is a common resident. This variety has also been reported at Sault Ste. Marie in Ontario, where it was probably only an accidental visitor.



I care not, Fortune, what you me deny You cannot rob me of free Nature's grace. You cannot shut the windows of the sky Through which Aurora shows her brightening face. You cannot bar my constant feet to trace The woods, the lawns, the living streams, -Thompson

sure to her eyes. "His wife has him in training, '

"Mis wife has him in training," said Walter, with a laugh. "He wats on her like a lady's maid." "He'll get over that," remarked Belle, the oldest daughter, with an expressive shrug of her shoulders. "The Stanly spots are hard to charge." change."

erence which brought tears of plea-

"I hope he won't," his mother said slowly. She looked over at father Stanly's chair, remembering 'ow, years ago, he had taken her, a bride, to visit his people.

How proud and fond he had been then, how ready to notice and respond to every word or wish of hers.

But the Stanly spots were hidden beneath the surface, and came out one by one as time went on, until he was clear Stanly ever inch of him ; "A chip off the old block," as those said who knew the Stanlys well

Those keen, bright eyes of John's wife saw a great deal in the next few days.

She saw how the mother, ever pabies and willing was an uncom-plaining slave for all of them, her tasks never done until all were in bed. No one thought of locking the doors at night; mother always did that. If the young people were out of an evening, mother sat up to let them in. The girls took their heavy nap in the morning, quite confident that mother would be up in the early hours, with fires made and dreakfast ready when they came down The boys went out after breakfast to the field, without a care in re-spect to wood and water Mother

spect to wood and water Mother was an adept in cutting kindling, and the old oaken bucket was a poetical willing she should have the full bene-fit of. At breakfast she poured coffee, ber empty plate doing duty as server. and took what was left of the cooled and took what was left of the gooled food alterward; and she had acquired such a habit of jumping up from the table to wait upon hersell and others that she did it unconsciously. "Mother, I do wish you'd let me

"Mother, I do wish you'd let me pars you the bread," said John in a vexed tone the third morning of his stav. "The idea of your getting up and travelling around the table for a slice of hread, as if we were all heathens!"

heathens!" "Did I, John ?" The mother's eyes opened widely. "The sure I didn' notice what I was doing, then." "Mother has waited on hersell so long, she is in agony if anyone at-tempts to relieve her." remarked Martha, the second daughter, with a blush, for Mildred's keen, reproachful eyes were upon her.

There were merry-makings and pic-nics in the days that followed. Com-pany came and went, and Mildred

We're Growin' Auld Thegither

We're growin' auld thegither, Jean 1 Our weans are weans nae mair ; The light that danced in our young cen Is dimmed wi' age and care. But, Jeanie, there's a licht aboon Grows brichter ilka day, And safter than a simmer's mune Mak's sunshine a' the way—

The way to rest and hame, Jean ! Life's darg* we've warstled through, The arlins** lang we've haen, Jean, The fu' reward's in view. There simmer kens nae weariness There winter feels nae cauld, And there the firstlins o' our flock Are safe inside the fauld.

Ye mind yon dowie day, Jean ! Aneath the Kirkyaird snaw, 'i' rackit hearts and soomin een, We laid our nestlins twa; Wi

Our sonsie lassie in her teens,

Sae ready for the ca', The sweet wee flowrie at yer briest, The bonniest o' them a'.

Life's no a' cares and tears, Jean ! Our withered cheeks hae pressed The sunny locks o' bairns' bairns That socht our parent nest And when their gowden locks are gray

Wi' toil and time and cares, And bairns o' theirs in far-aff lands Are blest through grannie's prayers.

we'll them be young again, Jean 1 And Heaven be doobly blest, As bairns' bairns and bairns' bairns Come hame at e'en to rest. The blessins o' His covenant Are theirs and ours forever ; "Tae you, and yours, and a' their seed." We'll then he young again, Jean !

His Word's a fail-me-never.

* Darg-allotted task. ** Arlinsarles-carnest money.

4

The Stanly Spots

John Stanly and his wife were ming home to visit. It was an coming event of importance, for John was the

event of importance, for John was the oldest, and the only married son. His wife the family had never seen, as John had won and wedded her in a distant town. They might not have come now, John said in his letter, except that Mildred was not feeling quite well, and he thought the country air would do her good.

His mother breathed just the least bit of an inward sigh as she read the sentence. The selfishness of her children, silent or expressed, caused her many an inward sigh. If John had said instead that he was so anxious to show the wife he had won to the mother whom he loved, that he could stay away no longer, she would have been beside herself with happiness, been deside herself with nappness, but, bless the man, he never thought of saying so, though the feeling was in his heart, undefined and unexpress-ed. Such a halo of interest centered around "John's wife," that it is no wonder the family were disappointed when she arrived. She had looked so beautiful in John's eyes, that he had unconsciously magnified every charm in his descriptions of her.

His brothers and sisters saw only a fair, gentle woman, whose uncom-monly bright eyes were her distin-guishing feature. John himself was not quite as they had expected to see

"John's politer than he used to be," said his mother, after the pair, weary with their long journey, had gone upstairs at an early bed-time.

He had risen and opened a door for her during the evening, and had in the room for her use, acts of def-



YOUNG CANADA

1.

noticed with pain how the mother's place seemed ever to be in the kitchen. She urged her to go with them on one occasion when an excursion had been planned, but there were a dozen reasons why she could not go.

The milk cans to wash, pa's coat to mend, the sitting hens to attend to; the girls had never been used to attending those little things which were

so necessary, she explained. "Well, mother Stanly, 1 give you fair warning," said Mildred, shaking her linger at her as they were about to drive off, "you are going on an excursion presently, one which will be worth while, and no excuses will avail you, so get your 'little things all attended to

Two weeks later the Stanlys looked at each other in lonely bewilderment John and Mildred were gone and the mother with them, and the house

ned strangely empty and forlorn. They hardly knew how it had been accomplished when she had been so determined that she could not go, but Mildred was equally determined, and in spite of all her "buts," mother Stanly's old trunk went to the sta-tion with theirs, and she, of neces-

sity, followed it. "I do hope Linda won't forget to put down the pantry window," she said as evening came on, and the passengers on the flying train began to make preparations for spending the night.

night. She had worried all day, first about Moolie's new calf, then she had for-gotten to tell pa which closet his new boots were in; a score of little things occurring to her restless fancy

which she had left undone. "If those great boys and girls had been babes in arms, mother need not have had more care of them," Mil-dred told John, indignantly. "It is high time they were left to themselves awhile.

Linda did leave the pantry window open, and a predatory cat came in and ate up all the cream she had saved for the morning coffee, in addition to other dainties.

Martha forgot to mix the chickenfeed until the tender broods were nearly starved, and Mr. Stanly, Senior, was as helpless as a child in the matter of wardrobe.

The boys caught themselves saying "Ma, where's my-" a dozen times a day, until it dawned on them at last what a very useful luxury a mother was in the house.

"I had no idea we should miss her o," said Belle, as she wrestled with 80.1 a batch of sour bread. Mother had always taken the bread-making as one of her "chores."

"I've been thinking, girls, what wretched way we've got into of al-lowing mother to wait on us and take all the care, as if we were still infants, and I've about concluded that the Stanly spots are out on all of us as thick as measles." "Well, I hope to goodness they won't strike in," remarked Martha,

dryl

"Mother should never have allowed us to grow into such heedless, selfish ways," said Linda, "but since we are is to grow into such heedless, selfish ways," said Linda, "but since we are in, and are all of us old enough to see the folly and the shame of it, I move that we get out of them as Mother Steel."

Mother Stanly spent six ideal weeks John's home. in

Mildred was an ideal hostess, and without making her entertainment a burden, she contrived that the care-worn little mother should meet more pleasant people, read more entertain-

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ing books and see more of life generally than she had seen in years. "Mother is actually growing

ung," John said to Mildred one

day. 'Ves, and I cannot bear to think of her going back to her treadmill of care,'' Mildred replied earnestly. ''A care," Mildred replied earnestly, "A woman who has brought up a lamily like yours, of sons and daughters, has done a lifework, and deserves rest. I wonder your brothers and aisters do not see it." "Why wonder, Milly, when I, my-elf, was ablind as the test until yeal, was ab blind as the test until yeals from my uyes 7. We were simply never taimed to think of mothers.

ply never trained to think of mother, and she never asserted her claims to consideration.

A few weeks later the Stanly home

A new weeks later the Stanly home was dressed in lestive attire. "Mother is coming," seemed to be in the very air. The best china and silver gleamed on the tea-table, which Linda was setting, and a bouquet of her favorite mignonette and peas stood by the mother's plate.

"I really wonder if mother will notice the changes we have made," Linda mused as she stood back and surveyed her work critically. In reality, the greatest change of all was in herself, as she stood there seli-reliant and thoughtful, as contrasted with the forgetful, heedless girl her mother had left. Her newly acquired mantle of thoughtfulness and care was very becoming to her.

There was one corner in the house which every one in the family had looked into during the day, the guest chamber as Belle had named it, mother is going to be our honored guest in future, rather than our pa-tient burden-bearer."

Such a homelike, restful place as it Such a nomence, restuit place as it was, with a fat, pillowy lounge to lie down upon, an old-fashioned, roomy rocker, and a shelf full of books which she had longed to read, but never could find time for.

but never could find time for. The sale of one fat heiter, which father Stanly would never miss from his herd, had accomplished all that was needed to make it a cheerful, tasteful spot, but the credit of the idea itself belonged to John.

At Mildred's instigation he had written a long letter home when the time drew near that his mother must return, and he had spoken some very plain truths and suggested some desirable reforms in the home government.

Not one of the family had taken offence at John's plain speaking, as they would have done had the same truths been spoken before the mother's

Even Mr. Stanly, his habits crystallized by long usage, had partaken of the family awakening. "It's hard teaching an old dog new tricks," he said ruefully, when Felle

"Mother is spry enough vet-too spry for her own good," interposed Martha

"Well, she was light as a feather n her feet then," continued Mr. on her Stanly, "and as for looks, there can't one of you girls come a-nigh her.'

"Handsome is that handsome does," quoted Linda. "I think we shall all be better looking when we get a few of these Stanly spots rubbed off," she said in an aside whisper to Martha.



(Devoted to Canadian Country Life)

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There was a rush for the door when Mr. Stanly drove up with the little mother in the new phaeton which he had purchased for her especial use.

If she had cherished any doubts as to her place in the hearts of her children, they must have been dispelled by the warmth of the welcome she received.

"It does seem good to get home again," she said, as she smelled her mignonette and surveyed the glittering tea-table with some surprise. "Not but what I enjoy visitin," and nobody could make a visit pleasanter than Mildred does, but there's no place like home after all."

"Well, I can tell you something we've found out," exclaimed Walter, gladly. "Home isn't a home with-out mother in it. The girls do well enough, I admit, but they can't fill mother's place.'

"Well, I suppose the mendin' is all t sixes and sevens," she said. 'It at sixes and did seem sometimes as if I should fly at Mildred's, a-thinkin' how much might be doin' at home. I knew the work'd come tough on the girls, and that they would not have time to

keep up the little things. You'd bet-ter bring out all the patchin' and I'll set to to morrow. I feel some tired to-night. Them cars do shake one up so

Walter laughed, but with the laughter there was a shade of pain.

"The patching can wait, mother," he said, dryly. "I think we can af-ford you a day's rest, at least, in your own house

When John and Mildred next came home it was a changed place

home it was a changed place. Instead of the young people mono-polizing all the pleasures of the visit while the mother shouldered its cares, a stout woman took her place in pantry and kitchen, while she and Mildred took long drives together in The easy phaeton, and the girls sup-erintended matters at home. "How delightful it seems to have mother join us in our pleasures,"

mother join us in our pleasures," said Mildred one night after they had

said Mildred one night after they had returned from a day's fishing, sun-burnt and weary, but happy. "Yes," replied John. "The Stanly spots are about eradicated, I am happy to see; may they ever remain so."—Mrs, F. M. Howard, in the Ladies' World.

THE BOYS AND GIRLS

A Children's Song by Kipling

Father in heaven who lovest all, O help Thy children when they call ; That they may build from age to age An undefiled heritage.

Teach us to rule ourselves alway Controlled and cleanly night and day: That we may bring, if need arise, No maimed or worthless sacrifice.

Teach us to look, in all our ends, On Thee for judge, and not our friends That we, with Thee, may walk uncowed

By fear or favor of the crowd.

Teach us the Strength that cannot seek.

By deed or thought, to hurt the weak: That, under Thee, we may possess Man's strength to comfort man's

Teach us Delight in simple things. And Mirth that has no bitter springs; Forgiveness free of evil done, And love to all men 'neath the sun !

-From Puck of Pook's Hill.



Salmon by the Thousands

Last time I wrote you about the whales I saw. This time it will be a



Lifting the salmon from the fish traps into be at Sooke near Victoria, B.C. 60,000 fish were taken that one day in Sept. 1907 boats

fish story, but it will be equally

I wish all the boys who read The Farming World, and who are fond of fishing, could have stood with me beside one of the many British Columbia rivers and have watched the fish. Talk about them being big and many! Well, I should say so! The water was shallow at the point where I stood, and just seemed thick with salmon. They were from 18 to 24 inches long, and would dart up the You ask, stream at a great speed. Why were such large fish there They were there to spawn-that is, to lay their eggs. It seems a very strange thing, but it is said no mat-ter to what waters a fish may wander, it will always come back to the spot where it was hatched to spawn. These large fish will travel from the sea, hundreds of miles up a river, and often a fearfully hard time of it. In dry seasons the water may be so shallow they will have to leap from pool to pool. Sometimes a waterfall may be in the way, but their determination is so great that they have been known to get above the fall with a run and a jump, to the height of ten feet. They become battered and bruised and exhausted. It is pathetic to think that after all their struggle, after they spawn they Just now may be seen, floating in the rivers or strewing the banks, hundreds upon hundreds of dead fish.

The eggs after being laid are covered over with sand or gravel by the mother fish and in due time hatch out. The following season these tiny fish, about an inch and a half long, make their way down the rivers the rivers many miles to the sea, and there are lost sight of for four years. Some claim they travel to Japan and back, but one thing is known, they do not come to British Columbia again antil they are full grown, which takes four years, then they instinctively seek their birthplace to spawn and

It is when these returning fish an pear on the coast line and in the river mouths that they are caught in

15 November, 1907.



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IT SAVES FOR YOU Come at once and see the Washer and get one of our booklets telling how to abolish wash-day troubles If you cannot call, write me for the book. I will gladly send it to you.

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F. W. M. BACH, Mgr. of 1900 Washer Co. 355 Yonge St., Toronto, Ont. 627

such large numbers and taken to the fish canneries and put up in tins, which we buy as canned salmon.

The photograph which I got at Sooke will give some idea of the great number of fish taken and the mode of catching them.

Long posts are driven into the water bed and attached to them is the system of network which forms the trap. The fish get into this en-closure and cannot find their way out. The photo shows the men lift-ing the nets and emptying the salmon into the boats to be taken to the canneries. Salmon catching and canning is one of the big industries of British Columbia.

L. ROSE.

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Imported Fruits CURRANTS AND RAISINS

Currants derive their name from the city of Corinth in Greece. At the city of Corinth in Greece. At first they were called Raisins de Corinth. They are a small kind of raisin-the red or blue fruit of a grape vine. These small grapes are seedless, have a very thin skin and are very sweet.

When the grapes are ripe they are spread out in layers about half an inch thick and are turned frequently till dry. During the drying process they fall from the stems. When quite dry they are put through a process to remove the stems and are then

THE FARMING WORLD.



NEARLY READY FOR RAISINS.

tightly packed in barrels and export-Currants are one of the chief ex-

ports of Greece. Raisins are grown abundantly in Southern Europe and lately have been successfully cultivated in California. Raisins are dried grapes, they are rich in sugar and constitute a very nuttives and acceptable article of nuttives and acceptable matching form a very deliving and matching form a very delicious and nourishing des-sert. They are extensively used in cooking and in the manufacture of different kinds of wine. The grapes intended for raisins are

dried on the vine or spread on the ground in the sunshine. Only in very unlavorable weather is artificial heat needed. The best varieties and bunches intended for table use are handled carefully, are sometimes dipped in water with olive oil on its surface or in a strong potash lve. This softens the skin and gives the fruit a glossy appearance.

Malaga raisins are a large blue variety used especially for dessert. Then there are the ordinary cooking varieties and the Sultanas, a small, light-brown seedless variety with a

*

The Manly Habit

"I've heard a good deal in my time about the foolishness of hens, but but when it comes to right-down, plumb foolishness, give me a rooster every time. He's always strutting and stretching and crowing and bragging about things with which he had nothing to do. When the sun rises, you'd think he was making all the light, instead of all the noise; when



POPULAR CANADIAN PARCEL 5 pairs Lace \$6.30 postage free. (White or Ecru.)

Contains: Contains:-2 pairs superb Diningroom Cur-tains, 3 yds. long, 60 ins. wide. 1 pair exquisite Drawingroom Curtains, 4 yds.

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 Park robules University of the second second

ice Lists may be obtained at the office of this Paper SAML. PEACH & SONS, The Looms, Box 66A NOTTINGHAM, Eng. Est. 1857

53 a Day Sure Source and the your address for the backback and the set of the of \$3 for every day's work, absolutely sure, write at once. PERIAL SILVERWARE CO., Bot SCIE, WINDEDR, OFE.

Big Money in Mounting Birds

The man or woman who know the pr feedon of tastlermy is in hig demand the by skilled tastlermy is in this concer in those who can do really goed work are at ply swamped with orders from one end of i year to the ot er. These tas



mens and these a mounts are paid willingly by men who want this work done. There is a great field in

done. There is a great field in the profession for all a great field in the duceness is assured to all add women. Beeddes it is a most face-inating art that make turned to strictly private mass, being the strictly private mass of the strictly private strictly strictly make the strictly strin



the farmer's wife throws the scraps in the hen yard, he crows as if he was the provider for the whole farmyard and was asking a blessing on the food: when he meets another rooster, he crows; and when the other rooster licks him, he crows; and so he keeps it up straight through the he keeps it up straight through the day. He even wakes up during the night and crows a little on general principles. But when you hear from a hen, she's laid an egg, and she don't make a great deal of noise about it, either."

Sayings of the Little Folks

Fred-What time do you wind up Sport, father ?

Papa-What do you mean, Freddie ? How can I wind up a dog ? Freddie-Why, papa, I thought you said he was a watch dog.

Harry, seven years old, came home from school the other day and rushed non school the other day and rushed into his mother's room with the news, "Mother, what do you think ? We're going to have physical torture twice a week now !"-Judge.

YOUR LUNGS

ARE THEY WEAK OR PAINFUL Do you spit yellow and black matter?

Are you continually coughing and hawking? Do you have night sweats?

Do your lungs ever bleed?

Have you pains in chest and sides?

Do you have pains under your shoulder blades?

THESE ARE REGARDED SYMP-TOMS OF LUNG TROUBLE AND CONSUMPTION

You should take immediate steps to check the prop of these symptoms. The longer you allow them to vance and develop, the more deep scated and set your condition becomes.

We Stand Ready To Prove To You We status field to reveal the status of the

Here Is Evidence From One Case

ere is Evidence From One Cas. Under date of Mar. 11. 10%, William schmidt. 1980 Coleman St., 81. Jonis, Mo., writes: "It is sumption was made complete by your Lang-Gernine, and I am happy to say that I remain a swell and storego Idoly as the day I was curd-swell and storego Idoly as the day I was curd-markable cures, also a FIREF THAL of Lung-te-ine, together with our new book on the treatment d eave of Consumption and Lang Trubile.

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You Pay No Duty Lung-Germine Co. 28 Rae Bik., Jackson, Mich.

Health in the Home

Sleep

One of the strangest things in life is sleep-that recurring period of unconsciousness, so like death, yet without which the continuance of life is impossible.

We think of it as a time of perfect rest for all the organs, yet it is really one of great activity in the body. The scavengers are then lard at work removing the broken-down cells and the poisonous waste prod-ucts, and the building up of new cells goes on apace. The damaged nerves and muscles are patched up and repaired so well as sometimes to be even larger and better than they were

This work goes on all the time, but chiefly during sleep, for then there is an arrest in the destruction of the body tissues, and the recon-structor forces can work to better advantage.

What causes sleep, why we should lose consciousness, and why and how we ever come back again to conscious existence are puzzles of which the physiologists and the metaphysicians have long sought a solution, but have not yet discovered it.

It is believed that during healthy sleep the brain is almost bloodless. or at least that it contains less blood than during the waking hours. We know that sleep comes with difficulty to one in a state of mental excite-ment, when the brain is filled with blood, and the arteries in the temples stand out full and pulsating. It is on this supposition that most of our endeavors to woo the drowsy god are based.

We should do no severe mental labor in the evening, but if we are forced to write or study at night, we should always and absolutely put aside our work at least an hour before bed-time, and spend this time in easy conversation, in light reading, or in playing a quiet game of some sort. A simple, amusing game is one of the best of means to pull the mind away from the absorbing thoughts which have possessed it, and to cause an equalization of the blood circulation throughout the body

An apple or a cracker and a glass of milk may be taken a few minutes before bedtime with the effect of drawing the blood to the stomach, but a hearty meal at this time may prevent sleep by exciting the diges-tive processes to disturbing activity.

An abundance of fresh air in the sleeping apartment is a necessity to sound and really refreshing sleep.

The amount of sleep which is needed is different with different individuals, and depends somewhat upon the activity of the reconstructive powers. For the average adult seven hours should be enough, but children uced ten, and the very aged all they can get.

When a child runs indoors crying with cold fingers, it usually rushes to the fire holding its hands down to the heat. If this order were reversed and the hands held with the fingers pointing upward for a few minutes, there would be no painful sensations as the fingers grew warm. The rea-son is, when the fingers are held down, the blood rushes into them, but when they are pointed upward, the circulation being more gradual no pain is felt.



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THE FARMING WORLD.

Steamed Eggs

Place in the centre of a rather deep

IN THE KITCHEN

An excellent article of food, wholesome and nutritious, is common wheat cleaned and washed. Let it be soaked in warm water, and when the grains have softened and swollen, boil slowly until soft enough to be eaten with milk or sugar or syrup, according to the taste; it may be salted a little; if any is left over, it may be cut in thin slices and then fried like mush.

It is well known among physiolo-gists, that the teeth and bones are durable and strong in proportion as they contain one of the chemical constituents of lime, and that the food which contains these constituents in which contains these constituents in large quantities is best adapted to the formation of good teeth and strong limbs. In the item of bread, used in every family, a striking fact is exhibited : in 500 pounds of the finest family flour for table-use there are thirty pounds of these bone-formare thirty pounds of these bone-form-ing elements; in an equal amount of bread made of wheat, or prepared as above, there are eighty-five pounds of the bone and tooth-forming princi-ples. Hence it is not to be wondered at, that the Scotch are the thriftiest and hardiest race in the world, for they luxuriate on their dearly beloved oatmeal gruel, bread and cakes, three times a day. The whole grain of Indian corn or wheat prepared as re-commended does not fatten as much commended does not tatten as much as fine flour, the latter having twice the amount of fat-forming principle; but fat is not strength; it does not give endurance, toughness, hardness, or capability for work: the whole grain of the Indian wheat, rye, oats, does, and from five to fifteen, chil-dren should be compelled to make one daily meal, wholly, of one of these grains, prepared as above.

Bread Economy

Bread loses none of its rich food

stream loses none of its rich food values by having become unsightly in form for the table bread-plate. I never throw away a single bit of good, sweet bread. As to sour bread, there is no place for it in the diet of any human being. Nothing can make it fit for use.

Small bits, even crumbs from the cutting board, should be collected from meal to meal, then placed in a biscuit pan and set in the oven soon after a baking of loaves has been removed. There still remains enough heat to thoroughly dry without danger of burning the crumbs, and they then should be crushed fine under the roll-

ing pin and kept in a close jar to use for croquets, fried fish, etc. Crusts and other tough picces can be used in many ways by first soak-ing in cold water. .

Use a small five-cent scrubbing brush for cleaning vegetables and graters, for scouring paint, the kitch-en sink and the nickle trimmings on the range, etc. Keep several for dif-forest terment. ferent purposes.

DR. W. A. McFALL Special attention given to the treatment of rheumatism, by correspondence.

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Place in the centre of a rather deep plate a tablesponful of good butter, break carefully into the plate six or eight fresh eggs, sait and pepper to taste and steam over boiling water about seven minutes. Serve hot. COUNTRY GIRL. .

First Prize Buns

One egg broken into a cup, beat un-til light, fill cup up with warm water. Add another cup of lukewarm water, one half cup each of brown sugar and butter, one cup of yeast or a yeast cake, a little nuture, floor enough to mix into a still batter. Let rise until light, then knead down and embed and the still batter. and make into about eighteen buns A. A. L.

Fruit Cookies

Two eggs, one cup each of sugar, currants, one teasp soda, one teaspoon cream of tartar. 2 teaspoons cinnamon, one cup sour 2 teaspoons cinnamon, one cup your cream or milk, flour to make a soft dough. Beat the eggs. Cream the sugar and butter together, then add the beaten eggs. Slit the cream of tattar, soda and cinnamon in some flour, then mix the currants in the flour, then mix the currants in the flour mixture and beform a truty of the flour mixture. Mix all lightly.

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A. A. J.

Hannah discovered recently that a cake of Bon Ami is a capital thing to clean windows. Follow the directo clean windows. Follow the direc-tions and you will have little trouble and bright, clear window panes.

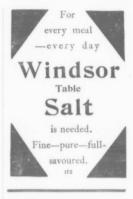
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Hanging Mirrors

Never hang a mirror where the sun's rays will strike upon it. They act upon the mercury and cloud the glass.

- 44

Remove fly specks from paint by rubbing with a very wet cloth dip-ped in baking soda, letting it remain on for ten minutes, then scrub with soap suds.



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child to be happy to its heart's con-tent, and the mother free from an-In the Sewing Room mother free from annoying considerations of spoiled soiled clothing. The Rompers in this instance are made of checked gingham trimmed with white, but linen, cham-bray, and all sturdy materials of the The Fashionable Colors for the sort, are appropriate. For the boys, khaki cloth often is used, giving a distinctly masculine effect that is apt "Blue will be high in favor this fall and winter, and that certainly is good news, because blue is pretty apt Navy and royal blue are both looked upon as fashion leaders. Copenhagen blue and Nattier blue, or



5798 Child's R. 22 to 32 walat 2. 4 and 6 m The pattern 5798 is cut in sizes for children of 2, 4 and 6 years of age. NINE GORED PLAITED SKIRT

The one-piece dress is the favorite of the moment with the smaller chilof great simplicity combined with at tractiveness. This one is so simple that the labor of making is scarcely to be computed while it makes a very pretty effect and is thoroughly com fortable. It can be made from al-most any pretty, childish material, the various washable ones and such but as illustrated white linen is trimmed with an embroidered banding. The dress is drawn on over the head, in jumper style, and there are consequently no fastenings to be to be worked.

"I have tried other dyes, but none give complete satisfaction as the Diasuch complete satisfaction as the Dia-mond Dyes, One ten cent package made my solled silk blouse look as go'd as new. I am now quite proud of this lovely Cardinal blouse, and my friends admire it

Mrs. Edward E. Lachance, Quebec, P.Q.

If continued wear or accident has almost ruined your blouse, skirt, dress, jacket, ribbons or hat, one 10 cent package of **Diamond Dyes** will give you any fashionable color and restore the dingy garment to new life. **Diamond** Dyes impart a freshness and crispness to old materials that is truly astonishing. Try one package and be convinced.

Diamond Dyes are anxious for your success the first time you use them. This means your addition to the vast number of women who regularly use Diamond Dyes in their homes. When dyeing Cotton, Linen or Mixed Goods, or when you are in doubt about the cha-racter of the material, be sure you esk for Diamond Dyes for Cotton. If you are dyeing Wool or Silk, ask for Dia-mond Dyes for Wool. At all times beware of substitutes and crude dyes.

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Send us your full address, and we will mail you free of cost the famous Diamond Dye Annual, New Teddy-Bear Booklet, and Diamond Dye Direction

WELLS & RICHARDSON Co., LIMITED MONTREAL P. O.



15 November, 1907.

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One 10 cent Package of **DIAMOND DYES** Made my Soiled Silk Blouse Look as Good as New.



to be appreciated at even an early age. The essential requirement, how-ever, is durability, and whatever means that is suitable.



this one. It can be slipped on over any gown; it is perfectly comfort-able, it serves both for rain and for fair weather, and in addition to all these practical uses it is cut in a dis-tinctly smart and satisfactory man-ner. The model is made from show-her the model is made from shower-proof covert cloth stitched with belding silk, but all the many cloaking materials of the season are ap Many of them have the

The pattern 5786 is cut in sizes for a 22, 24, 25, 28, 30 and 32 inch waist

CHILD'S KIMONO DRESS 5791

The dress is made in one piece, the only seams being those under the arms and those which join the edges of the sleeves. The belt is optional worn is slipped under straps at the under-arm seams which

5803 Auto or Rain Cont. 34 to 42 bust

u728 House Gown, 34 to 42 bust.

The pattern 5803 is cut in sizes 10r 36, 38, 40 and 42 inch bust 3.4. measure.

HOUSE GOWN 5728.

To Be Made with Sleeve-Bands or Roll-Over Cuffs.

The pattern 5728 is cut in sizes for 34, 36, 38, 40 and 42 inch 'bust measure.

rain-proof finish which renders them doubly desirable, but even when this does not exist they are apt to resist light rains with success. Cheviots and homespuns are admirable for the early season, while later, heavier materials will be found desirable, and there are a great many attractive double-face cloths that make most satisfactory wraps for real cool weather

CHILD'S ROMPERS 5798.

Common sense applied to children's clothing is one of the later develop-ments for which the rising genera-tion has cause to be thankful. Wise mothers of to-day provide their little ones with just such garments as this ones with just such garments as this one that can be slipped on either over the frock or over the underclothing and which allow absolutely free and untroubled movement, leaving the untroubled movement, leaving





measure

2 to 8 year's.



The pattern 5791 is cut in sizes for children of 2, 4, 6 and 8 years of age.

FANCY BLOUSE WAIST 5799.

The pattern 5799 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust

Coming Winter

to be becoming to pretty nearly ever

old blue, are both high-style shades. AUTO OR RAIN COAT 5803. In these days of many autos and the numberless trips taken therein, no woman's wardrobe is quite com-plete without such a loose wrap as this one. It can be slipped on over



THE LITERARY CLUB

Edited by D. G. French, Temple Building, Toronto, Canada, to whom all communications regarding the Department should be addressed

Studying a Play

In studying a play it is important to remember that it was written to be played, that it was intended to be presented and acted upon the stage. The poet or the novelist may tell us his story while we sit around in an imaginary circle and listen; he may take us into his confidence and explain the peculiarities of his char-acters, but the dramatist must create his characters, set them before us, and let them act out the story while he

The events of the dramatic action must be the natural outcome of the innate character of the persons con-cerned in that action. The deed must be consistent with the personality of the actor.

What the student will find in a play will depend largely upon what he is looking for ; a play may be con-

I. As a form of amusement; it may further thought than the pleasure of the passing moment. 2. It may be considered as one of

the forms of poetry, and the poetic qualities and devices carefully traced

It may be taken as an exposition

4. The description and delineation of character is important. The persons of the play should be to us real and live and we should try to become ac-quainted with their motives of ac-

5. The play may serve as a basis 6. It may be an exemplification of

national characteristics or types. 7. It may be considered as a work of dramatic art, its structure and arrangement considered, the efficiency of character portrayal discussed.

All these points may be considered, but above everything the student should strive to get a thorough knowledge of the story and the relation of its various parts, a close acquaint-ance with the characters, and a compassage.

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The Merchant of Venice

LESSON L-ACT L

Before beginning a detailed study of Before beginning a detailed study of the play read a synopsis of the story in your text-book, or in Lamb's Tales from Shakespeare. Then read the first act carefully, making use of explan-atory notes and dictionary to get the meaning of difficult words and pais-

The first act introduces the principal characters of the play, and the motive of the stories of the bond and the caskets: consequently, there is little "action." The sadness of An-tonio is a presentiment of coming

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misfortune and paves the way for the subsequent tragic developments. lew prominent points in the character of Antonio, Bassanio, Shylock and Portia, are brought ont. We understand fully Shylock's plan of revenge.

Note the change to prose in Scene II. because of the minor importance, not of Portia, but of Portia's suitors. This scene introduces the story of the caskets. The use of prose in Scene III. may be accounted for by the feeting exhibited, the badgering spirit of Shylock. These two portions are in

The introduction of the "Aside," Scene III, gives us the information from Shylock's own lips as to why he hated Antonio. The attempt of Shylock to justify his practice of usury gives us a clearer insight into his standpoint and enables us to understand better his attitude toward

understand better his attitude toward Antonio. Note the feeling of the age toward the Jewish race, as exhibited in the spirit of Antonio's replies. The passages in this Act which should be memorized are lines γ_{2} -tot, 140-176, Scene J.; 92-115, Scene JI. Do not fail to be able to quote per-

2: Do you consider Salanio and Sal-arino good comforters ? If not, why not ?

3. What difference do you notice be-tween Gratiano and Salarino ?

4. Who are Janus, Nestor, Cato, Brutus ?

- 5. What is the rhetorical figure in "bottom" ? 6. Why was Bassanio in difficulties ?
- 7. What was the feeling between An-tonio and Bassanio ?
- What was the proviso about the caskets ?
- 9. Who were Portia's suitors, and what were the prominent traits of

what were the prominent trats-of character of each? 10. What was Portia's feeling toward Bassanio? Why introduced here ? 11. To what does Shylock refer in speaking of the Nazarite ? 12. What is brought out about Shy-lock in the fact that he had to

- secure money from Tubal to make the loan ?

13. How do you account for so kindly

- a man as Antonio speaking so harshiy to Shylok ? Hassain says "You shall not real to such a bond," and again, "I like not fair terns," etc. What point of his character is brought out by this ?
- 15. How many scenes in Act I. ? 16. Who are the characters (Act I.)
- 17. What is the purpose accomplished by each scene ?
- 18. What were the reasons given by Shylock for his hatred of Antonio
- 19. Why did Antonio dislike Shylock ? 20. What are the peculiarities of lan-guage exhibited throughout this
- 21. What was the story of the "Gold-en Fleece" ?
- Why is prose introduced ?
- That is the function of 23. What the
- 24. What is the substance of Gra-tiano's speech to Antonio ? 25. What were the provisions of the
- EXERCISE ONE-MERCHANT OF
- r. Describe briefly the character of
- 2. State, in a few paragraphs, what this act contributes toward the
- Write explanatory notes on : Rialto, doit, gaberdines, wealthy Andrew, Nestor, moe. 5. What is the use of the "Aside" in

Prize for best list of answers-a

Preparing an Argument

Preparation is the secret of success in debating. When your topic is chosen, set to work to find out all you possibly can about it. Get books, magazines, newspaper articles on it, and jot down the different points you find. Talk with anyone who knows anything about the subject and keep track of any ideas you get. After collecting all possible mater-ial, arrange it carefully, under differ-

ent points. Have plenty of examples, illustrations and facts to back up your statements. Study both sides of the question. Try to find out your answer them.

answer them. Don't depend on the spur of the moment. Practise your speeches be-forehand. Divide up the points on your side among the different speak-ers, letting one speaker attend principally to certain points, another to

Arrange all your points in logical order, keeping the strongest point for



the close of the debate. Each speaker should have a brief outline of his arguments on a card, so that a glance it will keep him in line with his plan.

For the best outline of a debate (not more than 350 words) on some live topic, giving a synopsis of the arguments for both sides, we offer a copy of "5,000 Facts About Canada."

* Canadian Poetry

Many Canadians would be surprised at the quantity and quality of Cana-dian poetry if they made a little study of the subject. The suggestion of the Educational Association, at its last meeting regarding the introduction of Canadian literature into our

schools is well worthy of attention. Let us hope that the new series of Readers will have a good selection of Canadian prose and verse.

When winter lifts

- A sounding trumpet to his strenuous lips,
- And shapes the drifts To curves of transient loveliness, he
- slips
- Upon the pasture's ineffectual brown swan-soft vestment delicate as down.

-E. Wetherald.

Oh no ! there's not a fairer land Beneath heaven's azure dom Where Peace holds Plenty by the hand, And Freedom finds a home. —Helen M. Johnson(1861).

Annual Meeting of American Association of Farmers' Institute Workers

The above Association held its twelfth annual meeting at Washing-ton, D.C., last month. The attend-ance was quite up to the average of any preceding convention, and re-presented the different sections of the United States and Canada. Cana-United States and Canada. Cana-dians were prominent both on the program and by the number present, including several Institute lecturers from Ontario, as well as President Creelman, Prof. Zavitz, and Super-intendent Putnam. Mr. Bracken of Saskatchewan, Mr. Reid of Prince Edward, and Mr. G. A. Gigault of Oueber. cruresented their esservice Ouebec, represented their respective Provinces.

An important feature in connection with Institute work this year was the report of the standing commit-tees. Six of these committees have been appointed as indicated below. Only brief statements are here given

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of their reports : (a) INSTITUTE ORGANIZATION AND METHODS.—In whatever method is adopted there must be more or less responsibility thrown upon prominent persons in each locality where work is to be carried on. Some are of the opinion that the In-Some are of the opinion that the opinion that the opinion stitutes should form a branch of the College or Experimental Station work. The majority seem in favor, however, of keeping the two separate, but always have as much co-

Women's Institutes and their Work Geo. A. Putnam, Supt.

The annual convention of the On-tario Women's Institutes will be held in Massey Hall, Agricultural College, in Massey Hall, Agricultural College, Guelph, on December 11th and 12th. Fuller announcements as to pro-gramme will be made in next issue. Among the subjects of interest to let taken up are : "Breakfast Foods," by Prof. R. Harcourt of Guelph, and "Feeding and Care of Children," by Miss C. A. Alkens, of Detroit, who hear sizen this subject a creat deal of has given this subject a great deal of study. Miss M. U. Watson will also give an address upon the same sub-ject. "The Education and Training of the Young Woman on the Farm, will also form a subject for addresses and discussion. A number of Insti-tute officers and workers from different sections of the Province will give brief addresses and take part in disbrief addresses and take part in dis-cussions upon such topics as are of general interest to Institute members. During the past two years very lit-tle time has been given to discussing ways and means of perfecting the work of the Institute. This will receive considerable attention this year. We have been fortunate in securing the consent of Mr. C. C. James of the Department of Agriculture to give an address upon "The Home." Two or three other prominent speakers are expected to attend the Convention, of which fuller announcements will be made later.

NEWLY ORGANIZED INSTITUTES

In corresponding with newly-formed Institutes throughout many sections of the Province, we have received many interesting replies. One of the most encouraging features in connection with the work is the realiness with which the women of both the country and the town enter into the work of organization. In the majority of localities there is abundance of talent and when aggressive officers are in charge of the work in the dif-ferent localities, programs of interest and value are usually given from month to month.

Orders for grants to all Institutes which have complied with the conditions have been passed, and cheques will be sent to the secretaries of such

County conventions are likely to prove of considerable interest in the Institute work of the future. The

Cure Your Rheumatism! Get a \$1.00 package of Vize-Ore on 30-days' trial from the Theo. Noel Company, Chicago. It cures old chronic cases. See big page advertisement on back page of this issue. two which have been held, viz., at Flesherton and Preston, in Grey and Waterloo Counties respectively, have been well attended and the excellent papers prepared by local workers and the enthusiasm aroused cannot but produce beneficial results throughout the ridings concerned.

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Your subscription to the Farm-

ing World if you are in arrears



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No matter how your musical tastes run, the Berliner-Victor Gram-o-phone will give you the kind of music that appeals to you. All you have to do is to adjust the records and you have the best this world can give you, right there in your own home for your family and your friends. Anything you want, from a coon song or funny story to the glorious voice of the great Caruso.

The records are round, flat discs. (Don't confuse them with cylinder records.) They take up little space and are practically indestructible. They cost from 40c, up and last for years. Write for catalogue of 3,000 records, then go to the nearest dealer and hear some of them for yourself-that's all we ask.



operation as possible between the Institute on one hand, and the College and Experiment Station workers on the other

on the other. (b) INSTITUTE LECTURERS.--It is quite evident, from the papers read and addresses given, that, while it is necessary for the most part to have practical men on the Institute have practical men on the institute staff, it is becoming more and more essential that these practical men should be strengthened by scientific knowledge bearing upon the topics which they discuss. The College Pro-fessor is becoming more and more consist in the second of the States. sought after in many of the States. (c) CO - OPERATION WITH

OTHER EDUCATIONAL AGENCIES. -In many States it is somewhat difficult to discriminate between the work of the Institute and the work undertaken by those who have charge of College extension matters. Con siderable unprofitable discussion took place as to what should be termed Institute work and what College ex-tension work. There are unlimited possibilities for the man who has charge of College extension work, as well as for the man who has charge of the Farmers' Institute work, in the generally accepted meaning of that term. What may be called College extension work in one locality may rightly be called Farmers' Institute work in other districts. There is, no

work in other districts. There is no necessity, however, for clashing of forces or overlapping of work. (d) MOVEABLE SCHOOLS OF AGRICULTURE. — By moveable Schools of Agriculture is meant an Institute meeting of several days' duration with the object of dealing somewhat exhaustively with one or more subjects. These have been given a trial in several States, as well as in Alberta and Saskatchewan, and the results have proved the worth of this sort of education, and it is likely that the method will be more generally followed, especially in those districts where Institutes have

those districts where institutes have been established many years. (e) BOYS' AND GIRLS' INSTI-TUTES.—In a few of the States separate classes have been held for boys and girls, but the work in this line has usually consisted in one or more sessions of a regular Institute meeting being devoted to topics in which the boys and girls would be specially interested or could take part. instruction has often taken the form of corn-judging for the boys, and judging or making of fancy work, and different lines of cooking, for the girls.

(f) WOMEN'S INSTITUTES. While considerable attention has been given in many of the States to securing speakers specially qualified to address the ladies in attendance at the Farmers' Institute meetings, and in many cases separate sessions have been held for them, very few per-manent organizations have been established for the women on the farm. Many of the States have their their Granges, and there is no call for organization ganization is such places, as the work carried on by the members of the Grange is quite similar to that carried on in those places where sep-Women's Institutes have been established

Altogether the Convention was of great value to the Institute Superin-tendent. The direct information and suggestions given regarding travelling

PREPARE FOR THE WINTER! Get cured of your adments before winter's cold and wet makes them worse-Don't star sick. Trr Vine-Ore without any risk. See hig page advertise-ment on last page of this paper.

libraries, fruit institutes, monthly Infraries, fruit institutes, monthly meetings, demonstration work, spe-cial courses along definite lines for Institute members, and other topics, were found of great value.

The officers for the ensuing year are given below : President-Dr. Tait Butler, Raleigh,

Vice-President-J. L. Ellsworth, Boston, Mass. Secy.-Treas.-John Hamilton, Wash-

ington, D.C.

Executive Committee-G. A. Put-Executive Committee-G. A. Put-nam, Toronto, Ont.; T. L. Calvert, Columbus, Ohio; A. E. Chamberlain, Brookings, S.D.

Among those elected on standing committees are Supt. Putnam, Presi-dent Creelman, and Dr. Annie Backus, Aylmer, Ont.

QUESTI)NS AND ANSWERS

Cow Holding Back Her Milk

I have a good cow but she will not ive down her milk. She will give it for a day or two all right and then the next time she is milked she will only give a quart or two. I have tried giving her something to eat when milking but that does not seem SUBSCRIBER. to help any.

It would be difficult to say, from the information given, what is the cause of the trouble. Try feeding her half an hour or so before milking. Some food, such as bran, might le to stimulate the milk flow. given given to stimulate the mink how. Does the cow get salt regularly ? Is she fresh calved ? Is she in good health ? Is she excited by dogs or by other causes at any time ? Is she of a highly nervous temperament ? Does the same person milk her regularly ? There may be several causes for a cow holding her milk. Have any of our readers advice to give en this subject ?

Ration for Milch Cow

I have yellow corn stocks that are husked and also can set corn ground on ear. What proportion of oats and bran would you feed with it to milking cows ? D. W Hastings.

If your cows are giving about 20 lbs. of milk, the best ration you could make out of the materials you mention would be composed of corn stover cut and moistened, 30 lbs.; bran, 4 lbs.; oats, 4 lbs., and corn and cob meal, 2 lbs. This would be improved by reducing the corn stover to 20 lbs. and adding 6 lbs. of clover

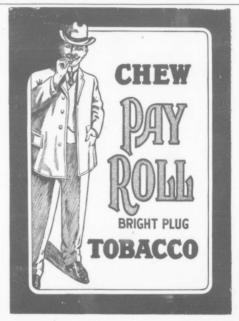
Standard Weights

What is the standard weight of plums, apples, pears and onions Haldimand Co. A.E ABC

There is no standard weight in use in the trade for the fruits you men-tion. A barrel of apples should weigh 165 lbs. gross, a barrel of pears about 175 lbs. Plums are sold by the basket of 11 quarts and onions by the Ioo lbs.

Sick Colt

I have a two-year-old Clydesdale gelding, which I had castrated last June and which evidently got over it all right. About two months ago it partially lost the power of its hind legs, wobbles about badly and strikes



was part of his duty to do. A yearly hiring would be governed by the same considerations. New Year's Day, Same considerations. New Year's Davy Good Friday, Easter Monday, Vic-toria Day, Dominion Day, Labor Day, Thanksgiving Day, the day set apart for celebration of the reigning Sover-egin's birthday, Christmas Day, and Sundays are legal holidays in Un-terior.

ber of these may vary according to the length of the month, the number of Sundays falling in it, etc.

Where a person has entered into the service of another it is his duty to continue in such service during the whole time that he has contracted for and if a man has hired for eight months and is to be paid at the end of that period, and wrongfully leaves his employer's service during that period, he cannot recover for the time he may have worked even though he may have been engaged at a cerhe may have been engaged at a cer-tain sum per month, the employer's contract being to pay him the whole of his wages at the end of the time for which he was hired.

Pigs Trespassing

My neighbor's pigs are in the habit of coming through the line fence and roaming through my crops. Do I have to fence against the same or no? J. B. A. (Ontario).

It is the duty of owners of occupied adjoining lands to make, keep up and repair a just proportion of the fence which marks the boundary between them. The owner or occupant of any land is responsible for any damage caused by any animal owned by him or under his charge and keeping. There is no duty cast upon you other than to make, keep up and repair a just proportion of the line or division fence, and even though the ience through which they break into your land may be that part of the division fence built and maintained by you, your neighbor will be responsible for any damage his pigs may do by tres15 November, 1907.

passing upon your property if the fence is a proper and lawful one and in good repair



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its legs together. It has great diffi-culty in getting up. Kindly let me know the cause and cure ?

This is probably a case of paralysis and should have energetic treatment. We would advise calling in a qualified veterinary surgeon. This trouble is sometimes caused by too high feeding and not enough exercise, in which cases give opening medicine and lax-ative food and keep warm.

Rural Law

The Hired Man

Can a man hired for a certain num-ber of months take the holidays without having to put them in in the fall ?

Does it make any difference whether hired for a year or not ? Are twenty-six working days called

a month ? How many holidays are there in a

year i

Can a man hired for eight months collect his wages if he quits at the end of two months, providing he is hired for a certain number of dollars per month ?

A SUBSCRIBER (Ontario)

As to whether or not a person hired for a definite period is entitled to the legal holidays depends to a considerable extent upon the terms of the hiring and the nature of the work or employment. By his agreement a person may bind himself to work on the holidays. Again, the employment may be of such a nature that it is may be of such a nature that it is necessary that he should remain at his duty. In the case of a farm laborer he would have to do those works which are regarded as the ordinary chores (for example, water-ing and feeding the cattle, etc.) and other things which of necessity must be done about a farm and which it

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PURE-BRED STOCK NOTES AND NEWS FROM THE BREEDERS

These columns are set agant exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and purchase of stock and the condition of herds and flocks that is not in the nature of an advertisenent will be welcomed. Our deairs is to make this the medium for converying information as to the transfer of purebred animals and the condition of live stock throughout the country. The co-operation ef all breeders is earnestly solicited in making this department as useful and as interesting as possible. The F4400 reserves the right to eliminate any matter that he may consider better wited to our advertising columns.

Gossip

T. J. Cole, Maple Grove Farm, Bowmativille, Ont., has made a record with his large English Yorkshires, in the show-ring, and with the stock supplied to his numerous customers. "The Maple Grove Farm" stock is a guarantee of quality evely time. In poulity, Mr. Cole has heen a very successful breeder and exhibtor of the leading kinds. Consult his advertisement in this issue.

Mr. S. Snowden, Bowmanville, Ont, well and favorably known to Berkshire fanciers, reports having had a successful season at the fairs, winning about everything where showing. His stock at present are in fine condition, the result of careful attention as to breeding and feeding. He has a fine lot of young breeding stock to offer. Leave the selection to him and you will not be disappointed. As a poultry man he is hard to beat in the show-room. His advertisement appears in another column. Give him a trial.

Mt. Pleasant Stock Farm, the home of that enterprising young breeder and stockman, Mr. Bertram Hoskins, lies about three miles west and north of Grafton, on the main line of the G.T.R. Visitors are made welcome, and a few hours can be profitably spent inspecting his herds. There are head of registered Holsteins of 35 head of registered hoistens of high order, headed by the roval bred bull, Queen's De Kol Duke, whose grand-dam, Princess Yonintje Pauline Paul, has a record of 13.52 lbs., and a milk record of 51 1-2 lbs. per day. The females, although not officially tested, have given on ordin-ary pasture, upward of 60 lbs. milk per day. The proprietor is offering young stock of the choicest kind for sale, sure to give satisfaction. His Tamworths are an extra fine lot, prizewinners wherever shown, bred to the true bacon type. An extra fine lot of youngsters are ready to go.

Mesars, John Gardhouse & Sons, Highfield, Out., are offering in this issue a few choice Shorthorn bulls. They are all show bulls, three of them being in the money at Toronto last September. They are also offering a choice three-year-old Shire stallion and two yearling coits. They are all of good breeding and should te seen by prospective huyers.

R. Reid & Co.'s auction sale, held at Hintonburg, Oct. 22nd, was a suc-

STOP REING SICK! Why suffer longer when there is help and health for you? Vite-Ore cures where others fail and you can try it without sny risk, for one whole month. Read the advertisementon last page and send for it.

YORKSHIRE SWINE

We have a stock of over 1500 to choose from, and have a fine lot of specially selected young males and females for sale. Prices reasonable.

Glenavy Co., Limited, Davisville Glenavy Farm, Eglinton Avenue East North Toronto. cess considering the high price offered. Included among the offerings were several pure-bred animals, though the bulk were grades. The sale totalled \$52,487.

In this issue Wm. Mehary, Russell, Ont., offers for sale on Dec. 37d, at Ottawai, an importation of filteen deta Cyclo and importation of filteen deta Cyclo and the same and threeyear-old. They are the large, smooth kind, with fine underpinning and -fe excellent quality and breeding. All are in good condition and ready for wintering. They have all been bred to good horses in Scotland. Another thing worth considering is that they are all registered in both the Scottish and Canadian Studbooks. The sale offers a splendid opportunity to secure high-class breeding stock. For further particulars apply to Mr. Meharey.

At the International Dairy Show at Chicago last month, Mr. R. K. Ness, Howick, Que, purchased two Avrahire cows, paying Si.155 for one and So53 for another. He also purchased three more at lower prices. Mr. Ness has had a most successful season at this year's shows and evidently intends to keep his breed of Avrahires right up to the top notch in point of quality.

Mr. A. W. Colveill, Newcastle, Ont., has completed his up-to-date building for his herd of Tamworth hogs. At the present time there may be seen in this comfortable structure about fifty youngsters from a few days old to those ready for shipment. Mr. Col-



Ontario Veterinary College, Ltd.

Most successful Vet. Institution in America Prof. A. Smith, F.R.C.V 5., Principal Temperance St., Toronto, Ont,

NITH SIDE FARM Herd of Large English Britshires, Southdown, Shirey and Harr Grey to eight months old. alio 4 Young Boars fi for service. A very choice lot. 2 of the Donovan. The lows will be brid f wanted to my fine young imported Boar Cincinnatus (1894).

E. E. MARTIN, Canning P. O., Paris Station, Oxford Co., ONT.

Large English Yorkshires The Largest Herd in America.

We are headquarters for the profitable feeders. The Summer Hill type of Ortshires and different from the rest. That's why they win wherever shown. Our Herd has won international and St. Louis, then all other herds combined. We always heve pletely to select from. Our prices are right and our stock is right - and you will be right if you buy Summer Hill Torkshires.

D. C. FLATT & SON - Millgrove, Ont. Six miles from Hamilton.

Woodstock Herd of Large English Berkshires

I HAVE FOR SALE Pigs of all ages, both sexes, from eight weeks to eight months old, sired by such Stock Boars as Woodstock Laddie and Polgate Doctor's Rival. All true to type and prize-winning stock. Call and see or write for prices.

DOUGLAS THOMSON, Woodstock, Ont. C. P. R. & G. T. R.

YORKSHIRES of Choicest Type and Breeding.

S.E.

I have on hand 75 brood sows of Princess Pame, Cinderella, Clara, Minnie, Lady Prost and Queen Bess strains My siock hoars are true to type and richest breeding. For sale are a harge number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin

J. W. BOYLE, Woodstock, Ont.



herd has such a record in the show ring, covering several years. Oak Lodge type of hogs are profitable breeders and ideal bacon hogs. Correspondence solicited. J. E. BRETHOUR, Burford, Ont. will reports the following recent sales :-- A young hoar to Geo Cannibell, Killarrey, Man, ior exhibition purposes, another to G. Day, Creemore, Ont.; one each to S. Snowden, Rowmanville, Ont.; W. J. Zelibatt, Chapman, Ont.; W. W. Zealand, Kritfield, Ont.; S. A. Powell, Elizabethville, Ont.; C. A. Campbell, Mt. Vernon, Ont.; one sow to Max Green, Spring Valley, Ont., and another to A. E. Jackson, Joinwille, P.Q. Mr. Colwill is also the possessor of a finer bunch of young rams will be hard to find by intending purchasers.

Jerseys in Good Demand

Messre, B. H. Bull & Son, Brannton, Ont, report an excellent demand for Jerseys. Prices are high for choice quality. They report the following recent sales: --To R. Prod-Homme, Osler, Sank, four cows of good breeding; to Chas. McDonald, Gananoque, Ont. a son of Imported Perior, to head his herd; also two well-bred cows and two heifers by Brampton Pedro, a son of Rhoda and Brampton Monarch.

To W. D. Munro, Martintown, Ont., to head his herd, Brampton Sultan, a grand son of Brampton Monarch and Imported Pretty Maid.

To R. and A. H. Baird, Chesterfield, Ont., a bull calf, Brampton Blue Emperor by Blue Blood and out of Brampton New York Maid. This is one of the best bred bull calfs ever sold in Canada.

To Chas. E. Rogers, Dorchester, Ont., Brampton Blucher, son of Brampton Monarch, and out of Una Massena, with a butter record of 19 Ibs. of butter per week.

To Bert Lawson, Crumlin, Ont., to head his herd, Brampton Aylesbury, a 15 November, 1907.



JOHN BOAG & SON Importers and Breeders of High-class Clydesdales

We have to offer fine imported Clydesidle stallions and fillies. Carefully selected consignment just landed. They are the right kind, combining size and draftiness with desirable style and quality. They are carefully selected personally, and are from leading sizes in Sociland and with good breeding on dam's side. Write and tell us what you want.

RAVENSHOE P.O. Brown Hill Sta., Midland Div., G.T.R.



Clydesdale Fillies

A few big drafty ones, sired by Up To Time, Acme, Baron Mitchell, Lord Fauntleroy, Clan Stewart, and other noted breeding horses in Scotland. Also two grand Yearling Stallions sired by Baron McNee and General Hunter. Personally selected in Scotland by myself. Come to St. Thomas for a grand imported Clydesiale Brood Mare.

ALEX. MCNEVIN, St. Thomas P.O., Ont.

CITY VIEW STOCK FARM Clydesdale -- Shorthorns

Five Fine Imported Clydesdale Stallions of choice breeding, for sale. Fifteen Good Young Shorthorn Bulls at a reasonable price : : :

J. W. INNES - - - - Woodstock, Ont.

Do you wish a sample copy of The Farming World sent to a friend? Send us the address and we shall gladly send a copy.



an We M On va tai the DFC ula the son "si abl and and bree ther cros that Mos firs has cont ada greathe biole sequ of o the 1 spite is in dity who not s head imagi of the VOII 1 tool ens th blood breed

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15 November, 1907.

bull of great dairy quality, sired by Brampton's Nameless King, and out of Brampton Monarch's Mona.

To J. G. Hanmer, Brantford, Ont, son of Arthur's Golden Fox, to head his herd

To John Gildner, Cloverside Dairy, Berlin, to add to his dairy herd, Brampton Tioga Boy, a grand son of Brampton Monarch.

Brampton Monarch. To James Baggs & Son, Edgely, Ont., a son of Brampton Monarch's Beam by Blue Blood, to take the place of Brampton King Edward as the head of their herd.

To Jos. M. Dalson, Aloa, Ont.,

To Jos. M. Danson, Atoa, Oft., a son of Brampton Monarch Ina by Blue Blood, to head his dairy herd. To H. S. Pipes, Amherst, N. S., Brampton Monarch Ina., the four-year-old daughter of Jitsam's Molina. year-old daughter of Jitsam's Molina, by Brampton Monarch (Imp.); also her full sister, Brampton Jitsam. Both were prize-winners, as were also their sire and dam, at Toronto Exhi-bition. Mr. Pipes also secured Bramp-ton Brilliant Sun, a model darry ton Brilliant Sun, a model dairy cow and show helfer and a prize-winner the last two years at To-ronto. Her sire, Blue Blood, was for several years champion buil of Can-ada, while her dam, Sunbeam of Brampton, was also the champion cow.

To Wm. Molfat, Chester, Man., to head his herd, Brampton Cicero Boy, and two heifers, one by Brampton Blucher and the other by King's Fox.

. Polled Hereford Sale

Folled Referring Saie In our advertising columns this week appears the advertisement of Mossom Boyd Company, Bobcaygeou, calling an auction sale at Windsor, Ont., on Nov. 28th, of double stan-dard Polled Herefords. This is a new variety of cattle that has already at-tained a good deal of popularity in the United States, and one which promises to become still more pop-ular as the stock increases. It is therefore in order to give our readers some information respecting them. some information respecting them. It appears that an occasional polled

"sport" occurs in most, and prob-ably in all, breeds of horned cattle, and it was by searching the length and it was by searching the length and breadth of the realm of Hereiord breeders for such "sports," selecting them, breeding them together, and crossing them on pure horned lows, that the polied variety was developed. Mossom Boyd was one of these who first took the Popert up and in the continent, and the only one in Can-ada or elsewhere. ada or elsewhere

The efforts of these breeders were greatly facilitated by the fact that the polled character in cattle is what biologists call a dominant character that is to say, it dominates its oppo-site horned character, and is in con-sequence readily transmitted. Many of our readers will have noticed how persistently a muley cow transmits the polled head to her descendants in spite of repeated horned crosses. This is in accordance with laws of heredity now well understood by those who study the subject, but we have not space to explain those laws here. The fact is, however, that the polled head is easily cultivated (we can imagine some of our readers ruefully reflecting that a bald head is rather of the dominant, prepotent, or what you may call easily cultivated sort, too), so that as a little leaven leavblood polls the whole herd; and many breeders agree that in the case of the

HIGH CLASS

Hackneys and Clydesdales Some fancy performers for sale. Apply

H. J. SPENCLEY, Box Grove, Ont.

GRAIGIE LEA STOCK FARM | HINCPEST Clydesdales

We have now for sale 8 imported fillies sized by such sizes as Royal Favorite, Clas Chattan, Sir Hugo, Baron Mitchell and Marraion, etc. Seven rising three years old and broken te harness. Long Distance Phone. Manchester P.O. and Station, G.T.R., Myrtle, C.P.R.

R. M. HOLTBY.



Clydesdale Fillies A number of fine imported fillies, sired

by such horses as Everlasting Royal Chattan and Prince of Carruchan, now on hand and for sale. Good value will be given for the money.

G. A. BRODIE, Bethesda, Ont. STOUFFVILLE STATION, G.T.R.

Booking Orders Ahead





SMITH & RICHARDSON IMPORTERS OF CLASS GLYDESDALE HORSES

We have now on hand only the choice imported colts, Dasking King 3 years old, and Baron Golumbus, the Toronts winner, as 2 year old, Also a couple of good Canadian 7 and 3 year olds. Come and see them at their stables at

COLUMBUS, ONTARIO Myrtle Station, C. P.R.

DONALD GUNN & SON, Beaverton

Oshawa Station, G.T.R.

W. C. KIDD,

Importer of Clydesdales, Staires, Percherons, Belgians, Hackneys, Standard-breds

and Thoroughbreds

of highest possible quality and richest breeding. Have sold as many stailness the last year as normal, the possible states with complete satisfaction in every case. In two business with number of high-class horese on hand. My motios "None best the best and a straight deal." Will be pleased to hear from any other that a straight deal.

LISTOWEL P. O. AND STATION

LISTOWEL, ONT.





GRAHAM & RENFREW, Bedford Park, Ont.



Simcoe Lodge Clydesdales and Hackneys

Imported and .Ganadian bred Ciydesdales and Hackneys For Sale

Our stables have won Pirsts and Champiouships at America's leading Shows, and a few individuals of the show-ring kind are always on hand. Come and see them

T Messes. Hodgkinson & Tisdale, Beaverton, Ont. Long distance telephone at Parm, C.P.R. & C.N.R. Stations



1082

Hereford breed particularly, since it is handicapped by an extremely long, dangerous horn, the polled blood is going to make a great improvement. Such, at all events, is the opinion of those breeders who have been for the past two or three years cagerly buy-ing the double standard poiled bulls, almost regardless of price, from the few breeders fortunate enough to pos sess this sort. We are informed by one of these fortunate persons, name-ly, Mr. Warren Gammon, Secretary of the American Polled Hereford Record that he has been selling his polled calves at a minimum of \$300 each and has frequently obtained \$500, and occasionally still higher prices, and he adds that every one he could spare went before it was a year old. Seewent before it was a year old. See-ing that the pedigreed cattle market was during this same period so de-pressed that it was difficult to obtain even \$100 for a horned bull call of Hereford or any other breed, Mr Gammon's experience and the experi-ence of other Polled Hereford breeders indicates a great future for this variety. It would appear, therefore, that on good grounds that Mossom Boyd Company in their advertisement advise all who wish to sell their Herefords readily to buy a polled bull. The advice is probably sound even if purchasers should have to pay such prices as are indicated above, but an auction sale is a great lottery. Weaauction sale is a great forces, which there is often had and attendance poor, and the cattle sell in consequence for much less than would be taken for them at private sale. It is good them at private sale. It is good policy for the enterprising breeder to attend and be prepared to take adwantage of such circumstances if they should occur.

Judges at the International

The following are the judges select-ed for the International Live Stock Show at Chicago next month, in the classes in which Canadians are most interested :

Shorthorns-Chas. E. Leonard, Bel-lair, Mo.; E. K. Thomas, Middleton, Ky., and Captain T. E. Robson, London, Ont.

Clydesdales-Prof. W. B. Richards, Fargo, N.D.; Andrew McFarland, Polo, Iowa, and John Dickson, La-fayette, Ind.

Hackneys-Henry Fairfax, Aldie, Va.

Va. Sheep-Shropshires, Geo. Allen, Lex-ington, Ky.; Arthur Danks, Alamuchi; N.J. (alternate); Hampshires, P. W. Artz, Oshorn, Ohio; Cotswolds, J. K. Allen, Draper, Utah; P. W. Artz (al-ternate). Southdown, Prof. G. E. Day, Guelph; Dorsets, John R. Nasa, Lipton, Ind.; Oxfords, Frank Klein-heinz, Madison, Wis; Leicesters, Wm. McIntosh, Burgoyne, Ont.; Lincolns, Prof. G. E. Day; Grades, and cross-breds and champions, David McKay, Ft. Wayne, Ind.

Swine-Berkshires, Elmer Barker, Thorntown, Ind.; Tamworths, E. N. Ball, Hamburg, Mich.; Yorkshires, Ball, Hamburg, Mich.; Yorkshire Henry Booth, Stock Yards, Chicago.

International Horse Show

The 2nd annual International Horse Show will be held at the Olympia, London, England, in June, 1908. A deputation will cross the Atlantic to interest American and Canadian exhibitors.

THE FARMING WORLD.

15 November, 1907.

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15 November, 1907.

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THE FARMING WORLD.

Do you wish a sample copy of The Farming World sent to a friend? Send us the address and we shall gladly send a copy

WILLIAM COOPER & NEPHEWS BIRKHAMPSTEAD, SHENSTONE, LICHFIELD, ENGLAND

We are prepared to receive orders for HAMPSHIRE, SHROPSHIRE, SOUTH-DOWN LINCOLN, COTSWOLD, LEICESTER and DORSET HORN SHEEP, BERKSHIRE and YORKSHIRE SWINNS and SHORTHORN CATTLE, which we can purchase at close prices and will deliver at a reaso

William Cooper & Nephews

CANADIAN AGENT-W. GEORGE CAVAN, BOX 1057, TORONTO, ONT.

Belmont Home Stock Farm

Leicester Sheep-about 30 yearling and ram lambs for sale. Hampshire Swineorders will be taken for young breeding stock. Pairs not akin can be furnished. Some good Clydesdale Horses for sale. Also choice Barred Rock Poultry.

Hastings Bros., Crosshill, P.O. G. T. R., Newton, C. P. R., Linwood,

FOREST VIEW FARM Canada's Greatest Herd of Herefords

Won at Toronto, 1907—1st, Senior Herd; 1st, Junior Herd; 1st, Herd of 4 Calves; Junior Bull Champion ; Bull and Heifer Calves, 1st champion and grand cham-pion, Females any age.

JOHN A. GOVENLOCK, Forest, Ont.

THE SUNNYSIDE HEREFORDS

FOR SALE-12 Heifer Calves, 6 Bull Calves, 2 Yearling Bulls, 6 Cows with Calves, 2 Yearling Bulls, 6 Cows with Calves at side. Sire of young stock, On-ward (Imp.). Herd headed by Prime Lad 32nd (Imp.). Popular prices.

M. H. O'NEIL, Southgate, Ont.

We breed registered and prize-winning Guernsey, French Canadian, and South-down Sheep. Our prices are yours, and our stock the best. 4 Guernsey Bull Calves must be sold before Xmas.

GUY CARR, Compton, Que. Try a beautiful young Herd of 5 French Canadian Cattle at \$200.

MEADOWVALE FARM

High class Shorthors from recent isporta-tions; Tamworth Swine bred from prize winner at Toronto, London; prize winning Leicester Song, Tailla and Herr this will be nich class pocusation of accelly of feed; also several nee young Tamworth Pigs, and five Sircester Eam Lamba. L. P., STAPLES, IOA, ONT.

DAVID RCCPAE, Janefield, Guelph, Canada Importer and Breeder of Galloway cattle Clydesdale horses and Cotswold sheep. Choice animals for sale.

AUCTIONEERS

T. E. ROBSON LIVE STOCK AUCTIONEER 2 Becher Street London, Ont.

GEO. JACKSON, Port Perry, **PROVINCIAL AUCTIONEER** Pure Bred Stock a Specialty.

LEVI A. W. TOLE BOWMANVILLE, ONT. LIVE STOCK AUCTIONEER | Phone at Residence

MAPLE CLIFF FARM Clydesdale Horses and Tamworth Pigs.

Three Imported Stallions and one

Hackney for sale And a number of young Boars fit for service.

R. REID & CO. Hintonburg Farm adjoins Ottawa.

THOMAS REDMOND MILLBROOK ONT

Breeder of Shorthorns of high quality. Vinners wherever shown. Correspon-Winners wherever shown. dence solicited. Long distance Phone.

SHORTHORNS of right type and quality, Im-ported and Canadian Bred BULLS ready for Service : also COWS and HEIFERS. The get of Noted Imported Bulls are offered for Sale at Write or call on easy prices,

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Woodstock Ontario. INFORTER AND BREEDER OF HORTHORNS AND YORKSHIRES.

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FOLEY, ONT. Breeder of Clydesdales and Shropshire Sheep and Shorthorns, Olester Lavender, Avria, Miss Ramsden and Lady Eden families. Stock for sale. Long Distance phone.

SHORTHORNS so Imported and Canadian bred. Young stock always for sale, male and female, top crossed by such bulls as Baron's Heir (imp.,) Derby (imp.) and Golden Abel (imp.). The imported Bruce Mayflower bull Royal Bruce 55058, heads the herd. R. J. DOYLE, Owen Sound, Ont.



Maple Avenue Stock Farm SHORTHORNS, LINCOLNS, TAMWORTHS

A few fine young buils fit for service. Choice breeding and character. Some fine Lincoin, Cotwold and Shropshire sheep for sale. Two grand young Shire Stallions and a number of Welsh Penies for sale. Will buy any quantity of Canadian pure bred Shropshire, Hampshire, Lincoln and Cotwold rams.

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HOLLYMOUNT STOCK FARM MITCHELL, ONT.

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MAPLE LODGE STOCK FARM

Scotch Shothorns, Choice Milk-ing Strains. Prize-winning Leicesters. Young Stock for sale - imported and home bred.

A. W. SMITH, Muple Lodge P.O., Ont.

No grade Lamb equals the half-bred Try a Pure Bred Dorset Ram on your flock this Fall. I have several on hand to choose from.

R. H. HARDING,

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PINE GROVE STOCK FARM

Breeders of High Class Scotch Shorthorns Choice Shropshire Sheep, Clydesdale and Hackney Horses. James Smith

W. C. Edwards & Co., Limite Superintendent, Proprietors. Rockland, Ont., Canada.

JOHN GARDHOUSE & SONS, Highfield, Ont.

Breeders of Scotch and Scotch-topped Shor Share Horses and Lincoln Sheep

At present offering a few choice Show Bulls; also females, and one Shire Stallion, three years old, and two Yearling Colts

Farm 31/2 miles from Weston station. 'G.T.R. and C.P.R., and electric cars from Toronto : :

ELMDALE STOCK FARM THOS. BAKER, SOLINA, ONT.

Breeder of Shorthorns, and Importer and Breeder of Shropshire Sheep and Welsh Ponies.

Young stock for sale.

Long Distance 'Phone

OXFORD DOWN SHEEP at Farnham Farm

We have for present offering a number of first-class imported and home-bred ram lambs, the home-bred ones being all aired by imported ram; also a number of yeariing two-shear and ewe lambs.

HENRY ARKELL & SON - ARKELL, ONT. GUELPH. G. T. R. ARKELL, C. P. E.



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A choice lot of Young Bulla for sale - promising herd headers, of the most desirable

THE FARMING WORLD.

15 November, 1907.

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Breeders' Directory

CARDS under this head inserted at the rate of \$2,00 per line, per year two lines, nor for less than six months. No card accepted under

Horses

S MITH & RICHARDSON, Columbus, Ohio. See large ad.

R. R. NESS, Howick, Que

HODGEINSON & TISDALE Beaverton, Ont. —Clydesdales—Stallions and fillies for sale.

sheep

LLOYD JONES, Burford, Ont. A fine selecion of cho

FORSTER FARM, Oakville, Ont. Breeders of Dorset Horn Sheep. Registered Stock for sale. Correspondence cheerfully answered. See large ad.

C. EOSS. Jarvis, Ont. Cotswold Sheep Prize-winners at America's leading shows. Imported and home bred Also some good Clyridsdale Horses.

NO. COSENS & SONS, Harriston, Ont C P. R. and G. T. R. Oxford Down Sheep, Short-horn Cattle, Yorkshire Swine, Stock for sale,

GEO. B. ARMSTRONG, Bowhill Stock Farm, Teeswater, Ont. - Leleoster breeding ewes.

DETER ARKELL & SONS, Teeswater, P. O. I and sta., C.P.R.; Mildmay, G.T.R. Oxford Down Sheep, showring and breeding stock, im-ported and home bred.

THOS. ARKELL, Teeswater, On'., sta. C.P.R.; Mildmay, G.T.R. Choice breeding stock. Oxford Down Sheep.

JAS. TOLTON & SONS, Walkerton, Ont. Breeders of Oxford Down Sheep and Short-horn Cattle ; young breeding stock for sale.

NO. AYEE & SON, "Belewart Farm," Bow-manville, Ont,-Breeders of Southdowns. Stock for sale.

GEORGE N. HARRIS, breeder of Southdown Sheep and Berkshire Pigs, Lynden, Ont.

P. C. GOSNELL, Ridgetown, Ont. A choice

Swine

J. LORNE FOSTER "Glenhodson Stock Farm," Myrtle, G T, R, & C, P, R. Breed-er of Yorkshire Swine. Young stock for sale.

DOUGLAS & SONS, Mitchell, Ont.-Breed-ers of Tamworth Swine, B Turkeys, Toul-ouse Geese, Pekin Ducks and S. C. W. Leg-horns. Correspondence invited. borns.

J. W. TODD-Corinth, Ont.-Breeder of Eng-tiah Berkshires and Tamworths. Breeding stock for sale.

ABTEMUS O'NEIL, Birr, Ont,-Importer and breeder of Hampshire Swine Write for des-cription, prices etc.

A. COLWILL, Newcastle, Ont. (successor to Colwill Bros.) Shorthorns and Tam-worth Swine Choice young stock for sale.

0. COLLINS Bowesville, Ont., breeder of Yorkshire Swine. Good Young Stock for P sale.

A.S. WILSON & BONS, Fergus, Ont., breeders of Yorkshire Swine. Young Boars and Saws of choice breeding for sale. N. GLAZIE. Manhard, Ont Yorkshire Whites and Holsteins. Young stock for sale. 0.

soung stock for sale.
S. BNOWDEN, Bowmanville, Ont. Box 39, Breeler of Large English Berkblives, B. Bocks, Light Brahmas, W. and B. Leghorns, Room Ducks, Wielsand Turkers, Bowman-there, Wielsand Turkers, Bowman-there, Brown and W.H. Turkers, Pekin Ducks, Toulouse and Enden Geese.

CATTLE

OHN SCOTT, Dunblane, Ont., Shorthorns. Young stock for sale Write us.

PURE SCOTCH-TOPPED SHORTHORNS Young stock of both sexes for sale. J. MAR-H ALL, Jackson P.O., Ont. Tara Station, GT.R.

P. POLLARD, Shadeland Stock Farm, Can-ton, Ont, breeder of Shorthorns an Berk-shire Swine. Young stock always for sale. Rural phone.

DERTRAM HOSKIN (Mt. Pleasant Farm) The Guily, Ont. Breeder of Holstein Cattle, Tamworth Syine. High-class young stock for Long distance ph

DOBERT SHAW, Brantford, Ont., breeder of Galloway Cattle. Young stock of both sexes for sale.

JOHN DEVDEN & SON. Brooklin, Ont. See large ad.

L. Breeder of Herefords Stock for sale. Long distance phone.

THOS. ALLEN & BEOS. Oshawa, Ont. Short-horns-Gloster, Ramsden, Symes families.

A. E MEADOWS, Port Hope, Ont. Short-horns, Matildas, Isabellas, Gloster, Lady Ann families. Choice young stock for sale.

MADISON COOPEE, Watertown, N.Y.-Pure-bred Holsteins. Good pedigree Bulls for sale. Send for price, pedigree, photograph.

H. W. JEWELL, Bowmanville, Ont., Box 179. Breeder of Shorthorns, Gloster, Lavinia

OHN GARDHOUSE & SONS, Highfield, Ont. See large ad.

JOHN BEYDON, Milverton, Ont., G T R .--

GEO. B. ARMSTRONG, Bowhill, Stock Farm, Tecewater, Ont. -- Imported and Home-bred Shorthorns for sale.

W. F. STEPHEN, Box 163, Huntington, Que Springbrook Ayrshires-for sale-some young stock, both sexes.

JOHN DAVIDSON, Ashburn, Ont. Myrtle, G.T.R. and C.P.R. Some grand breading young stock, sired by Village Secret and other toppers. Price right for the goods.



C. E. BAIN, Taunton, Ont., breeder of high-class Shorthorns. Registered young stock from best females for sale.

CHAS. GROAT, Brooklin, Ont., breeder of Clydesdales and Shorthorns, Gloster, Mesdowflower families.

A. J. WATSON, Castlederg, Ont.-Breeder of Scotch Short Horns. Nine young Bulls for

JAS. ROBERTSON & SONS, Willow Bank Farm, Milton, Ont, Breeders of Shorthorn Cattle, Dorset Sheep and Berkshire Swine,

Miscellaneous

T. GIESON, Denfield, Ont., Sta. G.T.R. Imported and Home-bred Scotch Short-ns Choice breeding stock in Lincoln Sheep.

H. BARTLETT, Kimbo P.O., Ont., Lincoln's Co., Riverview Stock Farm.-Shorthorns nd Dorset Sheep

AS. EOWMAN, "Elm Park," Guelph, Ont,-Imp, & breeder of Aberdeen Angus cattle Clydesdale horses & Suffolk sheep, Correspon-dence invited.





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Market Review and Forecast The Trend of Markets-Supply and Demand-The Outlook

Toronto, Nov. 13, 1907.

Bradstreets report of business conions published this week is reassur-ing. Nearly all lines of trade report good business. The money market rules firm with little prospect of any lowering of interest or discounts for some time.

WHEAT

There has been large buying of American wheat for export. The im-provement in the financial outlook in the United States has made the wheat market more active and prices have an upward tendency. The slowness with which it is being moved from the head of the lakes is hamperfrom the head of the takes is namper-ing business in the West, though wheat values at Winnipeg jumped 3c. per bushel this week. There is not much trading in Ontario wheat, the car shortage being somewhat to blame. Holders are asking \$1.00 for red with bids about 98c. to 99c. per hushel

COARSE GRAINS.

Oats rule high at 51 1-2c. to 52 1-3c. outside, and barley at 78c. to 84c. as to quality. Peas are quoted at \$3c. to \$5c., and No. 2 American yellow corn quoted at 7oc. per bushel, To-roato freights. At Montreal, Ontario roatio freights. At montreal, Ontario bran is quoted at \$24 to \$25, and Manitoba, in bags, at \$22 to \$23. Here Ontario bran is quoted at \$22 per ton in car lots in bulk.

HAY AND STRAW.

Baled Timothy hay has reached \$18.50 per ton in car lots, Toronto, and may go higher before the winter is over. Loose hay on the local market sells at \$22 to \$24 per load.

Baled straw is quoted here at \$10 to \$10.50 per ton.

POTATOES AND BEANS.

The potato market is firm here at 75c. to 8oc. per bag in car lots, To-romto. Beans are steady at \$1.80 to \$1.90 for primes and \$1.90 to \$2 per bushed for hand-picked.

POULTRY AND EGGS.

New-laid eggs are scarce both here and in Montreal, and quotations are

nominal here at 30c. to 35c. in lots. Storage eggs are quoted at 24c. to 25c. On Toronto farmers' market. strictly new-laid bring 45c. per dozen.

Live poultry is quoted here at oc. to 11c. per lb. for turkeys; 7c. to 8c. for geese and ducks, and 6c. to 10c. for chickens.

DAIRY PRODUCTS.

From 12c. to 12 1-4c. seems to be the ruling figure at local markets for late fall cheese. At Montreal, early fall makes are quoted at 13c. to 13 I-2c. and later makes at 12 I-2c. to 12 3-4c.

The butter market rules strong the bitter market rules strong at the high prices prevailing. At Mont-real on Monday last, holders were asking 27 1-2c. to 28c. for Townships creamery. Creamery prints are quot-ed here at 29c. to 30c., and solids at to 27c, and solids at 23c. to 24c. On the farmers' market here butter brings 32c. to 35c. per lb.

LIVE STOCK.

Trade in live stock rules steady. The cattle offering show no improve-ment in quality. There are few ex-porters offering. Export bulls are in demand and sell at \$3 to \$3.75 per cwt. Few butchers' cattle are selling for over \$4 per cwt. The better qual-ity will bring that and more. A few sold this weck at \$4.50 per cwt. The bulk, however, sell as follows : medium to fair steers and heifers, 900 to 1150 lbs., at \$3.50 to \$3.75; good cows, \$3 to \$3.75; common cows, \$2to \$2.65; canners and bulls, 75c. to \$1.75 per cwt.

Feeders and stockers sell at the folbowing prices : Best feeders, noo to 100 bls., at \$3.25 to \$3.60; best stockers, 600 to 800 bls., at \$2.25 to \$2.60; medium stockers, 600 to 800 bls., at \$2 to \$2.25; common stockers, for a the stockers, 600 to 800 500 to 700 lbs., at \$1.50 to \$1.75.

Trade in first-class milkers and springers was never better than it is now. Good to choice cows sell all the way from \$40 to \$65, the bulk at \$50 each.

Trade in veal calves is not so brisk. Prices range from \$2 to \$6 per cwt. Good to choice veals find a ready market at any time.

Prices for sheep and lambs show little change, the demand ruling fairly good. Export ewes sell at \$3.75 to \$4.25; lambs at \$4 to \$5.40 per cwt.; picked ewes and wether lambs sell at \$5.40 to \$5.60 per cwt.

Packers are making a dead set against unfinished hogs, which are coming in too freely. Quotations are \$5.80 per cwt. for selects and \$5 for unfinished.

HORSES.

There is a demand for heavy horses in good condition. Prevailing quota-tions here are as follows: Heavy workers, \$125 to \$175; medium, \$\$0 to \$100; second-class drivers and saddle horses, \$60 to \$100; express horses, fair weight, \$100 to \$160; wagon horses, \$100 to \$140; chunks, sound, 1,200 to 1,300 lbs., at \$120 to \$175.

U. S. Grain Crop

The following table gives the estim-ated yields of cereals in the United States for 1906 and 1907, as compiled by the Bureau of Statistics at Washington : -

Crop-Bush. 1907. 1906 Winter wheat ... 409, 500,000 492,888,000 Spring wheat ... 216,067,000 242,374,000 Barley 147,192,000 178,916,000 Rye 31,566,000 33,375,000 Hay—tons 60,766,000 57,146,000 *

Clover Seed

The estimated yield of clover seed in the United States on Oct. 1st last was 65, as compared with 69 on Oct. 1st, 1906.



No better time than now to begin your bookkeeping or shorthand your bookeeping of subtrained course. Our oldest school offers every advantage-most complete and up-to-date courses; individ-ual instruction; expert teachers; moderate rates; Y.M.C.A. privi-leges (free). Write for catalogue.

British American V.M.C.A. **Business** College Building Yonge and McGill Streets, Toronto-T. M. WATSON, Principal



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T. F. WRIGHT, Principal.

PROF. DEAN ADVOCATES PAY-ING BY TEST

(Continued from page ro6c.) making. It is not our intention to revive this controversy at the present time, but we are safe in saying that all authorities are agreed that if the case n as well as the fat in milk could be determined

accurately at small cost, we should

then have a more correct basis of comparison as to the relative values of milk for cheesemaking, than is got by testing for fat only. It was with the idea of recognizing the value of casein in milk for cheesemaking that we suggested some years ago adding the factor 2, to the percentage of fat in milk, the sum thus obtained being the approximate available fat and casein

15 November, 1907.

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in milk for the making of cheese. For many reasons the suggestion was not lavorably received, though we confidently believed and do still believe it to be the nearest approach to a method whereby we could ascertain the appropriate relative values of normal milk for cheesemaking by knowing its lat content only. It is not necessary that we go into details on this



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This book tells in plain language many things you want to know, and gives a lot of good, wholesome advice for men.

DR. A. M. McLAUGHLIN, 214 St. James St., Montreal, Que.
Dear Sir,-Please forward me one of your books as advertised.
NAME
ADDRESS

15 November, 1907.

14

THE FARMERS' EXCHANGE One Cent a Word CASH WITH ORDER

Advertisements under this head one cont a word, Oash must accompany all orders. No display type or euts allowed. Buch initial and number counts as one word.

Farms for Sale

FOR 8ALE—108 acres, situated 1 miles from Jerseyvills Post Office, in township Of Accuster, Hamilton, 28 acres beech and mapte timber; frame house, 12 rooma. Splendid bank harn, stone foundation, This is a most desirable farm. Price: \$7000 & G. Read & Son, Limited, Brantford, Ontario.

SELI, YOUR REAL ENTATE quickly for eash, The only system of its kind in the wor'd, You get results, not promises. No retaining fees, Booklet free REAL ENTATE SALESMAN COMPANY, 810 Brace Block, Lincoln, Neb,

FARMERS, ATTENTION-Drain you land and double your income. This may seen exaggerated, but it's a fact, nevertheless, if you use Dovle's Tile, Write to-day for prices. R.J. DOYLE, Owen Sound.

Help Wanted

WANTED-Reliable agents to sell Fruit Trees. etc., during fall and winter months. Terms the best in the business. Established over thirty years. PELHAM NURSERY CO., Toronto.

Wanted

GUERNSEYMAN, married, seeks situation as herdsman on stock farm, or general farm work, fourteen years' experimee with Guerneeys. Good references. Wile charge of Dairy, if required.— LE PAGE, Bronte.

WANTED-Farmers and others wishing farm help or domestic servants, apply, ALEX. STEVENSON, Immigration Agent, Kilmarnock, Beetland.

WANIED as Units of States of States

WANTED-Persons to grow mushrooms for us at home: waste space in cellar, garden or farm can be made to yield \$15 to \$25 per week during fall and winter months. Send stamp for flustrated booklet and full particulars. Montreal Supply Company, Montreal.

WANTED - By a well-established Toronto house-young men of good appearance to represent them in town and country. 33 to 56 a day to good workers. Experience unnecessary. Address KEYSTONE VIEW COMPANY, Toronto.

HOME WORK-We want reliable families to operate our high-speed Automatic Knitting Maelines at home, whole or spare time knitting for the trade ; good wages. For all particulars address THE CANADIAN WHOLESALE DIS-TRIBUTING CO., Orillia, Ont. Dept, W.

For Sale

WANTED—Offers for Winning Shorthorn Cow and Bull Caff at Great East Peterboro' Show. Grand opportunity to secure first-class stock at your own price. Choice White Leghtorn Cockerels. Very reasonable for quick sale. Write G. A. BRETHEN, Norwood, Ont.

FOR SALE—Three hundred stock, grain, fruit, dairy, garden and canning factory produce farms in the Niagara District. No better land, elimate, or more prosperous section in Canada. Write for free list. THE ONTARIO REAL ESTATE CO., Dunnville, Ont.

³⁷⁷ FOR SALE—A 11-roomed Brick Veneered Dwelling and 5 acres of land. Excellent garden and orehard of the choices fruit, and commodious outbuildings Situated on King St. east in the Town of Oshawa and within a few minutes' walk of the post sollies. For terms apply to JOIN CURINE, BOX 172, Oshawa, Out



ROCE SALT for horses and eattle, in tons and Carloads. Teremto Salt Works, Toronto

THE FARMING WORLD.

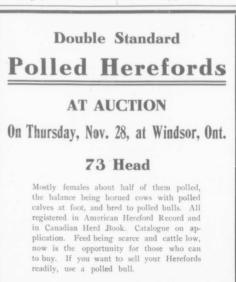
part of the controversy at this time.

Recently, we have been informed on good authority that a simple, accurate, and cheap method of test ing the casein in milk is about ready to be placed on the market. If this information is correct, it will be second only in importance to the Babcock test for determining the fat in milk, and offers a solution of the vexed problem of paying for milk at cheese factories. Whether or not the new test will fill all requirements, no one can tell at present, but we have sufficient data now to show that the determination of the fat in milk with or without the addition of a factor to represent the casein, is a long way in advance of paying for milk on the basis of its weight alone. The hungry man is foolish to continue hungry while waiting for a whole loaf, when a half loaf is at his disposal to stay the pangs of hunger. Better make use of the half loaf, until the whole is avail-

On the grounds of better morals and better business, we earnestly hope our cheese factory patrons, owners and managers will decide at their coming annual meetings to introduce the test plan in some form during 1908. H. H. Dean.



FIX THAT STOMACH! Don't let it go any longer. Get a package of Vize-Ore on trial and test it for any Stomach Trouble at the risk of the Theo. Noel Company, Chicago. Read their liberal trial offer on last page.



MOSSOM BOYD CO. BOBCAYGEON, ONT.

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15 November, 1907.



Why Don't You Send For It And give it a chance to prove to you what it will do, a chance to show you how it works? It is easy to get. A short note, giving your name and address, saying, "I want to try it," will bring it to you by next mail, all charges paid. You don't need to fill out any blanks, don't need to give any references, don't need to answer any questions. You don't need to send any money. It is yours to try, simply for the asking. Willy DON'T YOU? We don't care where you are, whit your nationality, sent religion for the stating. Willy DON'T YOU? we don't care where you are, whit your mail on the stating. Willy DON'T We don't care where you are, whit your mail on the stating. Willy DON'T will be out the your without a penny. We don't even care what your trouble is. We are on you paying us after it has helped you. Why don't you send for it? Why not write today?

It Costs You Nothing To Try! Why Don't You?

One Million Sick People have accepted our offer and tried Vitae-Ore at one million sick people have written "Send me a package on trial," and they got it. One million sick people have tested Vitae-Ore without a penny's risk, have judged it, have seen for them-selves what Vitae-Ore is and what it can do, as we ask you to see and judge. Hundreds of all-ing, sickly, bodily weak, worn-out people are sending for it every day in the year. Perhaps at his very moment some one a short distance from your home la writing us for a package on trial, taking the first step to health we ask you to take. Month after month our trial offer has paperate and has been accepted by thousand of people who needed the health Vitae-Ore offers. homestly and gladly pay for the trial treatment when they are benefited. Why don't you send for it? You have everything to gain and nothing to lose. You are to be the judge. Read our trial offer, read the good work Vitae-Ore has done for others, and write for a package today.

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of every sick and alling person to use every possible means to be cured of their aliments, remain th, in an unanturn condition, until for the fullest duties of life, if a curs can be ob-tine fullest duties of life, if a curs can be ob-give Vita-Ore a trial on this offer fails to take advantage of cone of the cheapest as well as the advantage of cone of the cheapest as well as the

Dropsy From Fever Feet and Limbs Ware Badly Swollen---Had Kidney and Heart Trouble.



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You Don't Pay For Promises, you pay only for the health it brings you. You pay for the work, not pay for t-No, not a penny! You pay to be the judge, and you have have not been done to your withink done you work on you are stronger, more active. If your limbs do not pain you, if your stomach does not trouble you. If your have done not believe for You have whether or not your organs are acting better, whether or not health is returning loy your heard does not believe for Not know whether or not your organs are acting better, whether or not health is returning loy your heard does not believe for Not know whether or not your organs are acting better, whether or not health is returning loy your heard. If not-DON'T PAY, Bat you must ry it to know, must give it a chance, must get it and we it, so end for it immediately AT OUR HIBS.

