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The Farming World



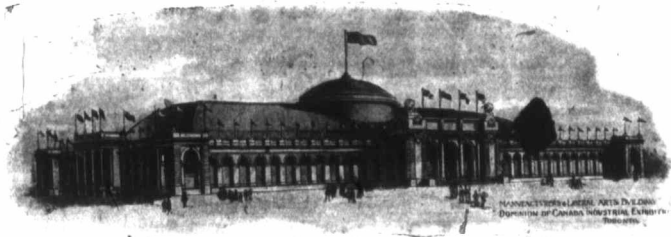
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Our newly printed eighth page folder on the "Cause and Nature of Blackleg" is of incalculable value. Write for it, it is free.

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Crystal City, Mas., August 27th, 1902.

W. G. DOUGLAS, Esq.

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We drilling holes in Mower line or limits. **Write to Park, Davis & Co., Walkerville, Ont.** A sample is all that is required to attach it to any mow. Give your orders to any of our local agents, or send direct to

TOLTON BROS., Guelph, Ont

WHEN WRITING ADVERTISERS, PLEASE MENTION THE FARMING WORLD.

PUBLISHER'S DESK

Messrs. Marion & Marion, Patent Attorneys, Montreal, Que., kindly invite all who are interested in securing patents to write to them for a copy of The Inventor's Help. This firm have been successful in securing patents for a large number of their clients in Great Britain, Canada and the United States. Their advertisement appears elsewhere in this issue.

In the last issue of the Farming World there appeared in the Publisher's Desk an item in reference to "reading notices," which attracted considerable attention and some adverse criticism. In that item we held that all references in the reading columns to our advertisers and their interests were sugar coated advertising, and as such should be deprecated.

The business of a newspaper is to give news and to furnish entertaining and instructive matter for its readers. In a agricultural paper, items of information concerning articles advertised in its columns are frequently of direct benefit to its readers. Such items are always acceptable to the editor. Frequently these carry with them advertising of the first quality and we are always glad that the advertiser shall have the benefit. What we do object to and refuse to publish editorially, are advertisements pure and simple, containing statements as to the truth of which the editor has no knowledge, and many of which claim for the goods merited which they do not possess. All such puffings not only do harm to the advertiser, but disgust the average reader.

Mr. W. F. Young, Springfield, Mass., whose advertisement appears in another column, sends us a long list of testimonials from customers of his who have recently used his Absorbine and his Taroleum, with most gratifying results. Evidently these articles are worth the attention of all horsemen. An extract from one of the many testimonials reads as follows:

"I have used your Absorbine on a bald spavin and have found it worth all its high reputation." Signed, Harry R. Brown, North Pitcher, N. Y.

Our readers who are of an inventive turn of mind will no doubt be glad to learn that Marion & Marion, Patent Attorneys, Montreal, are pleased to consult with persons in all parts of the Dominion regarding patents. Mr. James Miller, of Lyn, Ontario, has secured a patent for a seed marker, and Mr. Felix Mesnard, New Glasgow, Quebec, for a vehicle wheel.

Empire Push No. 2

The above is the title of a neat pamphlet just issued by the Empire Cream Separator Company, of Bloomfield, N. J. It was designed for use by the agents of this company in pushing this separator among dairymen. It tells of the many good qualities of the Empire separator, and gives in addition a lot of information of value to dairymen. Push it along.

Prevention is the only safe and sane method of meeting the disease known as blackleg. Cures are impossible. Write to Park, Davis & Co., Walkerville, Ont., the largest manufacturing pharmacists and biologists on the continent, for their com-

"They're frae Glesgie."

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Made by
Watson, Laidlaw & Co.,
Glasgow, Scotland.
Exclusively British in design
and manufacture.



3084

Tried, Tested and Victorious
for over a Quarter of a Century.

Separators

In Princess Cream Separators the highest products of Scottish engineering skill and ability are at your disposal.

WATCH THIS SPACE

We will tell you something more about Princess Cream Separators every month. We will tell it to you all at once if you write for catalogue.

Sole Agents for Ontario
Campbell Arnott & Co.,
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The Hardie Magic Sprayer
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It sprays two rows at a time and one man can spray ten acres of potatoes a day. It is automatic in action—all the operator has to do is to pick up the handle and push the outfit like a wheelbarrow—the machine does the rest.

More solid brass by weight in the sprayer than any inferior spray pumps made. Awarded first place at the Government Spraying contest. It will spray your orchards, kill the wild mustard, paint and whitewash your buildings.

Send for our new catalogue telling the whole story.

Hardie Spray Pump Mfg Co., WINDSOR, ONT.



Built on the interchangeable plan.

All machines built so must be exactly alike, each part standardized, and a plunger or valve or any other part from one must fit all. This saves money for the users of the


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Any part can be supplied at once from London, and it will fit in the machine without the use of a file. Every part works smoothly together and without friction.

More solid brass by weight in the sprayer than any inferior spray pumps made. Awarded first place at the Government Spraying contest. It will spray your orchards, kill the wild mustard, paint and whitewash your buildings.

Send for our new catalogue telling the whole story.

SPRAMOTOR CO
London, Ont.



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plete literature on blackleg, and the employment of their ideal preventive agent, "Blacklegoid," the product that is unequalled for effectiveness and is easily used.

Finds Caustic Balsam to be Reliable

Antigonish, N.S., April 30, 1902
The Lawrence Williams Co., Cleveland, O.

I can say that I have been for the past three years a user of GOM BALE'S CAUSTIC BALSAM, and have found it to be all that is claimed for it, and have in a great many instances recommended its use to others.
R. D. KIRK

Read Up

We publish in this issue a photograph of Prof. George E. Day of the Ontario Agricultural College, Guelph, and a director of the Canadian Correspondence College, Limited, of Toronto.

This College has a well developed Agricultural Science Department, the



PROF. GEORGE E. DAY

tutors in which are nearly all professors of the Guelph College.

Prof. Day is a firm believer in teaching by correspondence and is of the opinion that this college will prove of immense benefit to the agricultural classes.

We recommend all farmers, dairymen, stock raisers, etc., who are desirous of carrying out their work on scientific principles, to write to the college for one of their free booklets.

Ontario Crops

In last issue we gave some information regarding Ontario crops. The situation has greatly improved since and the outlook is promising.

Pithy Sayings

- Silence is a still noise.
- Bashfulness is ignorance afraid.
- Sarcasm is an undertaker in tears.
- Conscience is our private secretary.
- Poverty is the stepmother of genius.

WE WANT GOOD reputable persons everywhere to sell our new sanitary Combs. Positively sell on sight and give absolutely guaranteed satisfaction; will remove dandruff, cure itching hair and headaches. Money refunded if not satisfactory. Sales large, and active agents are actually becoming rich. Work your own towns or travel. We sell you low. Write for terms without delay. **Dr. Combs, 525 University.** Address, **PROF. LONG, No. 8 Day Street, St. Thomas, Ont.**

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It is Worth While

investigating the advantages offered to settlers on the **CROWN LANDS IN NEW ONTARIO**. The climate is all right; the land is rich and well watered; railways serve each district opened for settlement, and the local market for timber, in most cases, enables the cost of clearing to be more than met by the crop of trees now on the land.

If You have any Curiosity

as to Ontario's advantages in this regard, and desire to better your position, write for information to:

HON. E. J. DAVIS

Commissioner of Crown Lands, TORONTO, ONT.

WHEN WRITING ADVERTISERS, PLEASE MENTION THE FARMING WORLD.

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The Farming World

And Canadian Farm and Home

VOL. XXII.

TORONTO, JULY 1, 1903

No. 11

Dominion Day

TODAY is Canada's national holiday, a day that is peculiarly her own. Thirty-six years ago the Dominion of Canada came into being, a very short period in so far as the history of nations is concerned. And yet, what great things have been accomplished in these short years. A number of scattered and widely separated colonies have been organized into a great nation, loyal to British institutions and to Britain's Sovereign. A great trans-continental railway has been built, one of the greatest in the world, and a second one is to be begun very shortly. An export trade has been built up of from \$57,567,888 in 1868 to a total of \$211,640,286 for the fiscal year ending June 30, 1902, and a grand total of imports and exports for the same year of nearly \$425,000,000.

Such a record is inspiring. Let us reverse the name of Canada, uphold her institutions, develop her resources, and push forward to still greater achievements in nation building on the Northern half of this continent.

Making for Better Things in Agriculture

No movement of recent years has done more to elevate agriculture and improve the position of the farmer than that of the farmers' institutes. The gathering of institute workers in Toronto last week, a report of which appears elsewhere in this issue, showed how widespread and how important this movement is both in Canada and the United States. It is estimated that the aggregate attendance at farmers' institute meetings on this continent during the year ending June 30, 1903, was about one million. Think for a moment what this means. One million farmers and their families take part in the discussion of from six to ten addresses each year on practical topics relating to farm management, the home and kindred subjects. Can such a work fail to influence the agriculture and home life of this continent to better methods and higher ideals? Assuredly not.

A movement so widespread and so full of possibilities for the future should have at its head men of tact and sound judgment, upon matters affecting the agriculture of the country. Any false step would be fatal and might lead into paths that would blight our great agricultural interests for half a century. However, from the demeanour of the men and women from all

parts of the United States and Canada who attended last week's gathering, we are assured that no false move will be made. They were men and women of high ideals and of sincere purposes, ever on the lookout for improved methods and better ways of conducting the great work in which they are engaged.

Such was the keynote of last week's gathering; one of the most important held in this city for many a day. Its effect upon the institute work of this and the other provinces of the Dominion cannot but be of value. The movement in this country has gathered

PRIZES FOR ESSAYS

The Farming World has donated \$5 to be given at the Toronto Industrial Fair this year for prizes for essays on a series of practical farm topics. Five prizes will be given in each section, making twenty prizes in all.

These prizes will be given for the best essays on (1) "How may our agricultural lands be made of more educational value to the people in the district in which they are held"; (2) "Labor saving in the Farm Home"; (3) "Feeding and fitting cattle for market"; (4) "Breaking and fitting horses for market".

Full particulars are given in the Industrial Fair prize list. If you have not received one, write the manager, 70 King street east, for a copy. Entries for this competition close on August 8th, 1903, and all essays must reach the Secretary of the Industrial Exhibition on or before August 25th, 1903.

around it a group of men and women of whom every Canadian may feel proud, an army of devoted workers whose highest aim is for improving the agriculture and home life of the Dominion. The visit of their American co-workers should be a source of inspiration that should stimulate to even better work in the future.

To Stamp Out Contagious Disease

A measure has been introduced into the House of Commons giving the veterinary branch of the Department of Agriculture wider powers in dealing with contagious and infectious diseases among animals. It provides that every owner or breeder of animals, and everyone importing animals, who shall perceive the appearance of a contagious disease is required to give immediate notice to the Minister of Agriculture and to the nearest veterinary inspector of the Depart-

ment of Agriculture. Any veterinary surgeon discovering a contagious disease shall also notify the Minister or the nearest inspector. Failure to observe this section of the Act may be punished by a fine not exceeding \$200. Owners of animals destroyed by the authorities will be compensated for on the following scale: If the animal was diseased one-third of its value before it became affected, but in no case more than \$20; in every other case, three-fourths of the value, but not to exceed \$50 each in the case of grade animals; in the case of pure-bred animals, two-thirds of the value, not to exceed \$150 each. No one will receive compensation who disseases the Act or who imports an animal diseased before it enters the country.

This legislation is based largely upon the law in force in the United States. It seems necessary in order to facilitate the interchange of live stock between Canada and the United States that the quarantine regulations of both countries should be as uniform as possible. In recent years the United States have been gradually drawing things a little tighter in reference to veterinary inspection, making it necessary for Canada to take further action. This, we understand, is the chief reason why the new legislation is being introduced into the House of Commons at this juncture.

How it will affect the live stock industry remains to be seen. The compensation to be offered where cattle are slaughtered because of contagious disease seems fairly liberal. The change in the regulations, making it compulsory to have all animals imported into Canada, tested with tuberculin at the port of entry, may probably lessen the number of importations of pure-bred cattle from Great Britain. However, if this new law succeeds in stamping out all contagious diseases among Canadian live stock, it will serve an excellent purpose and be of great benefit to the cattle trade.

Wanted in South Africa

Professor G. E. Day, of the Ontario Agricultural College, has been offered the position of Live Stock Commissioner in Orange River Colony, South Africa, at a salary of \$6,000 per annum. It is to be hoped that the Government may be influenced to offer sufficient inducement to Professor Day to keep him in Canada. This province, let alone the College, cannot afford to lose so painstaking and so competent an official.

Manitoba Shorthorns Sell Well

Mr. Greenway's Sale a Success—Forestry Work Progressing
Stallion Registration—American Editors Conquered

By Our Western Correspondent

When the organization of the Forestry Branch of the Department of the Interior was first discussed there were many who regarded its operations, so far as the West might be concerned, as trivial and unimportant. There might be a few farmers induced to plant trees, it was said, but so far as the majority were concerned they neither had, nor were likely to have, any inclination to do so. The fact that twenty-five years' occupation still found the majority of Manitoba farms without a tree save those which nature had in some cases placed there, and that in the main the Western farmers did not make any attempt to preserve, much less improve, the scanty timber that, as settlers, they found on their lands, seemed to indicate that the efforts of the new branch of the Government service would be as seed sown in stony ground. But the result to date has cleared away all doubts concerning the real sentiments of this community as regards trees and tree planting. The efforts of the forestry officials have been received in a manner indicating a deep interest in and appreciation of the plan proposed by the Government for the afforestation of the Prairie country. It has been shown that the Prairie farmer is as keenly alive to his own interest in this as in every other matter, that he knows a "good thing" when he sees it, and loses no time in making as much as possible out of his own. It has been shown that only expert advice and assistance is required to make enthusiastic "foresters" of the residents of the plains, and that what seemed to be apathetic disregard was really discouragement at the outcome of many unsuccessful experiments in tree planting. The advice and assistance of the forestry inspectors have been successful in removing the long-standing prejudice that trees cannot be grown on the prairie. For three years the work has gone on. This year there were planted under the supervision of the Forestry Branch over 700,000 trees, and applications have been received for about 1,600,000 for planting in 1904. This is in Manitoba alone. And the work done and the good accomplished does not end here. Example is contagious, and the success of those men who have received trees from the Forestry Branch has led many of their neighbors to plant independent of Government aid.

The officials report that their visits of inspection and advice are usually more appreciated than the free supply of seedling trees. The successful work of the branch is due in a great measure to the system of inspection, first, of the land to see that it is properly prepared

for planting, and later of the plantations.

The visit of the agricultural editors is a thing of the past. They came, they saw, they were conquered. There has been in the past a slight tendency on the part of some of the agricultural papers, especially those published at some distance south of the line, to belittle the Canadian North-West, and to predict misfortune for the people now going into that country from the United States. The visit which the editors of a large number of these papers have just made will do much to remove this prejudice. They have one and all been surprised with what they saw here, and will go home with a better understanding of the movement which we call the American invasion, and which is known south of the line as the conquest of Canada.

Hon. Thos. Greenway's dispersion sale of Shorthorns is an event of interest to breeders everywhere. Mr. Greenway has often said that to be "the premier farmer" of Manitoba was a dearer ambition than to be "the farmer premier," as he was called for years. In breeding Shorthorns at least, he has realized his ambition and the Greenway herd has for years headed the list in Western Canada. The announcement that a large portion of this herd would be sold by auction brought almost every breeder of prominence in this province and many from the Territories to Crystal City on the 25th inst. A special train was run from Winnipeg at excursion rates and the number of visitors was so much beyond expectation that there was some difficulty experienced in finding conveyances to take them from the station to "Prairie Home" Stock Farm. Among those present were the visiting agricultural editors of the United States, who expressed great satisfaction with the stock, the sale, and the prices received. Every animal offered was sold and it is a source of satisfaction that almost all remain in Manitoba. A few head go to the Territories, notably Sittytton Hero VII, the famous head of the herd.

Forty-eight animals sold for a total of over \$12,000. Thirty-six cows averaged \$267; three bull calves, \$149, and nine bulls, \$203. Sittytton Hero VII, sold for \$775. He was purchased by Mr. George McKinnon of Regina. Matchless 5th, the highest-priced cow, was sold for \$500 to Albert Lawson, Thornhill, Man. A full list of purchasers and prices will be supplied later.

Dr. Elliott, the new Minister of Agriculture for the Territories, has submitted to the Legislative Assembly a proposal for legislation regarding the registration of stal-

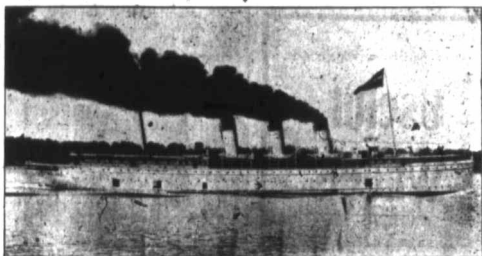
lions in the Territories, which it is hoped will prove of great benefit to the whole country, but particularly to the ranching district. Its object is to give farmers and ranchers an accurate knowledge of the horses standing for service in the country. These are to be divided into three classes: 1st, thoroughbreds and purebreds; 2nd, crossbreds and 3rd, grades. Owners will be compelled to register their animals and copies of the registration certificates must be used in all advertising matter issued by owners. The new ordinance will follow the Act now in force in Manitoba in giving owners of purebred stallions a lien on the offspring as security for payment of service fees. The tendency of such legislation will undoubtedly be to encourage better breeding and to induce horsemen to bring into the country a better class of animals.

The Advantages of Clovering

On June 20th the writer had a pleasant visit with Live Stock Commissioner Hodson, at his farm near Myrtle, Ont., popularly known as Glenhudson. This farm was taken over by Mr. Hodson a few years ago, when it was very much run down. Under his direction and by the employment of skilled agriculturists to do the work, the farm is being gradually brought up to a high state of fertility. Mr. Hodson's plan has been largely one of clovering. His system of rotation is clover, corn or roots, grain and seed down to clover again. The clover is never pastured. One year's hay crop is taken off and the second crop plowed down in the fall for corn or roots the next season. The hay mixture consists of 10 lb. red clover, 3 lb. alsike and 6 lb. of timothy per acre.

This method has worked most successfully, and no better crops are to be seen anywhere than those at Glenhudson farm this season. Mr. Hodson has experimented with the growing of soy beans with very great success. Where the grain crop appears after soy beans, the much stronger and more thrifty condition of the plants after soy beans is quite marked, so much so, that it is hard to account for it. Can any of our readers explain?

Special attention is given to the permanent pasture feature. Thirty acres of Glenhudson farm are devoted to permanent pasture, situated on rolling land sloping to a valley through which runs a splendid stream of sipping water. The permanent pasture mixture used consists of a mixture of Lucerne, alsike, timothy, orchard grass, white clover and blue grass. This has worked well and by having the pasture divided into three ten-acre fields and changing from one to the other every week or two, an abundant and most nutritive pasturage is provided. Three years ago 16 milch cows were pastured on this 30 acres, last year, 30 cows and this year 33. J. W. W.



A lake train running up the St. Clair river. An ideal way to spend Dominion Day.

Western Wheat may reach 100,000,000 bush.

The Manitoba Crop Report

The Manitoba Department of Agriculture has issued the usual June crop bulletin dealing with the area sown to various crops, crop conditions and prospects, live stock, etc. The figures given are interesting and instructive, indicating clearly and concisely the rapid advancement that the province is making. We present a brief resume of the report:

AREA UNDER CROP

The following table of comparison giving the crop areas for the years 1901, 1902 and 1903 gives satisfactory evidence of the natural and expected expansion that is going on in the province. This expansion is taking place in all districts. In the newer districts actual settlement has been the factor at work, while in the older districts settlers are enlarging their crop areas from year to year. In 1903 there are 4,899 acres in rye; 2,357 in peas; 1,993 in corn, and 27,734 in Brome grass.

	1901, Acres	1902, Acres	1903, Acres
Wheat	2,011,835	2,039,946	2,442,873
Oats	689,951	725,060	855,431
Barley	191,009	329,790	326,537
Flax	20,978	41,200	55,900
Potatoes	24,429	22,005	27,168
Roots	10,214	12,175	12,251
Total	2,961,409	3,189,015	3,757,173

In 1902, owing to the late season, farmers were short on wheat acreage, but the acreage under coarse grains was above the normal.

In 1902 there were 563,730 acres summer fallowed and 151,395 acres of new breaking. This year's figures show that the area pendulum has swung back to wheat, on account of the early and favorable seeding time, as well as the large acreage ready for wheat, as new breaking, summerfallow and fall plowing, in all 1,730,995 acres. Farmers have increased this total with spring plowing, as shown in the tables, to 2,442,873 acres.

The acreage sown to oats has not, however, been neglected, for the figures compiled show a fair increase. There will be less than 500,000 acres to summerfallow this year, but farmers in all parts of the province are busy breaking new

land. New land must be broken before increased acreage can be sown. The outlook is that more breaking will be done this year than in any past year in the history of the province.

WEATHER AND CROP PROSPECTS

From the time that farmers commenced spring work ideal seeding weather prevailed. The rains that

commenced in the second week of May were general over the province, and the report of correspondents of crop prospects on the 1st of June is repeated many times in the brief expression "Never better."

The rainfall during the month of May for the past four years has been as follows: 1900, 24 inches; 1901, 91 inches; 1902, 403 inches; 1903, 365 inches. The bearing of these figures on the crop situation will be understood when we recall the fact that 1900 was the "short crop" year.

MISCELLANEOUS STATISTICS

Number of milch cows in province	126,846
Number of cattle fed for beef during past winter	13,983
Number of farm hands now employed	16,902
Number of female servants on farms	3,960
Number of female servants still required	3,153

The bulletin concludes with a list of the creameries and cheese factories in the province and a few pages of quotations from reports of crop correspondents, which indicate that everything is "lovely" in the Prairie Province.

Dedicated to Agriculture

The opening of the Massey Hall and Library at the Ontario Agricultural College, the gift of the estate of the late H. A. Massey, took place on June 18 last. The building, which is of dressed red brick, of two and four stores, occupies a commanding position on the grounds. The corner stone was laid on August 14, 1901, by the late W. E. H. Massey, who conceived the idea of erecting this building for the benefit of the farming community. The building cost nearly \$45,000 and is splendidly

equipped for the purpose intended. The chief feature is the fire-proof stack department for the storage of books.

The building was formally opened by Chester D. Massey, who handed over the keys to the Hon. Mr. Dryden, Minister of Agriculture. Addresses were delivered by Mr. Massey, Mr. Dryden, Dr. Mills, Hon. James Young and several others. Nearly four hundred persons witnessed the opening ceremonies. It was a unique event in the history of the Ontario Agricultural College.



Massey Hall and Library

United States Crops

According to the official crop report for June of the United States Department of Agriculture the spring wheat acreage in that country shows a decrease of 2.4 per cent. The average condition of spring wheat on June 1st was 95.9 as compared with 95.4 at the corresponding date last year, and a ten-year average of 92.9. The average condition of winter wheat was 83.2 as compared with 92.6 on May 1, 1903; 76.1 on June 1, 1902, and a ten-year average of 79.1.

The oat acreage is reduced 3.2 per cent. from the area sown last year. The average condition on June 1 was 85.5, against 90.6 on June 1, 1901, and a ten-year average of 90.2. The acreage of barley is increased 7.1 per cent, and the average condition on June 1 was 91.5 against 93.6 last year and a ten-year average of 88.7. The clover crop, though reports are not definite, shows a less acreage and a condition below the ten-year average.

Of the 14 States having 5,000,000 apple trees or over, but two, Virginia and Tennessee, report conditions above their ten-year averages. The conditions in the other important apple growing States range from 2 to 23 points below the ten-year average. The present prospects for peaches are decidedly unfavorable, only one State, Oklahoma, showing conditions above the average.

European Crops

The foreign agent of the United States Department of Agriculture, writing from London on May 30, states that there had been a marked change for the better in the weather all over Europe. Southern Russia is likely to have, if nothing untoward happens, a large wheat crop. The winter wheat crop of Germany had considerably improved by the middle of May from what it was on April 15. In Austria the winter grain showed a good development on May 15, and good medium yields are expected. In Hungary up to May 20 the development of the crop had proceeded satisfactorily and, with few exceptions, were favorable. In other European countries the crop outlook about the middle of May was hopeful, though in some sections bad weather had injured it very much.

Honest Butter and Honest Seeds

The Hon. Mr. Fisher, Dominion Minister of Agriculture, is, during the present session at Ottawa, introducing some important legislation affecting the interests of the farmer. He is asking the House to consider the advisability of prohibiting the manufacture or sale of renovated, adulterated or process butter, or of oleomargarine, butterine, or other substitute for but-

Useful Wheels

We know of no more useful thing on the farm than a good reliable bicycle. Such a wheel is the—



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that makes all roads smooth, that is to wheeling what the "Pullman" is to railroading.

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A Bicycle so equipped puts your neighbor and the post-office at the turn of a pleasant spin.

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Head Office and Works
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ter, manufactured wholly or in part from any fat other than that of milk or cream. The improper marking of butter will be dealt with in the same resolution, and provision made for the examination of stock or packages. Should an act be passed, one-half of the pecuniary penalties for contravention of the act will be payable to the informant.

Another piece of legislation being introduced by Mr. Fisher is perhaps of greater importance from the farmer's standpoint. This is an act providing that seeds of cereals, grasses, clovers, forage plants or vegetables sold for the purpose of seeding, shall be free from the seeds of certain weeds. He also proposes to establish grades of seeds, of timothy, red clover or alsike, to provide that such seeds offered for sale shall be marked with the seller's name and address, and the name of the kind of seed and the grade, and to provide for the examination of such seeds and their analysis by an official seed analyst.

After so long a period of honesty and upright dealing in connection with the manufacture of Canadian dairy products one may think legislation is not needed at this stage. But there have been cases of late where attempts have been made to introduce the manufacture of these spurious butters into Canada under other names, and new and more stringent legislation on the subject may not come amiss. Even if the threatened danger does not come to anything such legislation can do no harm, while it will still further emphasize the fact that Canada, and Canadians will stand up for honest and genuine dairy products.

The legislation regulating the seed trade is much more far reaching, touching as it does every one who buys and sells seeds of any kind. For several years back the Seed Division at Ottawa has been making a thorough study of the seed trade of this country and has found that large quantities of impure and inferior seeds are being sold every year to farmers in all parts of the Dominion. To some extent this has been due to the demand of the farmer for cheap seeds, but largely to unscrupulous dealers, who, owing to the extreme difficulty there is in detecting impurities in seeds, have palmed off upon the purchaser, impure and inferior seeds whenever possible. To such an extent has this been carried on, that in several districts turnip and similar seeds have been found to contain over 50 per cent. of foreign seeds. It is time then that something were done to regulate this trade. Reasonable legislation looking to the betterment of the trade, should prove of great advantage to the reputable seed merchant, who is endeavoring to provide his customers with pure and high class seeds, while the farming community will be greatly benefited if the unscrupulous fellow is put out of business.



O. C. Gregg

Director of Institutes for Minnesota



Geo. Harcourt

Supt. of Institutes, Northwest Territories



F. E. Dawley

Director of Institutes, New York State



Prof. John Hamilton

Institute Specialist, Washington, D. C.

Institute Workers in Session

International Courtesies—Valuable Suggestions—Able Addresses

The eighth annual meeting of the American Association of Farmers' Institute Workers opened at the Parliament Buildings on June 23rd, under most favorable auspices. The attendance was good, about 600 from the U. S., representatives being present from as far south as Florida and as far west as Regina N.W.T., and as far east as New Brunswick. The President, Prof. W. C. Latta, of Indiana, was present to take charge of the meeting and Secretary, G. C. ... Toronto, was on hand to see that every one was made comfortable and at home.

Throughout work before the convention was the discussion and study of improved and better methods of making farmers' institute work more effective in conveying practical information to farmers and in elevating the home life on the farm. Some excellent papers, prepared after most careful thought and study of the subject were read and the discussions were to the point and of vital interest. A slightly discordant element was introduced, when it was suggested by the representative from Washington, that the printing of the report or statistics in reference to institute work be left to the U. S. Department of Agriculture, as this might tend to deprive the Association of its international character. Later discussion of the matter showed that the members with one accord

were in favor of maintaining the Association as an international organization. Aside from this the gathering was most harmonious and helpful to anyone interested in Farmers' Institute work, both in Canada and the United States. As our space is limited it will be impossible to give more than a very condensed report in this issue.

The opening session on the afternoon of June 23rd, was given up to reports from the heads of institute work in the different states and provinces represented. These dealt briefly with the number of meetings held, the amount of money spent, the number of speakers employed, the general plan of campaign, and new lines of work inaugurated and carried out. The aggregate attendance ranged from about 5,000 in some of the states where institute work is only in its infancy up to 140,000 to 150,000 in districts like Pennsylvania, New York and Ontario, where the work is well organized. The number of meetings held varied in about the same proportion. In general the reports were most hopeful and showed that progress is being made and higher ideals being reached. In many of the states the institute work is directed from the agricultural college or the State Experiment Station.

The evening session of Tuesday was given up to the address of welcome by Premier Ross, the reply

by Prof. J. C. Hardy, of the Mississippi Agricultural College and the annual address of the President.

President Latta's address was a most comprehensive review of what is being done in institute work in America and set forth in forcible terms the qualities an institute worker should possess in order to do the most successful and effective work. While much had been accomplished in the past it was insignificant as compared with what remained to be done in the future. The institute is only one of the many agencies helping the farmer. It, however, has a distinct place and work. The institute work was effective because the personal element was introduced in conveying information. He believed in permanency of organization. But no matter how perfect the organization the speaker was the soul of the institute. The institute speaker must be a student. He must be trustworthy and able to impart the information he has to give in a way that will reach the people and lead them to put into practice what they hear. The same applies to women speakers. Local organization should be advisable rather than initiative in regard to selecting speakers. The best method of conveying information was by the questions and answers after a brief concise presentation of the subject. Where it was possible an object lesson such as a



Andrew Elliott



Miss Blanche Maddock



Miss Laura Rose



Henry Glendinning

Some of Ontario's Institute Workers

practical demonstration in corn judging, etc., was a most effective way of conveying information. He closed his address by stating that the great problem was to show the people that the farmer's life is not drudgery, and teach the farmer that the farm affords perfect conditions for an ideal home. He urged the importance to the farm home of trained, cultured, capable women, and said that the daughter's education should be thorough, liberal, practical and as definitely related to the future as that of the son.

Mr. F. E. Dawley, of New York State, presided at the evening session.

Wednesday, June 24th, was the big day of the convention and the attendance was large, many Ontario Institute workers being present to hear the discussions. Mr. Geo. McKerron, Wis., occupied the chair at the morning session and introduced the first speaker, Mr. Franklin Dye, from New Jersey, who read an able paper on training for institute work. The institute worker should have a liberal general education, be possessed of a large amount of common sense and have an intimate and practical knowledge of the subject in hand. Special training was advisable. To a common school education should be added, if possible, a course at an agricultural college followed by practical farm work and a study of how successful meetings are conducted. The ideal speaker should be of gentlemanly, dignified appearance, chaste in speech, have something to say and speak to the point, and should not use sarcasm in answering a question. He should in short be a teacher and combine all the qualities that go to make a successful one.

In the discussion on this paper some important information was brought out in reference to training workers. In New York State, the workers at the beginning of the campaign are taken for a week or ten days to Cornell University and the Experiment Station at Geneva, in order to familiarize themselves with the teaching and the work being carried on at these institutions. The training which the Ontario workers receive at the Provincial Winter Fair was also noted as being most beneficial.

Organization for institute work was dealt with by Prof. J. R. Taft, of Mich. He believed in permanent local or county organizations to look after the local arrangements. It greatly simplifies the work in each county and has worked most successfully in Michigan.

The discussion on this subject brought out a variety of views on this subject. Supt. Gregg, of Minn., was strongly in favor of the one or central power which had been successfully in force in that state for 16 years. Wisconsin has a similar system. In New York, owing to the large number of granges and other farmers' clubs, it was difficult to organize local institutes without arousing a large amount of jealousy. In Ontario local organiza-

tion is more complete and effective than in any of the States. Supt. Creelman stated that without this permanent organization he could not hold an institute meeting.

Fred. H. Rankin, of Illinois, read a valuable paper, which closed the forenoon session, on accessories to institute work. The special point brought out was that relating to boys' work in that state. A number of boys' corn growing clubs have been organized through which prizes are given for the best corn crop grown on a small plot of ground, the seed being supplied from the central organization. In Illinois a flourishing circulating library is run in connection with the institute system.

Some valuable papers were read at Wednesday afternoon's session. Mr. F. E. Dawley, Director of Institutes for New York State, read a paper on how far it is practicable to conduct a season's campaign in some agricultural interests. Those who attended the meetings wanted to hear the practical and not the theoretical side of agriculture. He was not convinced that they should attempt to teach too much agriculture in the lower grades of country schools, but he did urge that the textbooks should be changed so that their school training would fit them more for farm life.

One of the best addresses of the convention was made by Mr. Andrew Elliott, of Galt, Ont., on the institute from the workers' standpoint. The future of the institute depended upon the worker, who should spend a considerable portion of his time in active farm work. The worker should have tact; no politics and be enthusiastic. At first, farmers looked with suspicion upon college professors, but now farmers want science and scientific methods. Therefore, workers should study and keep posted. The business is going forward and the institute worker must keep ahead or drop out. He must have a better style and be better prepared.

Mr. Henry Glendinning, Manila, Ont., speaking to the same subject said that one of the best ways to interest a meeting was to encourage questions. He thought the evening meetings, being of a lighter character, were not doing as much good as they might do. He advocated holding two day meetings.

In the discussion, which followed, Major Shepherd, of Queenston, Ont., thought that in Ontario the workers were driven too hard.

Other instructive addresses were given in the afternoon by Professor John Hamilton, Institute Specialist, Washington; Mr. George Harcourt, Supt. of Institutes for the Northwest Territories; Mr. C. Gault, Deputy Minister of Agriculture, for Quebec, and others.

LADIES WORK

The evening session of Wednesday was specially a ladies session. Miss Blanche Maddock, Guelph, dealt

(Continued on page 440)

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Smiles Make Hay-making Easier

Handling the Hay Crop

How to Save It—A New Method and How it Worked

The hay crop will probably be lighter than usual this year. It is therefore important that it be cut and cured in such a way as to secure the largest amount of nutrients in the most digestible and palatable form.

To this end it is well to bear the following facts in mind—Early cut hay is relatively richer in flesh-forming elements; it is more palatable and digestible; it has a sweeter aroma; but it has the disadvantage of being much more difficult to cure. Grass, as it approaches maturity, gains considerably in weight; part of this increase consists of starch and sugar, which is valuable to the feeder; and part consists of crude fibre which decreases digestibility, and renders the hay less palatable. Early cut hay is more valuable per ton than late cut; but a larger amount of digestible nutrients per acre is obtained by later cutting.

Late cut hay has also the advantage of being more easily and rapidly cured, thus diminishing not only the labor, but also the risk of loss in harvesting. Early cut hay is especially valuable for sheep, calves, colts and dairy cattle; while for fattening cattle, late cut hay will give as good results. Whether hay should be cut early or late will depend, therefore, on the following conditions:—(1) The stock to be kept; at least enough hay should be cut early to supply the dairy cows and young stock. (2) The season; if the weather be "catchy" it is generally wiser to defer the cutting until somewhat later. (3) The acreage to be handled; if the crop be large, it will be necessary to begin cutting earlier.

WHEN TO CUT

By earlier cutting is meant cutting at or before the time of full bloom. By late cutting is meant cutting between the time of full bloom and ripening. In any case, however, hay should be cut before

it is ripe enough for the seed to shell readily. A crop of mixed clover and timothy hay is at its best if both quality and quantity are to be considered, when from one-third to one-half of the clover blossoms have turned brown.

Hay should be cured and stored as rapidly as possible after cutting. With this in view, it is better to defer cutting in the morning until most of the dew is off. If 30 tons or more of hay is to be handled in a season, a tedder will be found a good instrument. Care must be exercised to avoid storing hay while at all damp from rain, dew, or absorption from the ground. Moisture of this kind will spoil hay much quicker than the water contained in its own sap.

THE GLENDINNING METHOD

Mr. Henry Glendinning has successfully practiced a method of curing clover with good results, which is as follows: Cut when in full bloom, or when the blossoms contain the most honey. Cut in the morning after the dew has dried off. That cut in the morning may be cocked up in the afternoon. The mower should not be run later than 4 p.m., and all cut that day should be into cock before the dew falls. This hay should be put into the barn next day and well tramped into the mows. If any hay should get wet with rain, let it stand in the cocks until thoroughly dry before taking to the barn.

THE ADVANTAGES

The advantages of this method are:—(1) The saving of time between cutting and storing, lessening the risk of damage from rain; (2) All leaves and blossoms, the most valuable parts of the plant, are saved; (3) the hay is cleaner and brighter than that cured in the old way.

Of course, hay cannot be cured by rule; conditions vary. A good method of curing on a gravelly up-

land farm would be quite unsuited to the flatter clay and humus soil. The length of time for which hay should be exposed in the swath will be determined by its ripeness, by the humidity of the atmosphere, the temperature and moistness of the soil, the presence or absence of wind, etc. So that every man must be, in large measure, a law unto himself, and his practice must be governed by personal experience.

It appears to be a fact, however, that when the conditions are favorable, and the necessary skill and judgment exercised, clover may be stored much greener than was formerly thought possible, and that the very best quality of hay may be secured in this way.

GLENDINNING FARM EXPERIMENTS

Glendinning farm experiments of the "Glendinning System" were carefully conducted last year. The hay was clover, the first cut after seeding, and was a very heavy crop. The weather was extremely wet, and it seemed a question of spoiling the hay by allowing it to cure in the field in the old way, or spoiling it in the mow by the new system. About forty tons were cut and put in the mow, following the Glendinning method as closely as possible. It was well tramped, and in a few days tramped again with a horse, this being done so well, that although 60 more tons were placed on top, it settled but very little thereafter. This hay heated quite a good deal, but was not spoiled as badly as we expected on account of the very wet season. As far as had been led, it has proved rather better than that we cured in the field by the old method. A quantity of hay will be cured this year by this system in order to give it a thorough trial.

F. W. HODSON,
Live Stock Commissioner

Depth in Sowing

At the Michigan experiment station tests were made by planting seeds of wheat, oats, flax, corn, barley, clover, peas and buckwheat at different depths ranging from half an inch to a foot. The highest percentage of germination for wheat, flax, corn and clover was at a depth of an inch; for oats, two inches; for peas, four inches; for barley, half an inch; and for buckwheat, two inches. Clover entirely failed when the depth was greater than two inches. Some plants of oats, corn and peas appeared above ground when the depth of planting was eight inches and more.



The Mower, Side-Delivery Rake and Hay-
Leader at Work.

Canadian Produce in England

The Tariff Question—State of Trade

London, Eng., June 13, 1903.

The question which is just now agitating the minds of the people in the United Kingdom is one of preferential tariffs. Public opinion is in a chaotic state and no one seems to know what proposals Mr. Chamberlain will eventually put before them. It is perfectly certain that the people generally are in favor of something of the kind that is suggested by the Colonial Minister, but whether they will be able to agree upon the details of the scheme is doubtful. The corn duty which was imposed last year and has been left by nobody, has been abandoned, for such a trivial point as it really is, was completely overshadowed by the preferential tariffs.

The effect of partial protection upon the English farming industry has not received much attention, but personally, I consider that tillers of the land will not be benefited, but that the good effects will be almost exclusively confined to the manufacturing centres and the large towns. The weak part of Mr. Chamberlain's scheme in popular opinion is the raising of the price of food, so doubtless it will be found that foodstuffs will be treated as lightly as is compatible with the carrying out of the programme and with preferential rates for colonial produce, hence Canadians have a prospect of reaping considerable benefit if the scheme is adopted.

BUTTER OUTLOOK

Canadian butter is only just beginning to arrive, and as no beginning of any importance have transpired values are somewhat uncertain. The butter to reach our shores from the Dominion is much less than was the case at this time last year. Prospects are rather uncertain as regards values, but the market for Danish keeps firm, although the recent hot weather had the effect of reducing the consumptive demand. The low prices of butter are affecting the imports from Russia. Shippers of Siberian butter for the last year or two have reported to have lost money, owing to the low prices at which the products have been offered on the British markets, and some of them decline to make shipments as large as formerly. The German contribution also continues to dwindle, and in the last week of May for the first time since Germany began to export butter to this country, not a single cask arrived.

CHEESE

A good consumptive demand for Canadian cheese has sprung up since the Whitstunde holidays, but in spite of this there is a feeling of flatness and sales have been possible only on buyers' own terms. At present the colored product is making about 50 cents per cwt. more than the white, and the demand has practically cleared the markets. Choicest quality on the spot is making \$13.45 to \$13.90.

BACON

The demand for bacon has been higher during the past two or three weeks, as retailers, ran short of stock and as holders were chary in offering their supplies in hand, the tone of the market strengthened to an appreciable extent. Agents, therefore, instead of having to accede to lower terms as had seemed probable, at once assumed a firmer attitude. For Canadian meats no great inclination to buy has been shown, excepting for tip-top brands. The business transacted has not been large, without any tendency to higher or lower figures till the close, when an advance of 24c. in lean and leanest light weights, accompanied a decline for heavier meats.

Hams have been in more general request and the scarcity of American and Canadian having been unrelieved till late rates have been obtainable.

STOCK PROSPECTS

British stock owners have a better prospect than for some years past, grazing is now about at its best and pastures that had previously undergone a good soaking are throwing up herbage as fast as the stock can eat it. In this respect experience is very different from that at this time last year, when the pastoral outlook was so discouraging and the reserves of fodder so small that considerable encroachments were being made on the crops intended for hay in order to provide material for the purpose of green soiling.

In the dead meat markets business has been dull in consequence of the hot weather and prices extremely variable. Canadian meat suffers from keen competition of Argentine stuff, which is arriving in large quantities. As usual, during the summer months, business is uncertain owing to the vagaries of the weather.

There are no Canadian apples on offer and the final instalments of the Australasian crop will soon reach our shores.

Meetings in the Territories

The Northwest Department of Agriculture held a series of agricultural institute meetings in Eastern Assiniboia during the last week in June. Dr. Fletcher, entomologist and botanist of the Dominion Experimental Farms, was the chief speaker. His subjects were noxious weeds, conservation of soil moisture, injurious insects, and nature study. He was accompanied by Mr. Angus McKay, Superintendent of the Indian Head Experimental Farm, whose practical knowledge of all lines of work pertaining to the farm is well known. The districts covered by these meetings were mostly north of the main line of the C. P. R., with a few points on the line.



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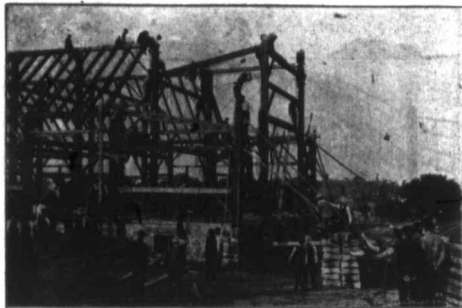
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A Familiar Scene on many a Canadian Farm during June and July. The other side wins.

How to Feed the Rape Crop

In June 1st issue we gave some advice as to the culture of the rape crop. A valuable bulletin on this subject, prepared by J. H. Grisdale, agriculturist, has just been issued by the Central Experimental Farm, Ottawa. It deals fully with varieties, suitable soils, and the uses to which the rape plant can be put. The cost of producing an acre of rape at the experimental farm, outside of land rental and cost of fertilizers, is given at \$6.95. Mr. Grisdale recommends rape as an exceedingly valuable food which can be used as follows: "Sheep on Rape.—Breeding ewes do well on it in summer, and it constitutes a capital feed for 'flushing' or putting them into good condition for breeding in the fall. Lambs thrive upon it, but in their case it is possibly even more imperative than with older sheep or cattle to provide some other pasture (preferably other than clover) in addition to the rape.

"Pasture for Pigs.—It makes a very good pasture for brood sows. A little corn or barley fed in conjunction helps to balance the ration.

"For fattening and growing pigs it cannot be surpassed. They sometimes need to be trained to eat it, but once taught they consume it most freely. An acre sown on good land and handled carefully may be expected to carry from 25 to 40 pigs from June 15 to October. The exact number an acre will carry depends upon the season, the soil and the method of handling. To get the best results the field should be divided into three or four equal parts and the pigs changed over to a fresh part each week or ten days.

"Soiling Pigs.—Of course, greater returns in pounds of pork produced may be secured by cutting the rape and feeding it to pigs in pens, but more labor is required and so, in a measure at least, the advantage is lost.

"Young Cattle and Steers.—Calves relish a small amount of rape at a very early age and do

well on it when fed judiciously. Young cattle thrive on it when it is fed in connection with natural grass pasture. Steers intended for stall feeding or late fall marketing cannot be better cared for than to be allowed the run of a good field of rape.

"Dairy Cows.—Dairy cows respond well to a rape ration, but judgment must be exercised in feeding or evil odors may find their way into the milk pail.

In feeding rape to cattle and sheep care should be taken to prevent bloating. They should never be allowed to enter a rape field when very hungry, more especially should this precaution be observed if the rape is wet from dew, rain, or frost. Once accustomed to the feed, however, and having access to it at all times, little danger may be anticipated. Pigs are not affected in this way."

Killing Mustard with Blue Stone

The Biological Department of the Ontario Agricultural College sends the following information regarding the treatment of mustard with blue stone:

To apply it place an ordinary spray pump, such as is used for the spraying of fruit trees, on a cart or light wagon; drive along slowly through the field applying the solution to the mustard plants in the form of a fine spray. When the field is badly infested, it is advisable to spray the crop in strips in order that no mustard plants escape the spray.

To make the solution put nine pounds of blue-stone (copper sulphate) in a coarse sack or bag, and suspend it in a vessel containing three gallons of very hot or boiling water. The blue-stone will usually dissolve in 15 or 20 minutes. Strain the solution into the barrel of the spray-pump, and fill up with cold water to make 40 or 45 gallons. This is known as the 2 per cent. solution. (1 pound of blue-stone in 5 gallons of water.) Spray the mustard on a calm,

bright day, just as the plants are coming into bloom. At this time most of the young plants² have made their appearance, and all will be killed. Should a heavy rain come immediately after spraying, it will be necessary to spray again.

Commercial blue-stone or blue vitriol costs at the drug stores about nine or ten cents per pound. A barrel of the solution will therefore cost about eighty or ninety cents. A barrel of the solution is sufficient for an acre. Successful results are obtained when the spraying is done thoroughly.

Experience shows that the young wheat, barley, oats or young clover plants are not injured beyond a slight browning for a few days by the blue-stone spray.

Fertilizers for Mangolds

Though not grown as extensively as some other roots in Canada, mangolds are a valuable crop to grow. No other crop can be grown continuously on the land from year to year and get a good yield as can mangolds. At the great Rothamsted Experimental Farm, in England, mangolds have been grown continuously on the same piece of land for 27 years. The results of these experiments are published in the last issue of the Journal of the Royal Agricultural Society and are summarized as follows:

"Mangolds can be grown continuously on the same land without injuring the tilth of the land or the health of the crop.

"A liberal dressing of farmyard manure forms the best basis of the manure for mangolds.

"The crop will further respond to considerable additions of active nitrogenous manures to the dung, particularly of nitrate of soda.

"A free supply of potash salts is essential to the proper development of the mangold, hence a specific potash manuring is desirable even when dung is used in large quantities, and on a strong soil initially rich in potash. When nitrogenous manures are used in additional dung, the potash salts should be increased pro rata, in order to maintain the health and feeding value of the crop and to bring it to maturity.

"In conjunction with dung, phosphatic manure is hardly necessary and will give little appreciable return especially when the crop is grown in rotation.

"As soluble alkaline salts are beneficial to the mangold crop, either as direct foods or economisers of potash, a dressing of salt should always be included among the manures for the mangold crop."

Based upon these findings a liberal dressing for mangolds would be about 5 cords of good stable manure, 500 lbs. nitrate of soda, 500 lbs. sulphate or muriate of potash, and 200 lbs. common salt per acre.

Two Kinds of Hired Men

The hired help question has been very much on the front for a month or two back. The farmer who has good help on hand may consider himself fortunate. Many have to put up with inexperienced help, a great deal of which is dear at any price. The two kinds of

help on a farm are very well described by a hired man in one of our American exchanges. He says: "There are two kinds of hired men. One is a time worker, and one is a worker. The first will perform his duties fairly well when the boss is around, but when out of sight will take it too easy. If quite safe from being espied, he may lie down and take a nap. To make the time go more quickly. His one object is to pass the time away. This man is expensive at the lowest wages. The other man does the same service when his master is present as when he is absent. He endeavors to do all work assigned to him in the best and most speedy manner. He will not sit down and wait for orders, but when one job is finished will seek his master for further orders. His greatest delight is to see his employer contented with his services. In short, he works to his employer's interest. This man is cheap at the highest wages."

To Raise Quarantine

The U. S. Department of Agriculture has completed an investigation of the States now under quarantine for foot-and-mouth disease and finds no cases of the disease. A reward was offered of \$230 to any person reporting before June 30th the existence of any specific case of foot-and-mouth disease in either Massachusetts or New Hampshire. If no cases are reported by July 1st the quarantine will be removed from New England ports.

Fitting Horses for Market

It is one thing to breed and raise horses, and another to properly fit them for market. The farmers of this country lose hundreds of dollars because they sell unfitted or hardly fitted horses. On the other hand there are a number of people making a good living by buying these unfitted horses from the farmer and putting them in proper marketable condition. This should not be. Why cannot the farmer who breeds and raises a horse, put him in proper condition for bringing the highest market price? He can do so by a little careful study of the subject and the use of good judgment and common sense.

To stimulate an interest in it, and to secure the best available information on this subject, The Farming World is offering liberal prizes at the Dominion Exhibition to be held in Toronto next September, for essays on "Fitting Horses for Market." If our readers have any useful ideas on this subject that they would like to get well paid for this is their opportunity. It will not cost you anything to try. Write Dr. Orr, Manager, 70 King street east, Toronto, for a copy of the prize list giving full particulars as to our prize essay competition. Four different sets of prizes are given for four different essays on four different subjects. You therefore have a wide choice. Don't fail to secure a prize list.



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Guelph, Ont.

Ottawa, April 6th, 1903.

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It runs very lightly, skims well, and separates beyond the capacity guaranteed by you.

I have no hesitation in saying that Canadian farmers would find it to their interests to buy machines made in Canada, rather than those imported from foreign countries and assembled in Canada. The reasons are obvious and need no explanation.

Yours very truly,
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Southdown Ram, Jackson "61," 14,377. Sired by Easton Lad (Imp.). His grand sire was that noted winner, Norwich Bess. He is a fine specimen of the breed. Bred and owned by John Jackson & Sons, Abingdon, Ont.

Southdowns as Mutton Sheep

As may be seen by the above life-like illustration the Southdown possess all the good qualities that go to make an ideal mutton sheep of the very highest type—with a constitution and form that enables them to make the largest possible return for the food consumed. A study of this illustration is a study of the Southdown breed. A sheep of this form, no matter of what breed, must be a profitable sheep to the breeder and feeder. See the great width in front, the thickness through the heart, no lack of strength for the vital organs to perform their work effectively, the well covered back, where the valuable cuts are obtained, the fine sprung rib so desirable in any animal—the deep flanks and long quarters. He stands on short legs with exceptionally good legs of mutton.

A breed of sheep that will put on a pound of mutton at less cost and of greater value than any other, must be the most profitable. For these reasons the Southdown is the sheep for the tenant farmer. They are the sheep for the small farmer who only keeps a few sheep to pick up the weeds and wastes of the farm, they are the sheep for the large breeder as they herd better in large flocks than most of the mutton breeds. They will keep in good condition on bare pasture and respond quickly on a generous diet.

Their beauty of form places them in the nobleman's park; they are the poor man's sheep for the dollars that are in them; they are the rich man's sheep on account of the superior quality of their flesh, where quality rather than quantity is wanted. They have played an important part in improving all the other down breeds; their value for crossing is acknowledged; they occupy the same position in

that respect among sheep as the shorthorn does among cattle.

The greatest demand for Southdowns in this country is in the east, adjacent to the better markets, where they are willing to pay a higher price for a superior quality of mutton and lamb.

While they would make an ideal range sheep there are several reasons why they are not so much sought after for that purpose. One is that so many count by the head instead of so much per lb. Southdowns, however, will make as many pounds on a given amount of food consumed as any other breed, while in all good markets the smaller carcasses bring the highest price per lb. Another reason, perhaps, is that there are not many culls in the flock, making it difficult to pick up a car load of rams at a low figure in any one locality. Another and perhaps the principal one is that the demand in the East where Southdown breeders cater to the fancy lamb trade, is about equal to the supply, and this is the field that breeders of Southdowns should cultivate most.—John Jackson, President American Southdown Association.

Store Cattle High in Scotland

The Glasgow Herald, in a recent issue, states that farmers in Scotland are complaining bitterly at the present prices of store cattle, which are such that they could only be fitted and fattened for market at a loss to the feeder.

The Scottish farmer has been most bitter in his opposition to the embargo at present in force against Canadian cattle and most persistent in his efforts to have it removed. But so far his efforts have been without success. Whe-

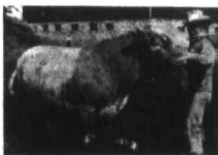
ther the removal by death of the Hon. Mr. Hanbury, late chairman of the Board of Agriculture for Great Britain, will affect the situation or not will remain to be seen. Perhaps his successor may take a more lenient view of the situation and relax sufficiently to enable the oppressed Scottish farmer to obtain his store cattle from Canada.

While we believe it would be in the interests of the farmers of olden Canada to feed and finish their cattle for market themselves, the removal of the embargo would help very much the cattle trade of the West by opening up a profitable market for store cattle from the ranches. The cattle trade of Ontario and the provinces east is weak in that cattle are not properly fitted for market. This has been the general complaint of cattle dealers for several weeks back, especially with the cattle coming to Toronto market, and who have been compelled to go to Chicago for cattle suitable for the export trade. This should not be. It will pay our farmers to properly finish their cattle before putting them on the market and this should be done whether the embargo is removed or not.

However, let every effort be put forth to secure the removal of the embargo against Canadian cattle entering the British market. Its removal should not interfere with the proper finishing of fat cattle for market here, while at the same time it will greatly stimulate the range cattle trade of the West.

Quarantine Removal

For the purpose of the St. Louis Exposition it is announced that the United States Government has granted liberal concessions in the matter of tariffs, and the quarantine regulations have been so amended as to permit the landing of live stock for exhibition with a minimum of trouble. Canadian animals will be admitted on the certificate of a Canadian official veterinarian, stating that they are free from disease and have not been exposed to contagion within 90 days. Horses from Great Britain and her dependencies will be admitted by passing inspection at the port of entry.



Scotland's Hero 47861. Age fourteen months. Bred by J. Ross & Sons, Streetsville, Ont., and recently sold to Jas. Waddell, Fox Warren, Man., to head his herd of Shorthorns.

In the Dairy

Look After the Milk

July and August are the months when bad taints in milk are most prevalent. Patrons of cheese factories and creameries should therefore give extra attention to the milk during these months. Cleanliness in the milking, in the care of milking utensils and in handling the milk should be strictly observed. In warm weather most of the germs causing bad taints thrive best, and any filth or unclean spots left on the pails and cans are good places for them to grow in. Hence the need for the strictest attention to cleanliness.

There is some difference of opinion as to the real value of aerating milk. But until some better plan is evolved we would advise aerating all milk thoroughly immediately after milking. When this is done the milk should be set in a place where the atmosphere is pure to keep over night. As to the value of cooling milk there is also a difference of opinion. To be on the safe side we would advise cooling the milk after it has been aerated to below 70 deg. Fahr. and on very hot nights to 60 deg. or under.

The farmer who supplies milk to a cheese factory or creamery cannot be too careful in handling the milk product, for upon this depends very largely the quality of butter or cheese made from it. Look after the milk.

Farm Separators Increasing

The farm separator is obtaining a strong foothold in the central Western States. In Iowa the hand separator cream gathered creamery is gaining ground very fast, so much so that interested parties predict that it will in time supplant the separator creamery entirely. The responsibility for this increase rests largely with the separator agents who have been able to induce the farmers to buy separators by the hundreds and who can blame them.

The advantages of this system are summarized by an Iowa authority as follows:

1. Better skimmed milk for feed.
2. The milk can be skimmed and fed at regular hours of hand power.
3. Not so much to haul to the creamery, hence less time and less cost.
4. The capacity of a plant can be increased.

The chief disadvantages are:

1. A poorer quality of butter.
2. The application of hand power in the separation of milk.

The same authority then pertinently adds:

"If the hand separator system is the coming one, and no effective and systematic restraint can be wisely administered, then it is time for the friends of good butter to come out and give helping hand toward improving the quality of cream, so that a quality of but-

ter, suitable to the taste of consumers and commanding the highest market price, can continue to be manufactured."

This last paragraph contains a lot of good common sense that some of the leading dairymen in Canada should profit by. As we understand the situation, the cream gathered creamery in this country has come to stay, and to attempt to check its growth by arbitrary measures as was done at Montreal early last month is a most foolish proceeding. The most reasonable and rational thing to do under the circumstances is to devise ways and means to improve the quality and allow farmers to retain the system.

Powdered Milk

The Department of Agriculture at Washington, are investigating a new discovery which promises to be of much importance, especially to dairy farmers. It is that of manufacturing flour from milk. It is said that the apparatus has been perfected by which milk can be reduced to a powder, which is not sensitive to heat and other conditions which vitally affect milk in its natural state. It is estimated that the cost of producing this milk flour will be about 25c. per 100 quarts and flour from skimmed milk will probably be sold at 1 1/2c. a lb. Converted into flour skim milk will have an added value. The secret by which milk flour is manufactured has not yet been made public. It is an altogether different product from any of the milk products now on the market. No acid or lye is used in the manufacture of milk flour. The new produce will be shipped in tins, bags and barrels.

Want Licenses for Cheese and Butter Makers

The Montreal Produce Merchants' Association have asked the Quebec Government to appoint a commission to examine butter and cheese makers' and issue licenses to competent men, these licenses to be granted to such persons as upon careful examination are found qualified to manufacture cheese or butter of first-class quality; to judge correctly of the quality and condition of milk offered by different patrons, and to carry on the business in such a manner that the interests of all concerned will be protected.

The association further asks that the Government forbid any person who does not hold such a license, to manufacture cheese or butter at any factory at which milk from various patrons is received, and at which the proceeds from all sales of the products are distributed among the patrons in proportion to the quantity, or to the quantity and quality of the milk supplied by them severally.

The SHARPLES Separator.

There are two kinds of cream separators and only two.

OURS and the **OTHERS.**

The **SHARPLES** is the best.

The patent protected kind. The best of its kind.

The best without equal. The best with them.

It saves you money. It saves you time. It saves you labor.

It saves you space. It saves you room.

It saves you trouble. It saves you worry.

It saves you pain. It saves you grief.

It saves you heartache. It saves you sorrow.

It saves you tears. It saves you sweat.

It saves you blood. It saves you life.

There is a lot of real difference in the kind.

and it amounts to big money in the long run.

Investigate. Separators are different.

From Catalogue No. 100.

P. M. SHARPLES,

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Get an Empire.

Examine all the Cream Separators on the market; look carefully to their construction; then select the one which you think will do the best work and give you the least bother. We believe that's the

EMPIRE

Easy Running Cream Separator.

Guaranteed to run more easily, to be easier to clean and last longer than any other. It's for you to decide. Try it first. Get our free book.

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Lock Box 1016, Toronto, Canada.

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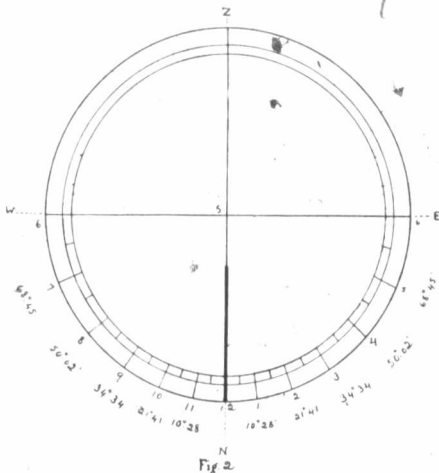
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St. Mary's, Ont.

PRIME VERTICAL
- SUN DIAL -



The Making of a Sun Dial

A sun-dial is a miniature earth. To show the analogy between our planet and the celestial sphere and a sun-dial the projection, Fig. 1, is shown. Let C represent the earth's centre, or of the spectator stationed there; Z is the zenith of a point of latitude, 46.27 degrees and N the nadir and are the poles of the spectator's national horizon. P.P. the poles, the north one elevated to height of the spectator's latitude and the south pole depressed to the same degree; HP the altitude and SP the depression; EQ the equator, perpendicular to the earth's axis, PP.H and S are north and south, and WE the west and east points, and AQ the latitude of the place, A, and PA and PN the co-latitudes in opposite directions. Now look at our dial, Fig. 2, C is the earth's centre; Z the zenith and N the nadir EW east and west points or the prime vertical. P, Fig. 3, is the south pole, PN the co-latitude, as before, and PC the axis of the southern sphere. The angle, C, of the stile, Fig. 3, is just the co-latitude of the place, 46.27,

and represents the distance in degrees of the pole P, from the nadir, N.

The illustrations show very explicitly how a prime vertical sun dial is made. This one is of course constructed for latitude 46.27. The hour lines are different for different latitudes. The only difficulty then in making a sun-dial is to get the distance in degrees of the hour lines from N or zero. The rule however is simple.

The six hours of 90 degrees on either side are 15 degrees each. The first hour being 15; the second, 30; the third, 45; the fourth, 60; the fifth, 75 and the sixth, 90. It therefore requires five different solutions to get the correct hour lines for every given latitude, except at the equator, degrees latitude, when the hour lines are exactly 15 degrees apart.

To get the first hour line, here, 10.28 add the log cosine of the latitude and the log tangent of the hour angle, eliminating 10, the sun will be the log tangent of the hour line. The second hour line is got in the same way, using the same log cosine, but substituting for log tan. 15, log tan. 30, and so on until log tan. 75 is completed. A table of logarithms is all that is required.

Find the angular distance of the hour lines in succession from the hour line of noon, NC, for a place in latitude 39, for a prime vertical dial.

For 1h. P.M. or 11h. A.M....	11.45
" 2 " " 10 "	24.10
" 3 " " 9 "	37.51

For 4h. P.M. or 8h. A.M....	53.23
" 5 " " 7 "	70.58
" 6 " " 6 "	90.00

Both stile and dial is drawn to the same scale, so that there will be no difficulty in adjusting them. The stile is best made of sheet brass, or galvanized boiler plate. The diameter of the dial plate here shown, is 6 1/8 inches, and the high of the pole of the stile is 3 1/2 in. This makes a good size. The heavy black line on the dial plate shows where the foot of the stile is set in. For a dial plate a piece of pine board, well painted, white in color, with black lines for hour lines and figures, made with india ink, answers very well. When completed the dial is hung perfectly plumb, and due east and west, so that at high noon the sun's shadow is at CN. A dial gives the true apparent time for any locality for which it is constructed.

Noticing the figures again, our dial plate, Fig. 2, is the line ZN, Fig. 1; our stile, Fig. 3, is the co-latitude, PCN, Fig. 1. The making of a sun-dial is a nice study in astronomy.

J. A. Macdonald,
Prince Edward Island.

Very Quick Work This

The members of the South Waterloo Institute, who attended the annual meeting held on the farm of Mr. Geo. R. Barrie, on June 8th, a short report of which appeared in last issue, witnessed a rather novel exhibition of skill and dexterity. Mr. Barrie's splendidly equipped threshing outfit was put to the test. About a quarter past four the men began to thresh a load of wheat. When this was done the grain was ground, making Graham flour. Then there was a baking and by half-past five little round scones were passed around at luncheon.

The threshing outfit is operated by a 18 h.p. Gould, Shapley & Muir gasoline engine. The threshing machine is a Waterloo Chief. The grain is cleaned and carried by elevators to an overhead granary. The chaff drops down and is carried to the chaff house by a blower. The straw is carried along and falls into a cutting box where it is cut, and then carried to the very peak of the barn, dropping into an immense mow. Only three men are needed to carry on this operation.

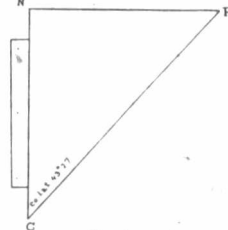
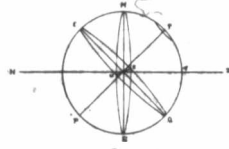


Fig 3 - stile

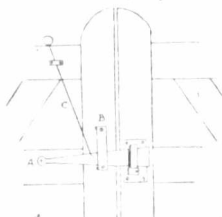


Showing the analog between the sun dial and the earth and celestial sphere.

Farm Conveniences

Utilizing Old Hinges

The accompanying sketch shows how old hinges, which often accumulate on farms, may be utilized



as latches for gates. The sketch explains itself. B is the T end of the blade A, simply filed off. C is a stout wire, and is used for lifting the latch.

To Pull Up a Post

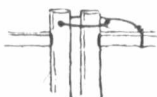
Take the hind wheels of a farm wagon and a chain with a ring, or better still, with a large hook at one end. Fasten the chain to the pole in front of the axle in such a manner that when it is passed back over the axle and bolster the ring or hook will about touch the ground, a little longer or shorter, according to the size of the post



to be pulled up. Then back the axle against the post, raise the coupling pole toward the post, against which it may lean, place the chain like a noose round the post, slipping it down until tight, and bring the pole forward and to the ground. This will raise the post fully a foot, and generally will thoroughly loosen it. If the post is very deeply set and hard to pull out, it may be necessary to repeat the process, slipping the noose further down.

A Safe Gate-Latch

The ordinary gate-lastener on a farm is a loop of metal often wire, which runs through a small auger-hole in the head of one post and falls over the head of the other. With many farm horses and cows this is no better than no fast-



ening at all, for they can open it almost as quickly as a man can do. To remedy this defect a plan has been hit on which completely baffles the most astute horse or cow gate-opener. It consists in fastening a wire to the top rail of the half-gate as shown in our sketch or to the top rail of the fence if it is a single gate, and leaving one end, which is bent in the form of a downward hook. This, passed over the loop of the gate-lastener, makes it thoroughly effective. Stout wire is used for making this hook, in order that it may retain its shape. If this cannot be obtained on the farm, the wire at hand is doubled and twisted.

To Prevent a Cow Sucking Herself

The accompanying device shows a necklace made from old broom or fork handles strung on a strap

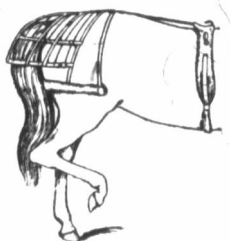


and buckled around the neck to prevent a cow sucking herself. Fit it to the cow, and make the sticks long enough to keep her from putting her head on the side, but be sure they are not long enough to chafe the shoulders or throat when the head is not turned.

To Keep Horse's Tail Quiet

Buckle two lengths of five-eighths inch harness strap from hip strap around tail above breeching with easy loose fit over the dock. From buckle of crupper on each side fasten a perpendicular strap on each side of rump. Run leather

net laces two inches apart up and down from bottom to strap on top of tail. See Fig. Any driver



Wire Brush Harrow

The accompanying description of a brush harrow was shown at the Smithfield show (England), last winter. It has been specially designed for harrowing pasture, and for light arable land. It kicks out moss and rubbish, and spreads more hills and manure; whilst on arable land it is a capital leveller and produces a fine tilth. When used for seed covering, a nice level surface ensues, the seed being covered at a uniform depth, whilst rubbish is raked to the surface. Young weeds are killed by its application, and it promises to be of great service for destroying mustard in young grain.

Though the steel wires are slight, they can withstand a great amount of wear, and should a few get damaged, they can be easily taken out by a slackening of a nut and replaced by new ones. Should the



brushes get set in one direction through constant work they can be easily turned around in the frame. By means of the cross-bar shown in the illustration the width of the implement can be adjusted; moreover it can, when desired, be folded up like a camp stool.

There is no hope for a man the minute he becomes satisfied with his own work.

What John T. Gibson, Director Dominion Sheep Breeders Association, Says About Zenoleum Dip:

"I find Zenoleum very good both for sheep and cattle. Keeps them free from ticks and lice and is also a very good disinfectant."

JOHN T. GIBSON, Denfield, Ont.

Send for copies of "Zenoleum Veterinary Advisor" and "Piglet's Troubles" and see what others say about it. Books mailed free. Sample gallon of Zenoleum \$1.50, express prepaid. Five gallons \$6.25, freight prepaid.

ZENNER DISINFECTANT CO., 112 BATES STREET, DETROIT, MICH.

WHEN WRITING ADVERTISERS, PLEASE MENTION THE FARMING WORLD.

Nature About the Farm

Edited by C. W. Nash

Hawks and Field Mice—Orioles—Onion and Cabbage Maggots.

The editor of this department will be glad to identify for subscribers any specimens of natural history sent to this office for that purpose, and will answer any questions on the subject that may be asked through The Farming World.

BIRD NOTES.

Of the other three beneficial hawks the broad winged and red shouldered are not sufficiently abundant to be of great economic importance, though they both breed here and if they were not molested, would soon increase to such an extent as to become valuable. The beautiful little sparrow hawk, which may easily be distinguished from any of the others by its smaller size and red back is, or used to be, the most abundant of all our hawks. In fact, a few years ago there was scarcely a farm having a wood lot which was not frequented by a pair of them. When feeding it either hovers over the fields scrutinizing closely every inch of the ground below it, or stations itself upon some fence post or stump and watches for some movement in the grass, which shall betray the whereabouts of a mouse or grasshopper, of both of which it destroys great numbers. Although mice and grasshoppers form the bulk of this hawk's food, it varies its diet occasionally with a small bird, frog, snake, and any kind of insect that comes handy, and when food is scarce in the spring will accommodate itself to circumstances very readily. I had often seen them frequenting the newly turned earth in market gardens and could not for some time discover what they got there until, in April, 1895, I shot one which had been feeding in an old pasture field. This bird's stomach contained a large number of cut worms. I counted thirty perfect ones, and there were parts of others. The hawk's claws and beak were covered with moist earth and its body was very fat, showing that it had not been driven to digging out the cut worms by hard necessity, but that they, no doubt, resort to places where underground grubs can be obtained, because they like them. Newly ploughed or cultivated land affords an abundance of these insects, and the hawks visit it to obtain them. The sparrow hawk is a summer resident only, arriving here during the first week in April, if the snow is gone, and leaving us about the middle of September. It nests in any convenient hole in a tree, frequently selecting one that has been previously used by one of the large woodpeckers. The cavity chosen is generally at a good height from the ground; in it are deposited four or five eggs,

yellowish brown blotched with dull red and brown. While the young are in the nest the parents are kept remarkably busy in satisfying their voracious appetites and are then compelled to hurry to and fro between the fields and the nest with food, from sunrise until dark. These little hawks have as much boldness and dash as any of their family, and do not hesitate to attack any eagle or falcon that may venture into the vicinity of their nesting place, nor will they desert from their onslaught until the enemy has retreated to what they consider a respectful distance from their domain. Sparrow hawks are peculiarly birds of the farm, becoming, if unmolested, very tame and familiar. They will follow the



The Baltimore Oriole

plow up and down the furrows, watching closely for every mouse or grub turned out and pouncing upon it within a few feet of the plowman. In Manitoba, where they were very abundant, I have often seen them catching mice and grasshoppers about farm buildings and straw piles without their showing the least alarm at people working upon them.

The Baltimore orioles seem to be more abundant this year than usual. I hope this is the case all over the province, for no bird is more valuable to the fruit grower than they are, for they obtain their food entirely amongst the branches of trees and are particularly partial to orchards, where they find an abundance of leaf-eating caterpillars and beetles. They also eat numbers of moths which frequent the trees for the purpose of laying their eggs; in doing so, they materially assist in keeping down the pests, which so often defoliate the trees and disfigure the fruit. Every female moth eaten before she has laid her eggs means the destruction of a whole brood of caterpillars before they have had an opportunity to do mischief. Since the publications by the Department of

Agriculture of "Birds of Ontario in Relation to Agriculture," I have received a number of reports from farmers and fruit growers as to the valuable work done by orioles in clearing of tent caterpillars. In several cases my informants state that they watched the birds at work in their orchards day after day destroying these pests and that in the end they completely cleared the trees of them. Orioles commonly suspend their purse-like nest from the end of drooping branches of the willow and elm trees, where they are tolerably safe from most of their natural enemies, but on farms, where they are secure from persecution, they have latterly changed their habits in this respect and frequently hang their nests from forked branches of apple trees and constitute themselves guardians of the orchard.

INSECT LIFE.

Although the work of the onion maggot, to which I referred in last issue, is only too well known in our gardens, the fly which produces the maggots is not often recognized. In length it is about a quarter of an inch, expanding across the wings to about half an inch. Its body is ashy grey with a few black hairs. There are three dark lines on its throat and a row of blackish spots along the abdomen. Its wings are clear.

The adult flies emerge from the chrysalis stage early in the spring and deposit their eggs upon the leaves of the young onions near the surface of the ground. When hatched the larvae work their way down to the bottom of the bulb and feed in it, five or six generally being found together. In about two weeks they are full grown and then transform in the ground to pupae. In about a fortnight the flies again appear and quickly lay their eggs for a second brood. As the leaves are now high above the bulb the fly lays her eggs upon the bulb itself. It is possible that sometimes a third brood is produced, as I have found the maggots still feeding quite late in the fall. This insect passes the winter underground in the pupal stage. I have found that watering the plants frequently with soap solution, as I previously directed, and dusting the beds over with wood ashes stimulated the growth of the plants and effectually destroyed the insects.

The rose chafer is very abundant here this season, but as the house sparrows are feeding their young with it, I do not anticipate any serious injury from them.

A remedy for creaking shoe soles is to allow the shoes to stand overnight in a pan containing a small quantity of olive oil, so that they will become saturated with it. This will protect them from dampness, and if the soles are carefully wiped off they will not grease carpets or rugs. This treatment is especially intended for walking shoes.

The Sugar Beet World

Devoted to Sugar Beet Culture in Canada

Sugar Beetlets

Seeding is all finished.

Don't be afraid to cultivate.

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With the beet crop it is always best to do the best.

Don't let well enough alone—do it just a little better.

Seeming difficulties often become the grandest triumphs.

The man who knows the most about farming is not on the street corner telling about it—he's at home down 'it.

A man is known by his deeds. Accomplish what you set out to do. Don't let the beet crop put you to the bad.

Sugar Beets and Soil Fertility

Growing sugar beets is in the end no more injurious to the soil than the growing of most of our common crops. Any crop grown takes fertility from the soil, but if the beet leaves are fed on the farm, and if the tops cut off the beets are likewise fed, as well as the culls, and if finally the pulp residue is brought back from the factory and fed on the farm, then very little fertility indeed is lost. Beet growing is not one-fifth as hard on the land under such conditions as is growing and selling hay or straw, so often practised by farmers. The beet root takes a great deal of water from the soil, and this perhaps shows on the next crop unfavorably. Beets should always be grown in rotation. In Europe the farmers of Germany, France, Belgium and other countries have in some regions been growing beets successfully and profitably for the last generation. During the last ten years the business here increased enormously.

The beet growing regions of the old world have been the most prosperous of any in Europe, and the farmers have steadily improved their farms. They keep more stock where beets are grown in Europe nowadays than they kept before they grew beets. This fact is a very marked and striking one. I have visited the beet growing regions of several of the old world countries and know that the farmers have grown beets and the country has grown prosperous and rich because of this crop, and more live stock is kept than ever before.

Prof. W. A. Henry.

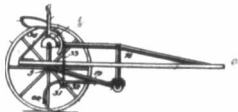
Beets in Clumps

The tendency of beets to grow in bunches is because each "seed" is really a bundle of seeds wrapped in the woody fibre. Thus from one to six plants spring from each seed ball, and separate planting is practically impossible. The clumps of young plants make thinning a difficult matter and injurious to

those that remain. Some beet growers lessen the trouble by cracking the seed balls in a coffee mill. It is also proposed to attempt by selection to secure seeds each producing only one plant.

A New Beet Weeder

Mr. Joseph B. Strehl of Michigan has invented a beet weeder, comprising an axle having supporting wheels, a frame connected to the axle and extending above and for-



wardly from the axle, spring arms pivotally connected to the frame in advance of the axle and having hoes at their lower ends, bars connected each with a group of arms, levers mounted upon the frame, and connections between each lever and a bar for raising and lowering the hoes.

In the Beet Field

All beets should be cultivated once if not twice, before blocking

and thinning starts, and the beets should show four good leaves before ready. There are several good ways of doing the work. One is to take a long handled hoe about seven inches wide, block out and leave but one plant as nearly as you can in one place. Then in two or three days or a week, follow with boys and girls and insist that they take out all but one plant in a place, and be sure not to injure those that are left.

Another way is to have the boys, girls or women use some kind of a small hoe, and block and thin as they go, insisting that they hoe the ground well between the plants, kill all weeds and also any beets starting, thus leaving the single plants from seven to eight inches apart. The best beets and the best tonnage comes from beets being eight to ten inches apart, in rows. It is a mistake to think you will better results if you leave them closer, as this has been tried time and time again and cost more to take care of the crop.

After you have finished blocking and thinning three or four days, the ground should be cultivated again, as it has become packed in this work and the blockers and thinners do not hoe out the centre of the row of weeds and the cultivator will clean them out much easier at this time.

In case of a rain, the roller may be omitted until another crust forms.—Mich. Sugar Beet.

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THE HOME WORLD

"Contentment is the best riches."



The home and nation are closely related. Canada's hopes are her pride, and the privileges of Canadian citizenship form one of the greatest blessings of those homes. Thirty-six years ago, on the first Dominion Day, a new nation came into being, and nearly every Canadian household should look back to that day with national pride. A favored people, in a favored land, we have privileged homes, and what our social and family life are to-day is largely a result of the past. Let Dominion Day then be a home festival; be patriotic, and be thankful, and let these things be felt and taught in our homes.

The Family Finances

Hall the troubles of married life arise over money matters, and they might all be prevented by a fair understanding in the outset.

This is a very important point. If a woman has no independent income, and her own and no way of earning money after marriage, she ought always to have a certain stated and regular allowance each week or month for her own spending money, to dispose of as she pleases.

A wife ought to know just what her husband's position is financially, and there should be a fair understanding of what the household can afford for the housekeeping expenses, for clothing, etc. Some men think if they have made a liberal allowance for the household expenses that that is all which can reasonably be required of them. If their wives have the handling of this money they often give it to them as though it were for their own private use, and consider any further sum bestowed upon them as so much free grace. If a new dress or bonnet be needed it must be asked for, and perhaps coaxing or even tears or pouts are necessary before it is forthcoming. An ideal way of distributing the household funds is for the husband to say: "Our income is so much. Let us allow of this sum so much for our household expenses, and this you shall spend and keep account of. So much for clothes for me, so much for you; so much for my spending money, so much for yours, and so much to put in the bank against a rainy day."

Women treated thus fairly and honestly will spend the household funds judiciously, keep their own clothing bills within bounds, and be content with their allowance of spending money if it be only twenty-five cents a month. Try it and see, you men who keep your wives in ignorance of your real financial standing and then groan over their extravagance, or ye who never think of putting a penny in your wife's poor little purse unless she asks you for it.

House or Home

A house is built of bricks and stone, of sills and posts and piers; but a home is built of loving deeds that stand a thousand years. A house, though but an humble cot, within its walls may hold a home of priceless beauty, rich in Love's eternal gold. The men of earth build houses—halls and chambers, roofs and domes—But the women of the earth—God knows, the women build the homes.

A Snashiy Woman

What a blessing to a household is a merry, cheerful woman—one whose spirits are not affected by wet days or little disappointments, or whose milk of human kindness does not sour in the sunshine of prosperity. Such a woman in the darkest hours brightens the house like a little piece of sunny weather. The magnetism of her smiles and the electrical brightness of her looks and movements infect every one. The children go to school with a sense of something great to be achieved, her husband goes into the world in a conqueror's spirit. No matter how people annoy and worry him all day, afar off her presence shines, and he whispers to himself: "At home I shall find rest." So day by day she literally renews his strength and energy, and if you know a man with a beaming face, a kind heart, and a prosperous business, in nine cases out of ten you will find that he has a wife of this kind.

The Home Comer

During the first four days of July there is to be held in Toronto a "Home Comer's Festival," a reunion of former Torontonians now resident in various parts of America. The committee in charge arranged a competition for poems commemorating the occasion, the first prize in which was won by Mr. Duncan Campbell Scott, of Ottawa. We have pleasure in publishing this beautiful poem, which ranks among the best of Mr. Scott's literary work, and whose sentiments can be appreciated by Canadians anywhere.—EDITOR.

FROM the smoke where cities welter,
From the quiet glens of earth,
To the land that gave us shelter,
To the land that gave us birth,
We, the wanderers, the dreamers,
That for lore or fortune roam,
In the gladness of the morning,
In the light, come streaming home.

Men whose fathers, mocked and broken
For the honor of a name,
Would not wear the conqueror's token,
Could not salt their bread with
shame,
Plunged them in the virgin forest,
With their axes in their hands,
Built a Province as a bulwark
For the loyal of the lands.

Men whose fathers, sick of dead lands,
Europe and her weary ways,
Saw the fading emerald headlands,
Saw the heather quenched in haze,
Saw the coast of France or Flanders,
Like a glimmer sink and cease,
Won the ample land of maples,
The domain of wealth and peace.

Won it by the axe and harrow,
Held it by the axe and sword,
Bred a race with brawn and marrow—
From no alien over-lord.
Gained the right to guide and govern,
Then, with labor strong and free,
Forged the land a shield of Empire
Silver sea to silver sea.

Fighting makes the heart grow louder,
Labor makes the heart grow vain,
Still, wherever we may wander
We are of the lion strain;
We may trample foreign markets,
We may delve in outland loam,
Yet when memory cries and calls us,
All our hearts come leaping home.

Now from smoke where cities welter,
From the quiet glens of earth,
Come we to our land of shelter,
To the land that gave us birth,
Lo, we bring thee our achievement,
Won by strength and patient pain—
Thine the strength, and thine the
patience—
Bring it to thy breast again.

And we bid Ontario quicken,
Under snow and under sun,
Where the spruce root and thicken,
Where the waters flash and run;
Bid the towns of glad Ontario
Gather to a diadem,
Deep encircled round Toronto
As with gems the peerless setting
folds and holds the gem.



SUNDAY AT HOME

A Day of Rest

"Hark! With a tender voice
Over her cradle-nest
Beneath a mother down—
Hush! let my child have rest!"

And the wheels of the house are stop-
ped and still,
For the mother must have her own
sweet will.

"Hark! With a tender word,
Out of His heaven so best
Beneath the pitying Lord,—
Hush! let my children rest!"

And the wheels of the world are stop-
ped and still,
For a Sabbath rest 'tis the Lord's
sweet will.

—A. B. Bryant

In All Things, Christ

Blessed be His holy name, with us
It is Christ in the morning, when we
are young and full of strength; it is
Christ at noon, when we are bearing
the burden and heat of the day; and
it is Christ at eventide, when we lean
on the staff for very age, and the
shadows lengthen, and the light is
dim. Yea, and it shall be Christ only
when the night settles down and
deathshade curtains our last bed. In
all circumstances and conditions we
look to Jesus only. Are we in
wealth? Christ crowns it. Are we
in poverty? Christ cheers it. Are we
in honor? Christ calms us. Are we
in shame? Christ consoles us. Are
we in health? He sanctifies it. Are
we in sickness? He relieves it. As
He is at all times the same in Him-
self, so He is the same to us.

—C. H. Spurgeon.

Out-and-Out and Half-and-Half

Is your religion joyful? Is your
joy religious? The two questions go
together. And if we cannot answer
these questions in the light of God's
eye as we ought to do, let these great
promises (John xvi. 20-22) prick us
into holier being, into more consistent
Christian character, and a closer
walk with our Master and Lord.

The out-and-out Christian is a joyful
Christian. The half-and-half
Christian is the kind of Christian
that a great many of you are—little
acquainted with the joy of the Lord.
Why should we live half-way up the
hill, and swathed in mists, when we
might have an unclouded sky and a
visible sun over our heads, if we
would only climb higher and walk in
the light of His face?

The Troubles of Life

We have in life many troubles, and
troubles are of many kinds. Some
sorrows, alas! are real enough, es-
pecially those we bring on ourselves;
but others, and by no means the least
numerous, are mere ghosts of troubles;
if we face them boldly, we find that
they have no substance or reality, but
are mere creations of our own morbid
imagination, and that it is as true
now as in the time of David that
"man disquieteth himself in a vain
shaman."

Some, indeed, of our troubles are
evils, but not real; while others are
real, but not evils. We are all apt,
when we know not what may happen,
to fear the worst. When we know the
full extent of any danger, it is half
over. Hence, we dread ghosts more
than robbers, not only without reason,
but against reason; for even if
ghosts existed, how could they hurt
us? And in ghost stories, few, even
those who say that they have seen a
ghost, ever profess or pretend to have
felt one.

We often magnify troubles and dif-
ficulties and look at them till they
seem much greater than they really
are. Some of our troubles, no doubt,
are real enough, but yet are not evils.
Foresight is very wise, but foresight
is very foolish; and castles are
at any rate better than dungeons in
the air.

New Every Morning

The Master teaches us to pray for
our daily bread. Yesterday's supply
will not avail; neither will yester-
day's supply of grace. We must live
by the day and draw on our loving,
merciful Father in heaven every
morning for strength equal to the
day.

I have often said, and repeat it
here again, that no Christian is
strong enough to carry to-day's du-
ties with to-morrow's anxieties and
worries piled on the top of them.
New every morning comes opportun-
ity, new every morning comes duty;
new every morning comes the sweet
promise, "My grace is sufficient for
thee"; new every morning comes the
Master offering to lead us; and ere
long, if we are faithful, another morn-
ing will break on us with unclouded
splendor where there will be no need
of the sun, for the glory of God doth
lighten it, and there shall be no night
there.—Theodore L. Cuyler, D.D.

The Daily Trusting

Each transient day
That comes, brings toil with joy and
cares,
And life seems short or long, but
wears.

With greatest ease
To all who seize
The way of trusting God; for some
Sweet day, their days shall blend in
one
Eternal day.

A Prayer

BY HENRY WARD BEECHER

*We pray for such a ministrations of the
Spirit as shall make dull things bright,
heavy things light, and discouragements
cheerful. May they who are thy children
know how to bring light out of darkness,
May those who walk disguised in the
garments of this life behold the white and
shining raiment that is theirs. May
none feel useless, worthless, on whom the
blood of Christ has rested, and on whom
immortality shall yet wait. May we lift
ourselves up in the midst of dependencies,
as beacons, the children of the living God.
Amen.*



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cleaning greasy dishes is in the
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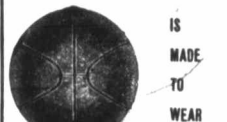
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An Unexpected Dominion Day

By Jean Thomas

OUR city cousins, the Merrills, declared that they would spend July First at our Nova Scotia seaside home, and see what Dominion Day is like outside the city," as the letter to Margaret Hunter, scribble of the Hunter family, expressed it. They came and the Hunters gave cordial greeting. There were cousins Belle and Alicia, the twins, Marguerite and Bessie, Gus, William and Fred.

The Hunter farm house was roomy, and, truth to tell, it was full. There were father and mother, John and Joe, and "the girls," bearing names as follows: the scribble Margaret, eldest; Martha, second; Mercy Maria, and Mary Jane youngest of the family. These were the Hunters, contented, well-to-do people, winning a livelihood, partly from sea, partly from shore.

The Merrills were city people, leading a restless, rushing life, excepting a few weeks last year passed at the old house, childhood home of their mother. This year the fit seized them to celebrate the nation's anniversary at the "old place."

Cousins John and Joe were boat-fishermen by trade, and a schooner-rigged staunch craft was their property, the bounding "Wide Awake." This was at the disposal of the party, and the programme was made up to sail to a beach eight miles distant, enjoy in its fullness the famed "shore-dinner," return by early moonlight, and participate in a general display of fireworks in the evening.

Several young men and maidens of the town were invited and the party numbered twenty-two that wended its way to the little pier where the gallant Wide Awake rode gaily at anchor. Hearts were light, hopes high, as the company boarded their ship. What if one old sailor, weather-wise and far-sighted, shook his head at the little white caps the tide was steadily bearing shoreward! What if he said, "Wind rising! Short seas! Don't like it!" Who cared?

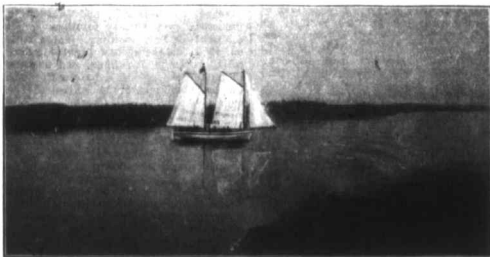
The sky was gloriously blue, and a few light clouds skurrying hither and thither, would roll away northward when the sun rose higher. Lunch baskets were stowed merrily, and cambrics and chambrays settled peacefully, and as the Union Jack was run to the mast head by the patriotic crew "The Maple Leaf Forever" was sung loud and clear, followed by "Rule Britannia," and other songs.

But Captains John and Joe were scanning the horizon with somewhat anxious glance. The little clouds did not scatter northward. On the contrary, they rolled up, and rolled up, bigger and bigger, and the frisky little breeze grew glister and stronger, besides it "backed," and that meant the destination, "The Point" could not be reached.

There was nothing to do but "back" and to keep "tacking," until a sandy

"stretch" in another direction was "made," and here at eleven a.m. the party landed. In the far distance a gunner's cabin was sighted. Across the burning sand, breasting a scorching wind risen almost to a gale our party proceeded to the cabin. The main portion "fell to" digging clams, for these interesting bivalves were the main portion of the dinner.

An inviting spread was soon ready. Those who had been before knew what to do, though the large Point building put up for like occasions was much more convenient and airy than the present close quarters. But they made the best of it. "Good sailors always do," laughed Captain Joe, as the twins looked rather dreary at the prospect of a later afternoon. Cousin Belle rallied her spirits with thoughts of the moonlight sail home. "It will



The "Wide Awake" on her way to the Point.

be so poetic," she said to Margaret, "it will really be the best part of the day."

After dinner, truth to tell, it was somewhat dull, because the lighthouse they expected to visit was upon the other beach, and the wind at four o'clock was blowing harder than ever. The prophecy of the management was that by six a gale would be the consequence.

"Then what?" groaned the twins. "All night in the cabin," answered lively Joe.

And "all night in the cabin" it was. At six o'clock Captain John announced no rational mind would venture upon the sea in such a wind, besides it was "dead ahead," which settled it.

Supper now was the question. The lunch baskets were brought out and the remains of the dinner set forth. All bewailed the short supply.

"The clams at dinner were delicious," said Cousin Alicia, "why not catch more for supper? We can easily cook them. Why not start out for more? I wonder no one thought of before. I, a city girl, can outthink you sea folks after all."

Then with great deliberation Joe explained that clams and shell-fish in general could only be taken at low

tide, since one could not stand in water long higher than one's head.

Evening approached. The cabin held four small berths. "Accommodations at this hotel are not such as to make a long stay desirable," announced the captains, before departing for the boat where they expected to lodge "throughout the night, as they must leave by four a.m., to suit a tide or we shall be obliged to stay till tomorrow afternoon."

It would have been dreary enough in the old cabin when darkness settled down had it not been for Captains John and Joe. But sturdy seamen that they were they assumed the responsibilities of entertainment, and kept the crowd in good spirits by a mixture of sea-stories and sailor-songs. A bright fire was kindled and its cheerful blaze lighted up the cabin and made it not so dismal after all. One of the city cousins declared it to be "cosy," and while it was "altogether different from what they had planned and expected, they made the best of it."

Near midnight all was serene, and doubtless would have remained so, had not a furious tempest poured forth its wrath. This roused the cabin inmates. By morning the elements were again quiet, and the party, breakfastless and weary with the night watches, set out for the march across the sands.

A light rain shower drenched them, but the trim "Wide Awake" was reached at last. They again embarked, and with fair wind and a very rough sea, soon reached the home shore.

"Celebrated enough?" asked a bluff sailor, as the party slowly left the boat, and the old marine who had warned them could not refrain from saying kind of low, as he noticed their tired and wet appearance, "I told you so."

"All that's left of the glorious First," sighed Joe, as they looked upon the tattered flag still floating from the main head of the boat.

"Not all," said the city cousins. "There's our fireworks. It'll never do to let those cart wheels, rockets, and candles go by. Why won't they make as good a show the night of the second as the first?"

And it was so decided.

I cannot tell you how grand a display they had that night on the lawn in front of the Hunter house, because I am not very well informed about fireworks; but I believe that everyone was well satisfied, and the city cousins voted that Dominion Day by the sea was well worth their journey and their night's experience as castaways.



Saving Steps

Make the head save the heels" is an old and time-worn motto, but it is expressive. When one has several errands to do in another part of the house, or at the stove, she should endeavor to remember to perform them, if possible, in one trip; thus time and strength are economized. Again, in preparing vegetables it saves both time and temper to do so sitting down; the same may be said of washing dishes.

We have, or expect to have, children, and it is the duty of every woman, maid or wife, to save herself for her children. A woman whose days are spent in the kitchen in one weary and monotonous round of hard work will certainly bear weakly children, who, in turn, will hand their fragile constitution down to their offspring.

The Summer Diet

Through July and August the less meat eaten the better. A breakfast of good bread and butter, berries, or fruit of some kind, eggs if one pleases, and a small cup of coffee properly made, will keep one from suffering with hunger until dinner time. Beef or mutton, roasted, broiled or boiled, with plenty of vegetables and a dessert of fruit, makes a wholesome dinner and one comparatively easy to prepare. With a light supper, yet sufficient both in quantity and quality, one should be able to keep well and comfortable through the hot summer months. Where one has a small family, a leg of mutton roasted or boiled, to serve cold, will save a great deal of work. A piece of beef boiled and salted or spiced is also very nice.

Preserving Berries

The old rule, "pound for pound," in preserving, has yielded to the light of science, and it is no longer necessary for an excess of sugar to prevent fermentation in sealed cans and jars, if care be taken.

For canning strawberries, the following rule is a good one. Hull and wash the berries, that is, rinse well, to remove particles of sand that are quite liable to be lodged among them. Place in a porcelain kettle with water to cover about one-half the berries, stew until soft, add sugar and jars.

A good rule for putting into jars this and all other fruits, is to wring a towel in hot water, wrap around the glass, bottom and sides, and fill with hot fruit. This is easier and more convenient than to heat in the oven before filling.

Strawberry jam is better than most jams from small fruits, unless we except raspberry, because the seeds are so fine. The strawberries should be prepared the same as for canning, aside from the quantity of water, which should be much less, just cover the bottom of the kettle. After stewing till soft, add sugar, three-fourths of a cup to a cup of the mashed fruit, and boil thirty minutes, stirring, and skimming off any scum that rises. When done, pour into jam or jelly pots or cups and seal by pressing

writing paper cut to fit the glasses, over the fruit and then seal with thick brown paper brushed on the inner side with white of an egg.

Raspberry, blackberry, thimbleberry and other jams may be made and secured in the same way.

In the making of jams the fruit should be thoroughly bruised before cooking as this prevents its hardening. Jams also require almost constant stirring, and a good ladle or paddle should be in possession of every housekeeper.

Some Summer Recipes

Cake Without Eggs—One cup of sugar, three cups of flour, one cup of water, one-half cup of butter, two teaspoonsful of baking powder, nutmeg and raisins.

Popovers—Two cups each of milk and flour, two eggs and a pinch of salt, mix the milk and flour together first, then beat the eggs, whites and yolks together, stir them in the flour and milk have a gem pan hot and greased, fill half full, and bake in a moderate oven twenty minutes.

Mountain Dew Pudding—Three rolled soda crackers, one pint of sweet milk, yolks of two eggs, and a piece of butter the size of a hazel-nut, bake one-half hour; take the whites of the eggs, beat to a stiff froth, add one cup of white sugar, put on top of the pudding and bake fifteen minutes.

Vegetable Soup—There is no better summer soup than this, which is so simply made by adding a cupful of finely shredded vegetables, cooked tender, to a quart of barley broth. Simmer ten minutes, season well and serve. Young carrots, turnips, radishes, string beans, peas, chopped lettuce, asparagus tips and parsley can all go to the making of this soup.

Graham Muffins—Sift one quart of Graham flour, half a teaspoonful of salt and a heaping tablespoonful of baking powder, add two ounces of butter and two eggs, beaten, and milk enough to make a thin batter; mix. Half fill the muffin rings and bake in a quick oven. Substitute shredded oats for graham and you have excellent muffins as the result.

To Pickle Cucumbers—Have two stoneware, one containing good cider vinegar, the other a pickle made by dissolving a pint of rock salt in two quarts of boiling water, and adding a spoonful of alum. Cut the cucumbers from the vines every other morning, and put them into the pickle and let them remain two days, then put them into the vinegar. In a few weeks drain that vinegar off, and put in new vinegar and a few pieces of horseradish root, and the pickles will keep hard and good.

A Hot Weather Drink

A cheap refreshing beverage is made from oatmeal. Into a large earthenware or porcelain lined kettle put four ounces of fresh oatmeal, six ounces of white sugar, and one lemon sliced very thin. Mix with just enough cold water to melt the ingredients, then pour on one gallon of boiling water, stirring all the while. When cold this will be found a delightful drink.

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Valencia, Ont. Feb. 24th, 1902

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IN THE SEWING ROOM



The Art of Fine Sewing

Fine sewing is again high in favor. Women are making not only sheer linen trifles for the neck, but also entire garments with no stitch of sewing machine work in them. Girls make for their friends birthday gifts of articles of apparel—nightdresses, aprons, corset covers, petticoats, seamed felled, hemmed and decorated by hand, with dainty lace or muslin ruffling whipped on with almost invisible stitches.

The materials used are the soft, fine fabrics that never yield the best results when put together on the sewing machine. Machine work, no matter how well executed, will always have a certain wiriness and stiffness because of the double thread in the seam.

It requires pains and precision to do plain sewing well, to set stitches of

and becoming folds, and is trimmed with lace which is applied on indicated lines. The backs are tucked in groups from shoulders to waist on lines that give a tapering effect to the figure. The sleeves are the fashionable ones that are tucked above the elbows and form puffs below. At the neck is a regulation collar.

TUCKED PLAITED SKIRT, 4435

Skirts that clear the ground are much in style and are admirable from the standpoint of comfort as well as of health. This very stylish one is tucked in groups that conceal the seams and which are stitched to flounce depth, then allowed to fall free. It is adapted to all skirting and dress materials.

The skirt is cut in nine gores and is tucked in groups of four each that are turned toward the centre and which conceal the seams. The fulness at the



4425 Tucked Blouse
32 to 40 bust.



4435 Tucked Plaited Skirt, 22 to 30 waist.



4428 Girl's Dress,
8 to 14 yrs.

same dimensions at even distances so that the work would have a smoothly regular look. The old school methods of training taught sewing pupils to take up just as many threads to the needle in hemming and seaming, to stroke gathers so that they stood like well-drilled soldiers in line, and to fell seams in such narrow, fine lines that it would take a microscope to detect a flaw or deflection from the regular.

Possibly the twentieth-century girls will find it no easy task to produce such exquisite specimens of handiwork as are preserved in grandmothers' dowries. But the ball has been set going, and the results are promising.

Hints by May Stanton

WOMAN'S TUCKED BLOUSE, 4425

Fancy waists that close in the back are much in style and are exceedingly attractive in the season's materials. This very pretty one is equally well adapted to the entire costume and to the odd waist, to the long list of washable fabrics, and all soft and simple silks and wools, but, as shown is of handkerchief lawn with trimming of Valenciennes lace and is lined. A foundation lining accompanies the pattern, however, and can be used when silk or wool is the material chosen.

The waist consists of the fitted lining, the front and the backs. The front is tucked to form a deep pointed yoke, below which it falls in soft

back is laid in flat inverted plaits and to the upper edge is attached a narrow belt.

GIRL'S DRESS, 4428

Young girls always look well in dresses which give a broad shouldered effect. This attractive design includes one of the new handkerchief berthas which falls in deep points well over the shoulders and at front and back. As shown it is made of white batiste with trimming of Mechlin lace held by bands of beading, but all the many pretty materials offered are appropriate.

The dress consists of the skirt and the waist. The waist is made over a body lining which can be cut away beneath the yoke when a transparent effect is desired. Below the yoke it is full and droops slightly over the belt. The sleeves are soft and full and are finished with pointed frills which match the bertha. The skirt is one of the newest of the season and is joined to a shallow yoke which does away with the necessity for fulness at the waist line. The lower edge is trimmed with a lace edged frill which gives grace and freedom.

The price of each of the above patterns post-paid is only 10 cts. Send orders to The Farming World, Morang Building, Toronto, giving size wanted.

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WHEN WRITING ADVERTISERS, PLEASE MENTION THE FARMING WORLD.



Dangerous Back Yards

The front doors of many farm houses are rarely opened. The back door is in constant use. One need not go far in any locality to find the outlet of the kitchen sink ending in a sort of ditch, which is supposed to carry off the waste water, but which only allows it to soak away and saturate the ground near the back of the house. The seldom used front door is opened when a small coffin is to be taken out. The minister speaks of "the mysterious dispensations of providence." They are not at all mysterious. Bad sink drains at the back of the house are sure to bring typhoid fever and other sickness. Let the back door surroundings be looked to. If nothing can be done carry the kitchen wastes to a cesspool a distance from the house, where they can soak away far below the surface. Prohibit all throwing out of slops at the back door. The ground soon becomes charged with matters that ferment and breed disease.

Where pigs are kept, and that includes every farm, there should be a pail to receive all animal and vegetable matters, and daily emptied. Nothing of the kind should be thrown out at the back of the house. Where there is such a disease-breeding sink spout as we have mentioned, let provision be at once made to carry off the water to a cesspool, and cover up the saturated ground with dry earth.

When Some One Faints

I have seen so many unnecessary things done for a fainting person, said a recent writer, so much fussing and running hither and thither by light-headed friends, that a word or two must be said and three or four simple methods given for the speedy restoration to consciousness.

Usually three things only are necessary to revive a person in a faint—fresh air, the recumbent position and loose clothing about the waist and neck.

Fainting is unconsciousness due to disorder of the circulation. The patient feels as the first indication a light, giddy feeling, then becomes pale and the extremities grow cold.

Always place the person flat on the back—on the floor or on a bed, or anywhere—and if they do not revive when exposed to the air or fanned, sprinkle a little cold water on the face, and hold ammonia or smelling salts or alcohol or turpentine to the nose; anything strong-smelling to excite the nerves of sensation and the brain and heart to activity.

Should the patient be extremely anemic, with a weak heart action, a mustard plaster, or hot flannels, or a hot water bag might be applied to the pit of the stomach. This will revive them at once.

An epileptic fit should be treated very much like a faint, because in both the brain is temporarily bloodless. Do not struggle with such patients, simply hold their hands to prevent them from doing themselves an injury. Place them on their backs,

and push between their teeth a bit of pine wood or a piece of cloth folded to prevent the usual biting of the tongue. When the muscular contractions cease follow with perfect quiet and rest.

Hysterical people do not require treatment. Only be kind and patient with them and give them rest and quiet.

In case of apoplexy, and while waiting for the physician, simply apply ice to the head and keep the patient very quiet.

For the Eyes

Don't read in a reclining attitude, or in bed.

Don't sit facing a strong light. If possible, let the light fall on the work or book from over the left shoulder.

Don't neglect to bathe the eyes occasionally in salt water. A weak solution is best.

Don't bathe eyes that are inflamed with cold water. Use warm water. Don't open the eyes under water when bathing, especially in salt water.

Don't fail to wash the eyes every night before retiring, so as to remove any dust that may have gathered on the lids during the day.

Don't have colored shades on the lamps. Use white or ground glass. If you must have a colored shade, let it be green.

Don't wear a veil with black dots, or one woven with double threads.

Don't try to get a cinder out of the eye by rubbing. Dip a tiny camel's hair brush in oil and draw gently across the eyeball.

A Cure for Boils

If persons in need of poultice for boils or any swelling, will take thick cream and heat until oily and thicken with flour, they will find it very soothing and "bring it to a head" rapidly.

Lemons for Biliousness

The lemon treatment for biliousness is simple and usually effective. Most people know the benefit of lemonade before breakfast, but few know that it is more than doubled by taking it at night also. The way to get the better of the bilious system, without blue pills and other drugs, is to take the juice of one, two or three lemons, as appetite craves, in as much iced water as makes it pleasant to drink without sugar, before going to bed. In the morning, on rising, at least half an hour before breakfast, take the juice of one lemon in a goblet of water. People must not irritate the stomach by eating lemons clear, but diluted properly, so as not to irritate the throat, and taken on an empty stomach, the improvement is marked.

Never omit regular bathing, for unless the skin is in active condition a cold will close the pores and favor congestion and other diseases.



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In the Flower Garden

Hints for Flower Growers

Pansies do not do well in the house because the air is too hot and dry for them. They like a cool moist atmosphere.

Never attempt to force a bulb the second season. They may bloom and they may not. It is always best to get fresh bulbs.

The maiden hair fern, is not adapted to house culture. The air of the living rooms is usually too dry and warm. It will live on indefinitely and continue to throw up fronds, but these generally die off before fully developed. The Boston fern is more satisfactory, if it is not so beautiful.

Feed the Fuchsias well if you want many flowers. Also water well, and do not neglect to shower their foliage.

Tuberous Begonias and Gloxinias ought to be coming into bloom now. Give a weekly application of some good fertilizer. Keep them out of the hot sun. Do not let water stand on the foliage of the Gloxinia.

Keep the Geraniums you intend for winter use from flowering now. Go over each plant and remove every bud as soon as it appears. If the plants are not compact and well branched make them so by pruning to symmetrical shape and preventing the main branches from lengthening until as many side branches are formed as seem necessary to thicken up the plant well.

Look to the roses. If no insects have come as yet, they may put in an appearance at any time. The soap insecticides will prevent injury from aphides and worms if used energetically.

Go over the Rambler roses and cut out a good many of the young canes. Allow not more than five or six to a plant to grow. It is a mistake to let all grow and prune away unnecessary ones in fall or spring. By pruning now all the strength of the plant is thrown into the few shoots left, therefore none of it is wasted.

Renovating Lawns

If there are thin or vacant places on the lawn scratch the soil well with an iron-toothed rake and sow seed of lawn grass on it thickly. By a little attention of this kind the lawn can be made to show an even surface. Unless it does this it will not be as attractive as it ought to be.

Boston Ferns

Those who have grown one plant of this fern have found out how extremely useful it is in decorating the parlor for a special occasion, and more plants will be wanted for future use. Now is a good time to get up a stock of them by dividing the roots of the old plant. Generally a large plant will be found to consist of several small plants, in a sense—that is, there will be sev-

eral "crowns" or natural divisions, and these admit of separation in such a manner that each "crown" can be made into an independent plant. Turn the old plant out of its pot and break the roots carefully apart. They will be so interlaced and woven in among each other that the work will have to be done slowly and painstakingly in order to avoid mutilating them seriously, but it can be done. When you have your plant divided pot each division in a soil of leaf mold (or its substitute, turfy matter) and sand. By November you will have good, strong plants—Home and Flowers.

Don't Shear Your Shrubs

The beauty and interest of a shrub surely lies in its natural habit and form, says Prof. L. H. Bailey in Country Life in America. When shrubs are sheared into formal shapes, the shrub no longer exists for itself, but is only a means of expressing some queer conceit of the shearer. Of course, shrubs should be pruned, to make them healthy and vigorous, to keep them within bounds, to increase the size of bloom, to check mere waywardness; but all this leaves the shrub a shrub, with the hand of the pruner unseen, and does not make it to counterfeit a bottle or a barrel or a parachute. If the forsythia has superlative merit, it is for the wealth of early spring bloom. Yet I know a yard in which the forsythias are annually sheared into shapeless shapes, and this is done when they are in bloom. Last year two-thirds of the bloom was cut from these bushes when it was just opening, and the reply of the Irishman who barbered them, when I remonstrated, was, "Inclade, they hev no shape."

Hottentot Philosophy

Ostriches may come to roost. A missionary in the hand is worth two in the bush.

Never look a gift horse pistol in the muzzle.

It is a long boa constrictor that has no turning.

Cooking too many spoils the broth.

The proof of the preaching is in eating the preacher.

The heir of the lion inherits his bite.

Do not cry over spilled milk. Crack another cocoanut.

—Chicago Tribune.

Figuring out the Profit

—Hi—Wal, I s'pose yer son is a great help since he come back from that 'ar agriculture college.

—Si—'Help nothin'! Instead of comin' out an' helpin' with th' plowin' like he use ter, he does nothin' but lay round th' house now, figurin' out th' profit of crossin' punkins with pie plant in order to raise punkin pies.


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With metal wheels, is low and convenient for farm and general work. Made by skilled workmen, and of the best material. Guaranteed to carry four to five thousand pounds. Write for catalogue with full description of both Wheels and Wagons.

Dominion Wrought Iron Wheel Co., Limited
8 and 11 Brook Ave., TORONTO, ONT.

The Orchard and Garden

Garden Items from Experience

Some people say that early cabbage should not be cultivated after they begin to head up. I believe from experience this to be false, and a good excuse for laziness on their part. Too much cultivation never hurt anything yet, but insufficient cultivation has been the means of innumerable failures.

If you notice some of your onion plants look wilted and falling over you may be quite sure the onion maggot is paying his attention to them. Don't delay; take a little garden trowel, go along the rows and lift up every affected plant with the ground under its roots and put in a box or basket. When you have gathered all the infested ones, burn them. You will lose a few onions, but nothing like the quantity you would lose later on if nothing was done. This is much better than the carbolic acid and kerosene oil treatment.

The pea louse is the pest of the month in many localities. I have tried many experiments but found no sure preventative or remedy. I had to give up the dwarf varieties and depend on the tall sorts, which appear to be little troubled by them. Telephone and Champion of England are most exempt and Advance and Strategem appear to be the most liable to attack from this serious pest.

When thinning out your beet patch do not throw the plants away, stick them almost anywhere in a vacant space and they will thrive. I set them among my fruit bushes and get quite a crop. Besides this there is a good demand in some markets for the young plants as greens, many preferring them to spinach. Do not consider them valueless.

It is estimated by a high authority on agricultural matters that a ton of hay which sells for \$10 removes \$4 worth of fertility from the soil, while a ton of tomatoes or asparagus selling at \$40 takes only \$1 worth. I think this is worthy of our consideration, though it seems very doubtful or somewhat incomprehensible to believe.

Considering the low price of gooseberries in recent years I am doubtful whether it pays to box them. They are, when green, as hard as a bullet and could be almost as well shipped in barrels as in crates at far less expense, both in the labor of packing them and in freight.

E. MacKinlay, Wolfville, N.S.

Cold Storage for Pears

Mr. W. J. Sheldon, an English fruit grower, gives his experience with placing pears in cold storage as follows: "I have sent pears that were green when gathered in September, into storage, and examined them there in the following: December, January and February,

and found them in as near as possible the same condition as when gathered; after February they were taken out to see what effect the open air would have upon them—I might say the storage was kept at a temperature of 35 degrees F. during the whole of the time the fruit was there. I found the fruit took about the same time to ripen as it would have done at the time of gathering—viz., about fourteen days, and the color and general appearance was quite as good.

"There is a little unpleasant taste in the fruit when it first comes out of storage, but that soon goes off."

To Kill Potato Blight

When the blight first makes its appearance the leaves should be treated immediately. Spray with Bordeaux mixture by the middle of July, a second time the first of August, and a third time the middle of August. When bugs are present at either of these sprayings they may be killed by adding half a pound of paris green to a barrel of the Bordeaux.

There is no question of the profit of spraying potatoes in regions where these blights are prevalent. The cost of spraying an acre three times as above mentioned, will vary from \$6 to \$9, a saving of twice that number of bushels will usually pay the cost.

Lanterns in Peach Trees

Some peach growers in Simcoe Co. have adopted the novel plan of placing lighted lanterns in the middle of the trees to prevent injury to the fruit from frost. It is said that these lighted lanterns will help the trees to withstand quite a heavy frost. Among others Mr. C. D. Liddell of Brooke has adopted the lantern scheme. Have any of our readers tried it, and what has been their experience?

Forestry Instruction Made Easy

The Department of Agriculture at Washington has just issued another valuable bulletin on forestry culture, designed to enable the farmer to handle his own forestry problem. It contains a series of pictures outlining drawings of trees of various sorts in different relations to one another. For example, each tree in the drawing is labelled with a number and the name of the species, and on the opposite page is explained what trees should be cut and what should be left, with reasons for such treatment.

The raspberry crop is likely to be a large one. We were in a farmer's garden the other day and every bush was loaded with green fruit. In the same garden the prospect for gooseberries and currants was good.



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are Cheap**

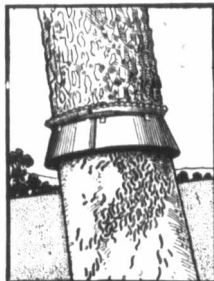
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It works while you sleep. Always on guard. It expands with the tree. Will not tear, break, loose or rust.

It is durable, will last for years, making it cheaper to use than any home-made device.

It both repels and kills. No crushing or bursting of insects.

It is hooked round the tree; no nailing or defacing. Once put on it stays. It works automatically.

The "insecticide" with which the band is saturated meets every demand for relief.
Send for full set of circulars.

AGENTS WANTED. GOOD PAY.

Do not be deceived by imitations and infringements.

**EXPANSIVE TREE PROTECTOR COMPANY,
OF ONTARIO, Limited**

Cor. Jarvis and Richmond Sts., Toronto, Ont.

In the Poultry Yard

Some Poultry Pointers

If we would attain success in poultry raising we must be fond of chickens. Live chickens, I mean.

If we love the downy little toddlers we will consider it a pleasure to care for them, and do all in our power to make them comfortable.

Now, we don't pretend to "know it all," but we do know something about poultry raising. We learn lessons from our own experience, and from the experiences of others.

Every farmer should subscribe for "The Farming World," for much valuable information is to be found in its pages. A few hints now to inexperienced poultry raisers may not be out of place.

Don't imagine that because the summer is here your hens can scratch for a living. Feed them regularly twice a day, if you want them to lay eggs.

If you are finding dead chicks lying around the yard pretty often, don't become discouraged and say that poultry raising doesn't pay, but go to work resolutely and find out the cause of their death. Put on your spectacles and look for live.

If you find those little chick destroyers, go and buy a few cups of brimstone, put it in a pot, set fire to it, and shut up the hen house tightly. Don't let the hens in for at least 24 hours or until the house has been well ventilated.

Now, buy some flour of sulphur, catch your fowls, and rub plenty of it under their wings. Sulphur is death to lice or mites.

Clean your hen house every day and spread coal ashes on the floor. Cleanliness is next to godliness even in the hen house.

Don't allow the thoughtless mother hen to trail the newly-born youngsters away from the dew early in the morning while the field is on the grass. If you do your flock will soon decrease. Keep them in until the dew is off the grass.

Don't be so cruel as to tether the mother-hen. If you are afraid she will lose the chicks if you let her run at large, get some laths, and build a coop or enclosure for them. It is best to keep them in until the chicks are six or eight weeks old.

If you want the chicks to be ready for market early, feed them regularly and give them plenty of skim milk to drink. Also give them clean water several times a day, and if confined they require plenty of grit.

Don't set any hens in June or July. The hens don't set well nor the eggs don't hatch well. And if they did, late chicks never pay.

Mrs. A. Rodd, P. E. I.

Poultry in British Columbia

A good deal of interest is being taken in the poultry business in B. C., and a number of people are buying incubators and going into

the chicken business on a larger scale, and they are all anxious to get information on the subject. I think there is little doubt that if arrangements could be made well ahead and the farming classes, interested in the matter, a much better attendance could be secured at the three winter shows. With a good program of educational features, such as addresses illustrated by models and poultry appliances, exhibits of dressed poultry, plucking contests, etc., I think we could depend on the attendance being satisfactory and the right people interested. The demand for poultry and eggs in the province is very good and is nowhere supplied locally in sufficient quantities, the result being that immense numbers of eggs are imported from the East. During the last year I am informed by General Freight Superintendent Greer of the C. P. R.

that 50 cars of eggs and 5 cars of poultry were brought in from the East to the coast trade alone. The Kootenays would probably take as much more and the Yukon draws largely supplies from Washington and Oregon. I heard of one order of 15 tons of poultry which could not be placed in Victoria and had to be filled on Puget Sound. There are good openings for men to engage in the poultry business, and for our farmers to extend their yards in the coast districts of B. C. The islands of the gulf, I think, are especially adapted to poultry, the climate is mild and the rainfall is less than on the mainland coast from 25 to 30 inches. The exceptionally high prices ruling in the mining districts of Southern B. C. are very attractive. In several districts the snowfall is, as a rule, light and the winter a good deal shorter than in Western Ontario. G. H. Hudson, B. C.

To Make Inferior Woods Last

The forestry branch of the U. S. Department of Agriculture is making extensive experiments in the seasoning and use of preservatives for the preservation of timber. So rapid and complete has been the destruction of the timber belts of the United States that it is now practically impossible to secure high grade timber at reasonable prices. Manufacturers and others have been compelled to use inferior and less known woods for purposes for which only the highest grades were used a few years ago.

The U. S. forestry branch is experimenting with these inferior woods and by proper seasoning and the use of preservatives endeavoring to find a means of making them as effective for high class work as the more valuable natural woods. Though these experiments are not yet complete the results so far have been most encouraging, and it looks as if a most effective way might be found of preserving these inferior woods.

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WE MANUFACTURE (chicken styles of) Incubators and Brooders, and keep all kinds of Poultry supplies. Catalogue from: MORGAN'S INCUBATOR WORKS, London, Ont.

EGGS, from chickens "Jolly" and "Kitty" strains, Brown Leghorns, Black Minorcas, Barred Rocks, White Wyandottes. Circular giving particulars free. JOHN B. FRETTE, Fruitland, Ont.

WHITE AND SILVER WYANDOTTES; best for quality and vigor. W. D. MONKMAN, Bond Head, Ont.

SHORTBORN AND LEICESTERS. Young Stock of both sexes for sale, also my stock Bull Imp. Christopher 2000. Descriptive remarks for sale. JAMES DOUGLAS, Caledonia, Ont.

IMPORTED BUFF ORPINGTONS—Another lot just arrived. Cooks direct costing \$96.00 a pair. Springs and Linnus Buff eggs, improved stock, \$4.00 per 15; Canadian bred, costing \$2.00 per 15. Eggs reduced since 1st July to \$3.00 and \$1.00. Also in order of shipment: Marquand, Blue and Yorkshire. Best quality. J. M. CLARK, Importer and breeder, Oshonogo, Ont. Write for catalogue giving standards.

HERS AND QUEEN—Wanted purchasers for entire full colonies (price on application), or queens. Imported queens direct from Canada or Italy for these orders must be looked at least four weeks before delivery. Italian milk and Utensils Italian breeders July 1st, each \$1.25, set to \$6.50; set July 1st \$1.00, set to \$5.75. Italian breeders June 20th, set to \$1.25. Best breeders \$2.00. Canadian imported under July 1st, each \$1.25, set to \$7.00; set July 1st, set to \$6.00. Italian breeders June 1st \$1.75, set to \$1.50. Best breeders \$3.00. An unusual quantity of Italian milk and Utensils, try it. Full directions sent for changing the system. Send money by P.O. order. Register your order. Registered order, address E. F. HOLTZMANN, Bradford, Ont., Canada.

HOLSTEIN BULL, 2 years, bull calf 8 months, of choice milking strain. Cotswold ram, 8 years, never housed in show rings. Improved Yorkshire boar, 1 year, 8 months; sows ready to breed. Young 100 lbs. pounds, 4 lbs. each, of choice type and breeding. C. W. HUGHES, Oak Heights, Ontario.

WANTED—Energetic, responsible men to sell fruit trees, ornamental trees, etc. Commission 25% free. Liberal pay weekly. Arrangements made for whole or part time. We also have a special line of seed potatoes never before offered for sale in Canada. For list names apply NOW. VILHAM NURSERY COMPANY, Toronto, Ont.

FINE HILL POULTRY YARDS has been getting a lot of imported stock, and is now prepared to send to all orders from the following varieties: B and W Rocks, S. G. Frayser, S. G. Dorkings, W and H Leghorns, eggs \$1.00 per 15. Brown Duck eggs \$1.00 per 15. M. Brown Turkey eggs \$1.00 per 15. Write for our list of prices as prepared to fill small or large orders on short notice. D. A. GRAHAM, Theofort, Ont.

SALESMEN wanted for "Auto-Opory." Best automatic compressed air hand Sprayer made. Liberal terms. Season long. Write for particulars. CAVERS BROS., Box 998, Galt, Ont.

HORSE OWNERS—Send \$25.00 silver for valuable receipt; cure sprains, bruises, strains, windfalls, etc. Nothing like it ever before. Rapid action assured. P. Q. McGILL, Jr., P. O. Box 124, Melb. Stn., P. Q.

HOLSTEINS—For sale, one young tall and two best; others. S. E. SMITH, Dundas, Ont.

HIGH PRICES FOR POULTRY—We are paying 15c. per lb. for broilers or spring chickens live or dressed, weight between 1 1/2 and 2 1/2 lbs. each. Don't hold your chickens until the fall at this expense and then sell for less per pair than we will give you for them now. Write us at once as these prices will soon drop. CANADIAN PRODUCE CO., Toronto.

You will profit by mentioning THE FARMING WORLD when writing advertisers.

In the Maritime Provinces

Crop Conditions. Live Stock Outlook. Winter Fair Arrangements. Experimental Plots. Combining Fairs.

After one of the severest droughts ever experienced so early in the summer, gentle rains have come to the relief of suffering vegetation in these provinces. In some sections there has been enough to meet the needs of growing crops; in others, more is wanted to ensure vigorous growth.

The hay crop and pastures have suffered most. Grains, as a rule, are looking remarkably well, and roots and potatoes, though backward, are growing fairly well. Up to date there has been no really warm weather, so that corn and garden stuff is backward.

Reports from orchards vary as to the set of apples, but the general tenor is for a full crop. Annapolis Valley reports are very favorable.

The drought has sent hay prices skyward and will enable holders of large supplies to get out with some profit. Every available car is being rapidly loaded on the Upper St. John for the New England market, and ten times as many cars as are available are wanted.

It is to be feared that the shortage of pasture and the prospect of high prices for hay will militate against live stock increase, though so far the demand for pure-bred Shorthorns is growing. One farmer told your correspondent that he proposed to dispose of all the grade cattle he now had, and restock with pure-bred Shorthorns, and in nearly every district of the St. John Valley there are men who will purchase Shorthorn bulls in the near future.

On June 17th Geo. C. Cary of St. Johnsbury, Vermont, sent a draft of \$6 head from his herd of Shorthorns to an auction sale at Fort Fairfield, Me., within a mile of the New Brunswick border. Capt. T. Robson, of Ilderton, Ont., was the auctioneer, and Mr. W. D. Platt of Hamilton was in attendance and a purchaser of several head.

Hopkins Bros. of Fort Fairfield, who have a herd of Shorthorns numbering between 50 and 60 head, bought some of the best of Mr. Cary's offering. The animal which brought the highest price was a five-year-old cow bred by Wm. Grainger & Son, of Londesboro, Ont., "Lady Belle Vol. 53," by "Beau Ideal," out of "Isabella," by "Golden Nugget." This cow is an excellent individual and a very heavy milker, and she comes from a long line of milking ancestors. She was knocked down at \$295. The average price of the offering exclusive of calves, was \$107.

A number of New Brunswick farmers attended the sale, but on account of the uncertainty as to when the embargo preventing cattle passing from Maine to Canada will be raised, only one cow was

bought by them. Donald Innes of Tobique River was the purchaser and he will have to leave his cow in Maine for the present.

The C. P. R. agricultural agent, W. W. Hubbard, and N. F. Phillips of Pembroke, Carleton County, N. B., are now in Ontario to select and bring down a carload of Shorthorns and some Clyde horses which have been ordered by farmers in Carleton, York, Sunbury and Queen's counties.

The Executive Committee of the Maritime Stock Breeders' Association met at Amherst on the 15th and 16th inst., and completed arrangements for the holding of the winter fair at that town on the 14th, 15th, 16th and 17th December next. The prize list this year is nearly \$4,000 and provides handsomely for the classes called.

The Maritime Poultry Association met on the 16th and arranged for the poultry features of the show. This department will be fully equipped with the latest metallic coping and very liberal prizes are offered.

The prize list will also include apples, honey and apiary appliances.

The Maritime Stock Breeders' Association will also hold an auction sale of pure-bred stock at Amherst in February, 1904. Offerings will be received from all Maritime breeders. Buyers from the West Indies are expected to be present.

A somewhat novel departure is being made by the C. P. R. Company on its grounds at Woodstock, N. B., where some experimental plots have been laid out to test various fodder crops and demonstrate whether they are adapted to New Brunswick conditions. Rape, vetches, millets, corn, sorgham and various grasses, clover and field roots are being tried and are open for visitors at all times. Special information in regard to these plots will be given all visitors to the Woodstock Exhibition.

Exhibitions will be held in New Brunswick this year at Woodstock on the week beginning 15th September, Fredericton beginning 21st September, Sussex and Chatham come on together on the following week and Sackville follows them.

In Nova Scotia all parts of the province have agreed to the holding of one provincial exhibition annually at Halifax. The dates this year are from the 8th to the 16th September. On Prince Edward Island one exhibition also suffices; this will be held at Charlottetown on the week beginning 21st September. The one central exhibition for a province is very much better for the live stock interests than a number of small ones, and it is rather regrettable

that the New Brunswick people cannot agree to combine and pool their interests for the benefit of all.

An extended series of Farmers' Institute meetings will be held next October and November in New Brunswick. Among the speakers from outside the province who will attend some of the meetings is Duncan Anderson of Rugby, Ont., Mack Adam.

24 June, 1903.

Prince Edward Island

Weather gradually becoming warmer. After a long period of drought, some welcome rain fell on June 6. It came just in time to save the crops. The markets have been well attended lately. Not much change in prices. Pork has dropped a little. Eggs, 12 to 13c. per dozen in market. Veal, 75 to 8c. per lb., according to quality. Lamb, 60 to 75c. per quarter. Live pigs, from 4 to 6 weeks' old sell for \$5 to \$6 per pair. A great deal of hay is coming to market. It sells for from 50 to 55c. per cwt. Forty-five fat cattle were taken over in the Northumberland on June 6. Over 40 head of cattle were brought to the city on June 6. They were disposed of to the butchers. One weighed about 1,900 lb. Some fine mackerel have been caught. Crops are looking well. Messrs. Blake Bros. bought recently from Mr. James Harding, of Harding's Road, 6 choice steers, weighing 7,210 lb. Mr. Harding received \$450 for the lot. Within a year he sold to the Dominion Packing Company 30 hogs for \$500, and his milk sales amounted to \$340, making \$1,050 in a year from the above sources. He also sold about 1,500 bushels of oats and other products.

The Dominion Department of Agriculture has established at Vernon River Bridge, an illustration poultry station, for the hatching, rearing, fattening and marketing of chickens. The work is under the supervision of Mr. F. C. Hare, Chief of the Poultry Division. The Department intends to supply the farmers of the Island with well bred Plymouth Rock chickens, required for breeding. The station is equipped with two 250 egg incubators. After two lots of chickens are hatched and fed, the cost of feed and the amount of gain in live weight will be ascertained.

Rev. A. E. Burke, President of the Fruit Growers' Association, is encouraging our farmers to plant trees and attend to them properly. Mr. Vroom, of Okatawa, and Mr. Burke, Fruit Inspector, have been travelling throughout the country giving illustrations in spraying and grafting.

Howard Weeks, of Fredericton, N. B., recently sold his handsome driving mare for the sum of \$140.

Mr. E. Wheatley purchased from John Houston, New Glasgow, a very fine beef animal weighing 1,200 lb. Cattle shippers report markets dull. A. R.

Finance on the Farm

Jottings

Every farmer should keep an account of his farming operations. Too often little business details are left to memory, which in these days of hurry and bustle is not to be relied upon.

The hired man is a costly necessity these days. From \$200 to \$300 a year and board make quite a hole in the gross receipts from the farm. But what is to be done. Help must be had in some shape and form in order not only to save the crop, but to keep things running till the crop is ripened.

To make the most out of the hired man, plan his work carefully, and keep a strict account of the time he spends on each branch of work. This will enable you to estimate the value of his work and to so arrange it that you shall get the most out of it.

The money-making farmer does so largely because he looks after the little leaks on the farm. It is surprising how quickly time and money can be frittered away by neglecting the little things on the farm. By not keeping the machinery in order, by not keeping the fences in repair and a hundred other ways.

Money can always be made on the farm by buying for cash only. To run an account for groceries, etc., is to open a little leak that may get away with quite a little pile before the end of the year. Buy for cash where possible. You get the best price and better value for your money and are not so apt to buy things you don't want.

More Safeguards for Investors Needed

The means by which the defunct Atlas and Elgin Loan Companies of St. Thomas obtained the right to invest in stocks should be thoroughly investigated. Ruin and hardship have been brought to many a home because of this special privilege and it is time that drastic measures were taken to prevent the occurrence of further calamities of this kind. It is the most pernicious kind of legislation that will give any financial organization the right to use depositors' funds in the speculative market, and the legislators, whether at Toronto or Ottawa, responsible for it, should be brought to task for not looking after the public's interests better.

The ease by which charters are obtained by financial and other organizations in this country should be checked. Some check should certainly be placed upon companies seeking investments from the public, and the government should exercise some caution in granting charters and privileges to every concern that applies for them. Because a company has obtained a charter from parliament to carry on a certain line of business is no guarantee, under present ways and means of obtaining charters, that the interests of the public in dealing with that company will be properly safeguarded. Many, however, innocently believe they are, and invest their savings, thinking that their interests are properly safeguarded because the company has obtained the right to do business by government sanction. It would seem as if our legislators only desire was to forward the interest of

promoters and let the public "go hang."

We know nothing of the means by which the St. Thomas companies obtained the right to invest in the speculative market. But what we do know is that the principle is radically wrong and should be discontinued. We would go farther and say that no loan or banking institution having the right to receive money on deposit should be allowed to invest those deposits in other than legitimate business transactions. Moreover, there should be some government supervision of all such companies and a regular system of inspection other than the auditors' annual report. We have inspectors of insurance and kindred organizations. Why, then, should we not have inspectors of loan and other so-called banking institutions, who are seeking investments from the public. In these days of chartered banks there is no more of the private bank, which seemingly is allowed to run its own course, to receive deposits and to utilize those deposits in which ever way it pleases.

This whole question is worthy of the most careful consideration by our legislators, and they should see to it that no company, financial or otherwise, shall in future obtain the right to solicit investments and to deal with the public on other than a strictly safe and legitimate basis. If an individual or body of men wish to speculate in stocks let them do so with their own funds, but do not give them the right to utilize the money of others, who have no control over how it is to be expended.

The Speculative Craze

Mark Twain has put into Pudd'nhead Wilson's New Calendar this aphorism: "There are two times in a man's life when he should not speculate, when he can't afford it, and when he can." The moral is tolerably plain. But those who can afford it and those who cannot have both been busy speculating during the past year. Of the successful ones we hear quite enough. Generally speaking, they are ready to tell their gains. But of those who lose, and they are the vast majority, we do not hear so easily. They nurse their shame in private. Nevertheless, we have heard some harrowing accounts of the effect of the stock exchange losses in various households in this city as well as in unexpected places in the country. Respectable people of narrow means, misled by the success of the few, have placed their little savings in the hands of brokers on margin, and lost. This means privation, trouble, sorrow. Such is the usual result when, in a time of inflated values people who know nothing of stock exchange operations venture their little means in a game where the chances are overwhelmingly against them. If one wins, ten lose.—The Monetary Times.

Farmers' Telephone

A farmers' telephone company was recently organized at Kintore, Oxford county, to connect that place with the surrounding villages. Among those interested are Philip Harris and Mr. McCorquodale, Lakeside; Wm. McGee, R. J. Porter, W. J. Dunster and R. Dunlop, Kintore; Wm. Hogg and J. Young, Thamesford.

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30 ST. ALEXIS ST., MONTREAL, P. Q.
Local Managers wanted.

Extravagant Wife

Q. My wife has been in the habit of ordering goods at tradesmen's stores and having them charged to me. I have paid most of these bills, but my wife is very extravagant, and though I do not wish to limit her in any reasonable purchase, yet I feel that she is running up larger bills than I can afford to pay. Am I liable for all she orders? B. K.

A. A wife has no more authority to contract in her husband's name than any other agent. The fact, however, that you have been paying her bills is sufficient to constitute her your agent. Your best course now would be to notify the tradespeople that hereafter you will not be responsible for what your wife orders. That will effectually protect you.

Agreement Between Father and Son

Q.—In 1871, a father wrote to his son, who had left home to work for himself, that if he would return he would give him fifty acres of his farm and a share of his cattle and sheep when he (the son) got married. Upon receipt of this letter the son returned and remained on the farm working it with his father, except at certain times when he went away to work for wages for himself. The father had pointed out the fifty acres which he intended to give his son, and the son entered and erected a house thereon with his father's approval, and occupied it with his family, he having married in 1879. Can the son compel the father to convey this fifty acres to him, and give him a share of his cattle and sheep?

A.—Yes, the son can compel his father to carry out his agreement with him.

Books and Bulletins Received

FUMIGATION APPLIANCES. Report of inspection by Ontario Department of Agriculture, Toronto.

EXPERIMENTS WITH OATS.—Bulletin No. 138, Ohio Experiment Station covers the whole field of oat cultivation.

FERTILIZER INSPECTION.—Bulletin No. 96, Maine Experiment Station, contains analyses of fertilizers licensed in that state.

FOURTH CENSUS OF CANADA.—Bulletin XVI, Census office, Ottawa, gives census of agriculture in New Brunswick.

COMMERCIAL FEEDING STUFFS.—Bulletin 97 and 99, Wisconsin Station. Particulars re feeding stuffs used in that state.

BEE-KEEPERS' ASSOCIATION of Ontario. Annual Report of for 1902. Published by the Ontario Department of Agriculture.

THE STATISTICAL YEAR BOOK of Canada for 1900. Issued by the Department of Agriculture at Ottawa and compiled by George Johnston, Dominion Statistician.

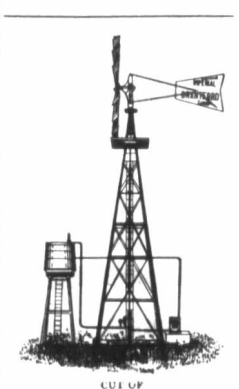
RECLAIMING ALKALI LANDS in Egypt is the subject of Bulletin No. 21 by the U.S. Dept. of Agriculture. It treats of work there as adapted to similar work in the United States.

COMMISSIONER OF HIGHWAYS report for 1902, published by the Ontario Department of Public Works. It treats of the various features of the good roads movement in Ontario during the past year, and is well illustrated.



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Dr. B. J. Kendall Co., I have used your Kendall's Swain Cure for 10 years and have found it an *invaluable remedy*. Please send me your bottle of cure as I have a colic horse now having trouble with. Yours truly, L. L. DAVIES, Durham, Texas. As a witness for family use I have cured **Prize Bull** for **Top 88**. Ask your agent for **KENDALL'S SWAIN CURE** also **A Treatise on the Horse**. The best care address **Dr. B. J. Kendall Co., Enosburg Falls, Vt.**

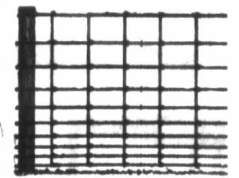


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LATEST UPON THE MARKET

Some Experiments With Early Potatoes

In these days of experimental farms and such numerous varieties of products of the farm and garden experiments by the private gardener are not always considered of much account. Still, localities differ, seeds differ and other things combine to make sometimes the most elaborate and painstaking experiments of little use or advantage to the great majority of gardeners. I propose to give some of the results that have been derived from experimenting with early potatoes in promoting earliness, testing the merits of varieties and methods of culture. So much has been published on this subject that what I shall say may not be entirely new to some of my readers, but coming from one who has had considerable experience with this important crop, it may be interesting and perhaps profitable to those interested. Several ways of forcing potatoes for earliness I have employed. The sod plan, the box of sand, the manure sprouting system and transplanting from a hotbed. The plan of inserting a piece of seed potato in a sod and after it has started to grow, setting it out in the open ground has several disadvantages. The potato plant requires light which cannot be had in an ordinary cellar in sufficient quantity. It also needs considerable warmth, but considering all these drawbacks, the great advantage of the plant being little disturbed or checked in the setting out compensates in a great measure for the disadvantages and I find it to be a very good plan, which, however, for want of space cannot always be attempted on a large scale. The hot bed plan has the great advantage of exposure to light which makes the plant strong and stocky and the foliage healthy looking. A cold frame is nearly as good as a hot bed, very little fermenting manure being required, and if the plants are taken up carefully with plenty of soil attached to the roots and set out in the same manner as tomato plants, although strike root and grow rapidly. To have some potatoes very early for home use this is the best plan of all and will give splendid satisfaction. Any old sash will do if it is covered with an old mat or bag at night. The only disadvantage of this plan is that it is very limited in its sphere of operation. The manure sprouting of the seed by placing the whole potato in fermenting manure has the disadvantage of the sprouts being forced so quickly that they are tender and easily broken, so that great care is needed in cutting the seed and when taken to the prepared ground it should be in a shallow box in a single layer, which will prevent in a great measure the breaking of the sprouts.

The best plan of forcing early potatoes, which perhaps will not

forward them so quickly as the previous methods, still is more practicable and can be carried out on a larger scale, is the sand sprouting system. A barrel with holes bored through it all around, is taken and a layer of moist sand placed in the bottom. A layer of potatoes one deep, then another layer of sand and so on until the barrel is full. The barrel is then placed near a stove or furnace and turned around every day or two so that the heat will gain a uniform entrance and thus promote the sprouting of the seed. When the seed is well sprouted it can be carefully cut, leaving two or three good sprouts to the seed and placed in a shallow box and then taken to the prepared ground and placed in the drill at the proper distance apart. By sifting light soil from a box over the seed till well covered, it prevents the sprouts from breaking, as they are so liable to do when the soil is turned directly over on them. For a small garden shallow boxes are best to sprout the seed as the sprouts can grow considerably before time comes for setting out and they are much stronger and healthier by being exposed to the light. After the potatoes are well above ground I go over them with a sharp steel garden rake and loosen the soil and break the crust around the plants. This, until the plants are in blossom, is far less laborious than hilling or hoeing, and the heat and moisture which are so essential to this crop, are held much better. After the plants begin to blossom they should be hilled or ridged just enough to prevent sunburning of the stalks and tubers. If the first bugs are picked off not much trouble will result, but paris green should be applied if they begin to multiply. The best fertilizer for early potatoes I have found to be well rotted barn or hen manure for light land and wood ashes or phosphate for heavy black soil. Chemical fertilizers give best results on heavy soil also. Varieties have got to be so numerous of late years that their merits are rather confusing. The best way is to depend on the older, well-tried sorts for the main part of the crop and plant a couple of rows of newer kinds for comparison. You will gain much information as to character and habits of varieties and much pleasure also can be had by noting their peculiarities. I think anyone who plants Bliss Triumph and Early Sunrise on light soil and Early Ohio and Irish Cobbler on heavy black soil will make no mistake. They were best of ten varieties tried the past summer.

Edgar E. MacKinnon, Windsor St.,
Halifax, Canada.

Look up The Farming World Prize Essay Competition at the Toronto Industrial Fair, 1903. Write Dr. Orr, Toronto, for a prize list and etc. It will be worth your while

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- (4) Courses in Nature Study and Domestic Science—Sept. 14, '03.
- (5) Three Weeks' Creamery Course—Dec. 1, '03.
- (6) Three Months' Dairy Course—Jan. 4, '04.

Ladies admitted to Domestic Science and Dairy Courses.
Send for general or special circulars.

Guelph, July, '03.

JAMES MILLS, M.A., President.

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The Improved U.S. Cream Separator

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Is the Cheapest Machine to Buy
for many reasons, among which are:

It Makes More Money
By getting more cream out of the milk, and leaving it in perfect condition, thus getting more product and a higher price.

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By wearing longer and requiring fewer repairs. The U. S. is noted for its wearing qualities.

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For further particulars write for illustrated catalogue.

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

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It is the Best of Its Kind Ever Published

A most notable feature is the latter portion of the book, which is devoted exclusively to Sick Room Cookery and the treatment, before the doctor arrives, of persons suddenly taken ill or meeting with an accident.

The book contains over one thousand recipes. Bound in substantial oilcloth cover for the kitchen.

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Regular Price, One Dollar

THE FARMING WORLD • • • Toronto

WHEN WRITING ADVERTISERS, PLEASE MENTION THE FARMING WORLD.

PURE-BRED STOCK

NOTES AND NEWS FROM THE BREEDERS

These columns are set apart 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 advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the condition of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. An editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.

During June a large number of young pigs were shipped by Mr. J. H. Grisdale, agriculturist of the Central Experimental Farm, to farms throughout the country for breeding purposes. These animals were from purebred sires and dams, and great care was taken that they were in perfect condition before being sold. Prices ran from \$15 to \$20 each, according to size and quality. Among those who received their purchases are R. W. Barclay, Carleton, Que.; The Ecmarrine Chiscomi, Chicoutimi, Que.; J. Prudhomme, St. Jovite, Que.; P. Pinard, Nicolet, Que.; G. W. Earl, Elgin, Ont.; H. Duquette, St. Alexandre de Bellevue, Que.; A. Dacoust, Alfred, Ont.; Thos. Doyle, Lowe Station, Que.; A. Richard, Joliette, Que.; and a few others. Another lot will be ready for shipment about the first of July.

The English Devon Cattle Breeders' Society has just published the twenty-sixth volume of Davy's Devon Herd Book, with supplement for 1902. The volume contains particulars of bulls from 4,696 to 4,886 and cows from 18,568 to 19,203. It also contains a list of the births in registered herds during the year, together with accounts of the sales of such herds and the prizes awarded to Devon cattle at the principal agricultural societies' shows.

A large number of pedigree exportation certificates were granted by the British Shorthorn Society between March 3rd and May 8th, this year. Close to 150 of the animals were for South America, 20 for Russia, four for South Africa, and two for Canada.

Four good Avonshires were shipped last week to New Zealand by Mr. Peter Ireland, Goodwood, who has recently been on a visit to the old country. One of them was a two-year-old heifer which was bought from Colonel Fergusson-Buchanan. The other three were bought from Mr. William Howie, two being yearling bulls, by Captain of Burnhouses, and the third a three-year-old heifer. The latter is due to calve in October, and being a half-sister to the famous Mary Burnhouses, should give a good account of herself at the autumn shows in New Zealand. All of the animals, however, were of first-rate quality and breeding, the Auchenorlie type being by General G. Birkenshaw, which has been sire of quite a number of prize-winning animals.—North British Agriculturist.

During the past twelve months, Messrs Elder, Dempster & Co. have carried pedigree stock from Avonmouth, England, to Kingston, Jamaica, freight free. They now intimate that they are prepared to extend the same facility during June, July and August, 1903, to shippers of stock for breeding purposes in Jamaica. Why are not some of our Canadian companies as generous with Canadian pedigreed stock?

At a big sale of Hackneys, held by Henry Manley & Sons, Crewe, Great Britain, seven of the best of the island stud of Trelked & Sons, of Kirkos-

wold, realized an average of £136 10s., the best realized this year for colts.

Thornton's record of Shorthorn transactions shows that there were exported during the period from January 1st to March 31st, 1903, the following animals: To Africa, 13, United States, 2, South America, 119, Australia, 2, Canada, 11, Holland, 1, Japan, 1, and to Russia, 3.

On August 20th next an important sale of Yorkshire swine will take place at the winter fair building at Guelph. The contributors will be the Glenholston Stock Co., Myrtle, Central Experimental Farm, Ottawa; J. E. Bretthorn, Burford, and G. B. Hood, Guelph. About 100 in all will be sold of which 10 will be imported stock. The Glenholston Co. will sell about 40 in all, several of which are imported, including a noted boar sired by a well-known Royal winner. We saw the Glenholston lot a few days ago and they certainly are one of the best lots of Yorkshires we have seen for many a day. They are strong and vigorous, of good length and depth, of the type that should get the kind of bacon hog most in demand to-day. Some excellent young sows will be offered and a few specially fine young boars.

At the sale of Yorkshire pigs, held on June 25th at Hamilton, Ont., by D. C. Flatt & Sons, of Millgrove, Ont., 21 head were sold. The breed was of the right bacon sort, and were the pick of the best English herds. The sale averaged \$115 each, the total sum realized being \$8,165. The highest price paid was \$400 for Summerhill Cotgrave Lady by T. H. Canfield, Lake Park, Minn. The boar Borrowfield Clipper, for which Mr. Flatt paid \$500 in England, sold to the Wilcox Company, of Whitebear, Minn., for \$390.

Hog Cholera Again

Hog cholera has broken out at Ripley, Ont. It is stated that the disease was brought into this district through hogs purchased in Essex county for feeding at these factories. There were 302 hogs in the shipment. Sixty were dead before the inspector arrived, and he found 125 more affected. Six breeding sows sold to farmers were killed, together with three hogs that were in the pens with the others. It is not believed the outbreak will spread any further.

Tommy Won

Two brothers went to the same school. They were absent about a fortnight, and then one returned alone. "Where is your brother Thomas?" asked the master.

"Please, sir, he's laid up with a sprained arm. We were trying to see which could lean out of the window farthest, and Tommy won."

Horse Owners Should Use GOMBAULT'S CASUALTY BALSAM

The Great French Veterinary Remedy. A SAFE, SPEEDY & POSITIVE CURE.

Prepared exclusively by GOMBAULT, 1, Rue de Valenciennes, Paris, and Veterinary Surgeon to the French Government Stud.



SUPERSEDES ALL CAUTERY OR FIRING.

Impossible to produce an abscess or fistula. The safest best Blisters ever used. Takes the place of all Blisters for mild or severe action. Removes all Branches or Abscesses from Horns or Oculars.

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THE LAURENCE WILLIAMS COBALT, Canada, etc.

21 Front Street West, Toronto

A GOOD LINIMENT

For 20 cents a gallon can be made as follows:

Absorbine, 4 ounces
Yankee Liniment, 1 quart
Water, 3 quarts
Salt-petre (powdered), 1 ounce

This combination will prove satisfactory and successful for curing Sprains, Stitches, Gouges, Galls, to loosen the shoulders for work, horses' and man's sore shins, and all kinds of troubles where a liniment would be generally used. Buy the

ABSORBINE

at the store, or send to the manufacturer, W. F. YOUNG, P. O. F., Springfield, Mass. Legions Sore & Co., Montreal, Agt. who will send it prepaid upon receipt of \$1.00 for a bottle. One bottle ABSORBINE will make three gallons of liniment or wash as above formula. Write for a bottle and the free booklet giving formulae of Veterinary Remedies.



Lamp's

Spavin

Rinsbone

Fistula

Poll Evil

Acc-Springs

Fleming Bros.

Chomley,

25 Front St. West,

Toronto, Ont.

See the horse

Illustration of a horse's head, part of the Fleming Bros. advertisement.

Cure Them All

You can cure all these diseases and blemishes easily, thoroughly and inexpensively. You can also cure Curb, Scurf, Sweny and softening of every description. If you have any such cases to treat, write us. We will send you our booklets giving you all the information you need. No matter how old the case, if what has failed, we will treat it. Our new methods the books tell you. Thousands have been cured by over 10,000 farmers and stockmen. See the books.

FLEMING BROS.,

Chomley,

25 Front St. West,

Toronto, Ont.

Live Stock at Toronto Exhibition

At the Toronto Industrial Fair this year it has been decided that all fat and grade cattle shall be owned and led by the exhibitor at least three months previous to the exhibition. The ages of ponies have been changed to read on and after Jan. 1, 1903. A class with the same sections and money has been added for dairy cattle as for beef cattle. In the Shorthorn class, prizes amount to \$5,000, an addition of \$1,000.

Several special classes have been provided for ponies this year. Some extra classes have been provided for horses owned and bred by the exhibitor, making them almost entirely farmers' classes. These are for single roadsters not less than 15.1 pairs, same conditions, carriage, singles and pairs, not less than 15.1, saddle horse, owned and bred by exhibitor, and ridden by owner, single and pair heavy drafts, any breed. A special prize is also given for best collection of ten horses, shown by one exhibitor, any breed or breeds. There will be no racing, but only judging by points. Special jumping and hunting competitions will be held. The breeding classes will be judged in the smaller classes as before, but the harness, saddle and hunter classes will be put through their paces in front of the grand stand in the big ring. Special attention is being paid this year to the roadster, standard-bred and pony classes.

In the sheep classes medals will be given for the best ram any age, and for the best ewe any age. The American Cotswold Record, American Leicester Breeders' Association, American Shropshire Registry Association, American Oxford Down Record Association and American Southdown Association are all offering cash specials this year. In swine, \$500 has been added to the prize fund by the Industrial Exhibition Association and \$500 by the Swine Breeders' Association. The horse classes have had \$500 added to them. The rules and regulations have been completely changed, so that this year careful attention to the prize list is advised.

Prize lists giving full particulars may be had from J. O. Orrer, Manager, Toronto. A special feature of this prize list this year is the Farming World prize essay competition. Look for this when you receive the prize list, and try and win one of these essay prizes. You do not know what you can do till you try.

Ottawa Exhibition

This great exhibition will be held, as usual, on the Association's fine and commodious grounds at Ottawa, commencing Sept. 17th and continuing until the 24th. The prize list shows many new classes and increased premiums in every department with many special prizes, including thirty-one gold medals, chiefly given for excellence in horses and cattle. There are also special competitions for the farmer and breeder, showing that the Association is continuing the policy of giving great encouragement to the stock raiser and exhibitor. There is evidence that in all other respects the show will be bigger and better even than the splendid show of last year, and if you have not yet attended either as an exhibitor or a visitor, you should give the question of doing so serious consideration. The greatest card of trotting and running races ever prepared in Eastern Canada is announced for the fair, Ottawa being in a circuit, and the

Stock

DAVID McCRAE, Janesfield, Guelph, Canada
Importer and Breeder of Galloway Cattle, Clydehead
Horses and Cotswold Sheep. Choice animals for sale.

ONTARIO VETERINARY ART COLLEGE, Ltd.

The most successful Veterinary Institution.
Prof. A. Smith, F.R.C.V.S. President,
superintendent. 25, Toronto, Ont.

FOR SALE

Large English Yorkshires. Bors fit for service; sows ready to breed; boars and sows 8 weeks to 3 months old, from imported and Canadian bred sows. Write
JAMES A RUSSELL,
Precious Corners, Ont.

Maple Lodge Stock Farm

Scott's Shorthorns, Choice Milk-
ing Strains, Prize Winning Lei-
cesters, Young Stock for sale—im-
ported and home bred.

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

CHAMPION BERKSHIRE HERD OF
CANADA, headed by 1000-lb. Silver
Medal Boar of Canada and other noted prize
boars. Write me for full description of my
herd. Heaviest boars of any class at last year's
exhibition.

W. H. DURHAM, York Lodge,
East Toronto, Canada.

Registered Shropshires for Sale

Twenty-one ram and ewe lambs, two two-year-old
rams, one stock ram. Good blood. Prices low.

J. F. BRUNTON, Tara (Bruce Co.), Ont.

PURE BRED STOCK

I have for sale 4 Ayrshire Bulls, 2 Pure
Bred Shorthorn Heifers, coming one year
old; 1 Shorthorn Bull, two years old;
Choice Yorkshire Boar, one year old;
Yorkshire Sows and Boars, from four
weeks to six months old; these animals are of
choicest breeding. Will be sold cheap to
quick buyers.

JOHN H. DOUGLAS,
Warkworth, Ont.

NO HUMBUG. Three
Bales of
Best
FARMER BRIGHTON, FAIRFIELD, IOWA.

**BUCHANAN'S
UNLOADING OUTFIT**
Works well both on
stacks and in barns,
unloads all kinds of
hay and grain either
loose or in sheaves.
Send for catalogue to
T. BUCHANAN & CO., Ingersoll, Ont.

ROCK SALT for horses and cattle, in ton and
car lots. Toronto Salt Works, Toronto

spectacular will be a realistic and
thrilling representation of the
eruption of Mount Pelee. Write
for a price list and all information de-
sired.

Destroying Parasites on Poultry

In Bulletin No. 6, F. C. Hall, Chief
of the Poultry Division, Ottawa, gives
the following useful advice in regard
to the prevention and extermination
of parasites on poultry.

If the poultry house is old and con-
tains many crevices, all the nests,
roosts and other fixtures should be
removed from it, and the walls and
ceiling covered with paper and lime-
wash. The material taken from the
house should be burned. New roosting
quarters and inside fittings should be
placed in the house, and an additional
window inserted if required.

Before the fowls return to the new
house they should be thoroughly dusted
with insect powder or sulphur. By
dusting each fowl over a box or paper
the powder can be well rubbed among
the quills of the feathers, and the excess
will not be wasted.

The coal tar treatment for the de-
struction of the gape worms can be ef-
fectively used to rid fowls of vermin.
The fowls are placed in the barrel and
the top of the barrel is covered. The
lice are overcome by the coal tar fumes
and fall to the bottom of the barrel.
The bottom of the barrel should be
covered with a paper so that the vermin
can be destroyed.

The poultry house requires cleaning
and limewashing twice a year. The
roosts should be removed and treated
with coal tar or kerosene every week,
and the nests frequently cleaned and
new straw placed in them.

It is necessary to frequently examine
young chicks for head lice. If present,
the lice will be found in the down or
feathers on the chick's head. If the
lice are not destroyed, they will so
weaken the chick by loss of blood
that it will die. The lice can be re-
moved by smearing the chick's head
with grease or sweet oil to which a
few drops of carbolic acid have been
added.

Live Stock for St. Louis

A large and representative depu-
tation of stockmen waited on the
Hon. Mr. Fisher last week and
asked for a grant of \$100,000, made
up of \$20,000 for expenses, \$50,000
for prizes and \$30,000 for conting-
encies to aid in getting out a large
exhibit of Canadian live stock at
St. Louis in 1904. Mr. Fisher, in
reply, stated that an application of
money for prizes was new to him
and would have to be considered.
Judging from past experience the
item of \$20,000 for expenses was too
small and would have to be
increased.

The delegation also asked the
Government to use its influence to
have the dates upon which live
stock is to be shown at St. Louis
changed to a later period. The
dates as set by the management are:
Horses, August 2nd to Sep-
tember 3rd; cattle, September 12th
to 24th; sheep and hogs, October
3rd to 15th. The Ontario men will
ask that no live stock be shown
before September 20th.

Horses

The horse market continues active for this season. At Grand Rapids Report for last week 133 horses were sold out of which 115 were fine finished ponies, stock sold from \$15 to \$25 each, a pair of draft blocks, in good condition, 5 and 9 years old, sold for \$25, a black driving mare, 3 years, 13.5 hands, \$21.25, a brown mare, 6 years, 16 hands, \$2.25.

The following is Walter Hatfield Smith's weekly report of prevailing prices:

Single drafters, 13 to 16 hands.....	\$40 to \$55
Single colts and carriage horses, 13 to 16 hands.....	40 to 75
Matched pairs, carriage horses, 13 to 16 hands.....	40 to 60
Delivery horses, 13 to 16 hands.....	40 to 50
General purpose and express horses, 13 to 16 hands.....	45 to 75
Draft horses, 13 to 16 hands.....	40 to 55
Serviceable second hand workers.....	40 to 50
Serviceable second hand drivers.....	30 to 45

There is a good demand for workers at Montreal. Heavy drafts sell readily at \$150 to \$250 each, carriage \$120 to \$150 each, saddle \$150 to \$200 each and common \$20 to \$100 each.

Maritime Markets

Halifax, N.S., June 24, 1903.

The last fortnight has brought fairly good growing weather. There have been frequent showers and some bright sunshiny intervals, but as yet needed crops generally are looking well and promise an average yield, with the possible exception of hay.

The Halifax and St. John markets are not overburdened with farm produce, and prices are well maintained. Hay is very trim and costs from two to three dollars per ton more than during March and April. Oats, and in fact feeds of all kinds, are trim and higher. No large stocks are held here or on Prince Edward Island. There is very little doing in hogs, although the packing companies are paying six cents per pound for good live hogs, and 5 to 3.34 for common grades.

The market is better supplied with dairy products now than all the factories are in operation. Still the local supply, especially of dairy butter, is such that large dealers are bringing in considerable quantities from Montreal and points West. The local creameries are asking from one to two cents per pound more than producers in the Upper Provinces obtain for a similar product. A curious feature is that in spite of the relatively high price of butter and cheese some Maritime Province factories, that in other years produced cheese, have this spring turned to butter making, presumably because the farmers who supply the milk prefer the by-products of the butter factories for the purpose of raising stock. Maritime factories are now asking 10 to 12 cents f.o.b. at producing points for cheese. The make is well sold up. The supply of eggs is limited and there are no accumulations. The jobbing price here has advanced to 15 cents.

The market for beef has somewhat improved, especially for Western. The general country stock now being offered is far from choice. This has been a favorable season for lambs, and better stock is now offering at

Tank Pump Bargains



We offer the WindSOR Tank Pump, capacity 24 barrels per minute, complete with hose, strainer and brass nozzle, for \$6.00. We guarantee it to be equal to any tank pump on the market, and if you are not thoroughly satisfied with it, we will send you either a Barnes or a Myers' pump in place of it, without extra charge. For the WindSOR Pump complete with twenty feet of two-inch wire-rope suction hose, made by N.Y. Belling and Packing Co., and ten feet discharge hose, with hose bands, strainer, nozzle etc., our price is \$15.00.

If you need a drive belt, get the best made. Our Veteran Canvas Drive Belt has twenty per cent more rows of stitches than any other make sold in Canada. It weighs five to ten pounds heavier, being made from heavier canvas, and it is fully twenty per cent stronger and more durable. Our price for the six-inch (four-ply) is 10 cents per foot; for the seven-inch, four-ply, 2 1/2 cents per foot; for the eight-inch, four-ply, 35 cents per foot.

Our Veteran Rubber Drive Belt is made for us by the Rubber Goods Mfg. Co., the largest concern making rubber belting in the world, and it is guaranteed by them to be the best belt it is possible to make. Our price for them are: Six-inch, four-ply, 37 cents per foot; seven-inch, four-ply, 48 cents per foot; eight-inch, four-ply, 40 cents per foot. For the Fan Handlight, our price is \$9.00; for complete set Rags, Monitor Jr. Clover Huller, \$15.00; for one-half barrel best Clover Oil, twenty-five imperial gallons, \$9.75; jacketed can, holding eight imperial gallons, same oil, \$9.75; Walter Jack, capacity four tons, \$7.50; three-inch, four-ton (thine Whistle, \$6.00; Thrasher Trestle, 7 cents each, any machine, complete with nuts. Steel Wagon (and twelve barrels' capacity, \$21.00. Our 1903 catalogue is ready for distribution. Every jobber, farmer and owner of an engine should have it. We send it free to all who write for it.

WINDSOR SUPPLY CO.

WINDSOR, ONT.

Flies! Flies! Flies!



Keep your cattle free from these pests by the use of

The Uncle Sam compressed Air Sprayer

A merciful man is merciful unto his beasts.

IT PAYS! to use the "Sprayer" will pay for itself quicker than any other article used on the farm.

This Sprayer is one-gallon capacity and made entirely of steel and brass, and will be set in express paid upon receipt of \$3.00. The machine is protected by 18 patents, and fully guaranteed.

Southcombe, Viel & Ramsden

Manufacturers and Patentees

Toronto, - - Canada

We are looking for live agents. Write for our proposition.

\$2.00 to \$2.50 by the carcass. Good seal brings 6 cents, but the market is overstocked with poor stuff at 4 to 5c. Flour has advanced 25 cents per barrel during the past fortnight. Ontario strawberries have been at a giving in full order at 12 cents per box. The local crop will be very late.

Amendments to Grain Act

The grain growers' association of Manitoba and the Territories is seeking amendments to the grain act as follows:

Farmers to have the right to all their oats to be played at the elevators, the loading platforms, or at small storage warehouses, as they see fit. The right to those cars will be about as follows. The first man on the list of applicants may ask for six live cars, the next three and the next one. Cars will be allowed in the same order one to each man. This done the man at the top of the list will get an other car and so on, the service going on through all the names added to the list of applicants till all are served. Elevators will be asked to take their turn with farmers.

The platforms will be made more convenient and it will not enough space for all comers, a car will be placed on the siding.

It will be recommended to add two deputies to the staff of the warehouse commissioner.

The C. P. R. is said to favor these amendments and as all the Western members of parliament are in favor of them they are likely to become law.

Dr. Wm. Saunders, Director of the Dominion Experimental Farms, has been elected as an honorary associate member of the Highland and Agricultural Society of Scotland.

Had Joined the Church

In an Ohio town the African Methodist Episcopal Church of that district held a conference, and for a week the town was filled with colored pulpit orators. A few days after the conference closed its session, one of the leading women of the town drove out to Pea Ridge to purchase chickens of an old mammy who had supplied the family for years. Aunt Hannah, coming to the gate, said, "I'm sorry, Miss Alice, I ain't got a chicken left. Dey all done enter de ministry."

Institute Workers in Session

(Continued from page 414.)

with the way women's institutes can bring the most good to girls. One of the chief reasons why girls did not attend these gatherings, was that they did not want to learn house keeping, which they had been led to feel was degrading. In the women's institutes they should aim to overcome this by teaching that house-keeping was not degrading, but uplifting—in short, that house-keeping is a science, a profession.

WHEN WRITING ADVERTISERS, PLEASE MENTION THE FARMING WORLD.

Miss Laura Rose, Guelph, and Miss Agnes Smith, Hamilton, followed, dealing more particularly with the growth and organization of women's institutes in Ontario.

Two well prepared and valuable addresses were given by the Hon. Mr. Dryden, and Mr. C. C. James, Deputy Minister of Agriculture. The former dealt with the best way to enlist the interest of our boys in agriculture. No boy should be made to take up agriculture unwillingly. But when a boy expressed a willingness and inclination towards agriculture nothing should be done to turn him from it. Teach the boy on the farm to work for definite results. But give him a chance to learn something outside. When through with the public school send him to the agricultural college instead of the high school.

Mr. James, in his usually masterly way, dwelt with the romance of agriculture. He thought the day had come when institute workers should be trained as teachers are. He recommended for study and reference such books as the "Evolution of Native Plants," by Bailey; "Pioneers and Progress of English Farming," by Prothero; "Corn Plants," by F. J. Sergeant; and the biography of Von Liebig and Pasteur.

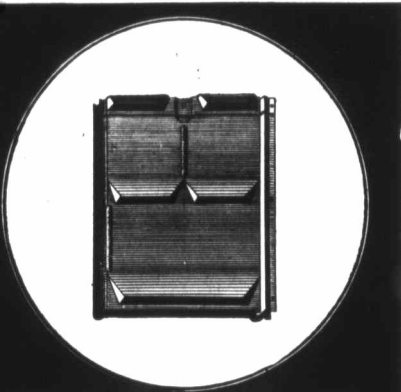
The final session was held on Thursday evening after the delegates had returned from Guelph, when the following officers for 1903 were elected: President, B. W. Kilgore, North Carolina; Vice President, E. E. Kaufman, North Dakota; Secretary-Treasurer, G. C. Creelman, Toronto. (re-elected); Executive Committee, George Mackintosh, Wisconsin; H. G. Easterly, Illinois; J. C. Hards, Mississippi.

The next meeting will be in St. Louis in 1904, at a time to be decided upon by the directors.

They Visit Guelph

As guests of the Ontario Department of Agriculture, the American Association of Institute Workers and their friends to the number of over 100 spent Thursday at the Ontario Agricultural College. They expressed themselves as being greatly pleased with their reception and the work the college is doing. They visited the different departments of the college. In the dairy they were addressed by Prof. Dean, in the poultry by Prof. Graham, and in the experimental field by Prof. Zavitz. They were entertained to luncheon by Dr. Mills at his residence, where they were most hospitably received by Mrs. Mills and the Misses Mills. On visiting the new Massey Hall and Library, Dr. Mills detained the visitors a few minutes during which he outlined the work to be undertaken in behalf of women, when the new Macdonald Training School and Institute in connection with the college are completed. The visitors were under the special care of Supt. G. C. Creelman, to whom they are much indebted for an enjoyable outing.

THE PEDLAR PEOPLE



The "Oshawa" Steel Shingle

Is the newest steel shingle on the market. And the best. Like most manufacturers, we claim that our goods are "the best," but in the case of the "Oshawa" Shingle this is not a mere assertion, as it certainly has all the advantages of other steel shingles, besides distinct advantages all its own. Principal among the latter is our patent arrangement of the joints, by which we are able to lock each sheet on all four sides, making an absolutely wind, water and storm proof roof, which are shipped from our factory all ready to apply.

Particulars and prices from all dealers or direct on request.

Eastern Branch,
22 Victoria Square, Montreal, Que.

OSHAWA ONT.

E. B. EDDY'S NEW Indurated Fibre Ware,



Tubs, Pails, Etc.

Insist on getting EDDY'S
For sale by all first class dealers.

**SUPERIOR
TO ALL OTHERS**

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The Perrin Plow Company

of Smith's Falls
Limited

Ontario Riding Plows

One-furrow & Two-furrow



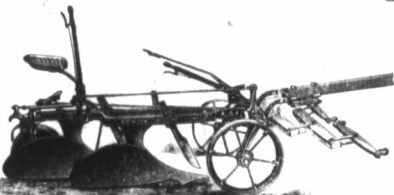
No walking plow can compete with them. Light in draft. Simple in management. Adjustments easily understood and covering all requirements. Mouldboards adapted for every class of soil.

See your local agent, or if none write direct to—

The Perrin Plow Co.

LIMITED

Smith's Falls, Ont.



ONTARIO NO 2.

SEASONABLE FARM BOOKS

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