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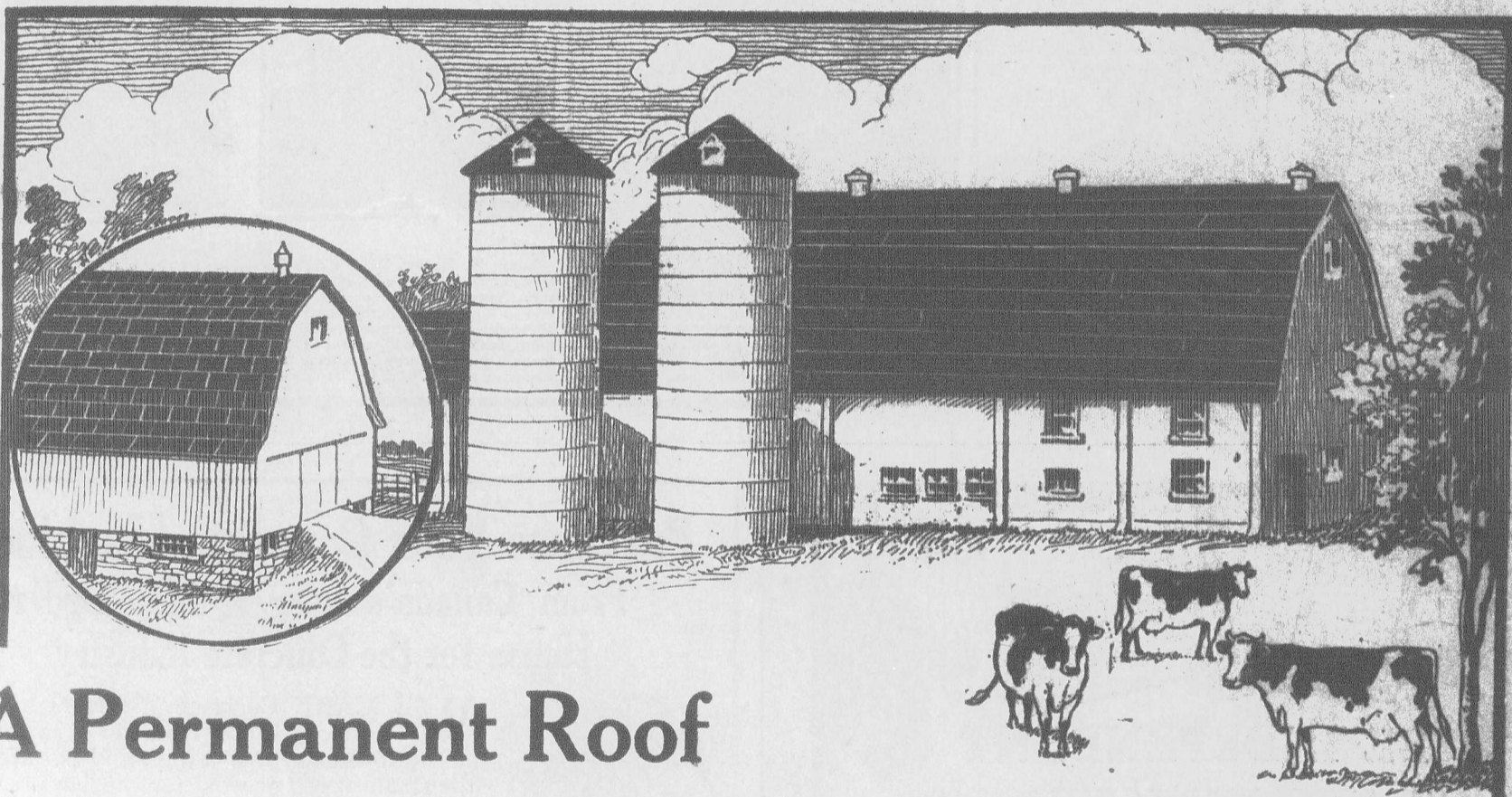
AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.

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VOL. LII.

LONDON, ONTARIO, AUGUST 30, 1917.

No. 1301



A Permanent Roof

That is what you demand first! Now, **Brantford Roofing** not only meets this demand, but is non-combustible, light in weight, and because of its crushed rock surface it requires no painting.

We make roll roofing in three grades, "**Asphalt**", "**Rubber**" and "**Crystal**". These names denote the

surface that is used, and each roll contains sufficient material to cover 100 square feet. They are made in 1, 2 and 3 ply.

Brantford Roll Roofing is suitable for all farm buildings, warehouses, factories, etc., that have either flat or steep roofs.

Brantford Roll Roofing and Slates

Our **Asphalt Slates** are uniform in size, pliable, easily laid, and have not the excessive weight of quarried slates. The crushed rock surface gives them, however, the fire-resisting properties, and, being attractive in appearance and very durable, they have become very popular for roofing dwellings, garages, and the better class of public buildings.

Brantford Asphalt Slates are made in four colors—red, green, grey and black. These colors are that of the crushed rock—they never fade nor require painting.

Before roofing or re-roofing your building, send for free samples and illustrated roofing booklet.

Brantford Roofing Co., Limited, HEAD OFFICE and FACTORY **Brantford, Canada**

BRANCHES: 9 Place d' Youville, MONTREAL, QUE.; 124 Richmond Street West, TORONTO, ONT.

WILL SILO FILLING TIME FIND YOU READY?

SILO FILLING time will soon be here—and the Canadian Farmer is depending upon the corn crop this year as never before. It is your duty, and it will mean more money in your pocket, to use every effort, to get ALL the FEEDING VALUE out of every stalk of corn.

The most important thing is to silo your corn crop when it possesses the GREATEST FOOD VALUE. If you get a Gilson Silo Filler NOW—before we are sold out—you will fill your own silo. This means that you will silo your own corn when it is just right for silage. Be independent of the cutter gang. You do not need big power to operate the "Gilson." Your own farm engine—4 h.p. or larger—will do the work.

WRITE FOR FREE SILO FILLER BOOK TO-DAY.

It tells the Gilson Story from start to finish—points out the advantages of design, and describes the all-metal construction in such a way that you will understand WHY our machines cut and elevate more silage with less power than ANY OTHER Blower Cutter. This is a matter of dollars and cents to you. A Gilson Silo Filler will, in all probability, pay for itself the first season. BEWARE OF IMITATIONS AND INFRINGEMENTS.

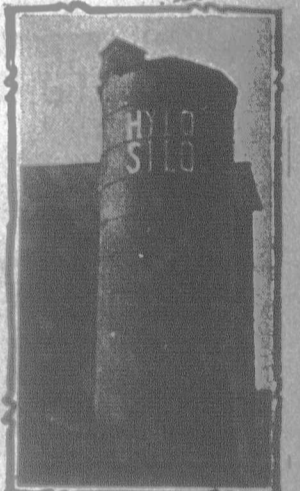
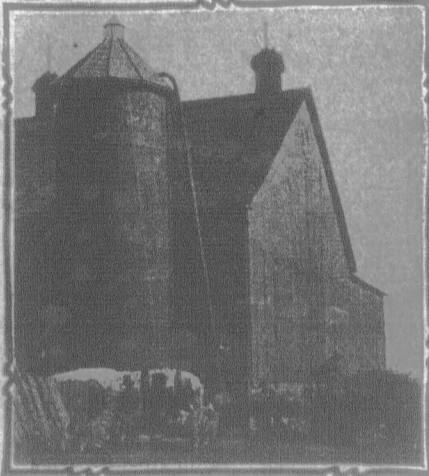
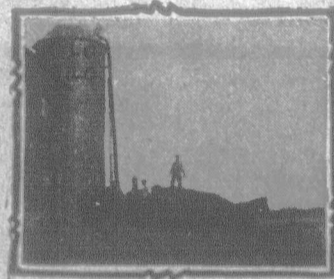
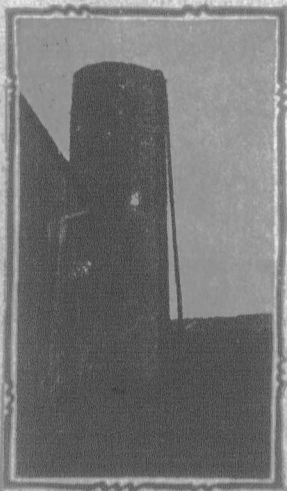
GILSON MFG. CO., Limited

389 York St., GUELPH, Ont.

You need this SILO FILLER



It is as much a part of your Farm Equipment as your Binder or Plow.



"My Silo is 40' high, writes FRANK BOLTON, Guelph, Ont., but my 8 h.p. engine, which I purchased from you nine years ago operates my 13' ensilage cutter splendidly, sending corn over the top in a steady stream. This outfit is the admiration of all who see it.

JOHN H. MURRAY, Sea View Farm, Cap La Ronde, C.B., N.S., writes: "Enclosed find picture of my 10' Gilson Silo Filler, 8 h.p. Gilson Engine and 30' Gilson Hylo Silo. I filled my silo with oats, peas and vetch, and it is coming out fine and not a bit spoiled. My outfit does splendid work and I am very well pleased with it.

FRED HURTER's farm at Kitchener, Ont., showing his 8 h.p. Gilson Engine and 13' Gilson ensilage cutter filling his 30' Gilson Hylo Silo.

JACOB N. HART, Ridgeville, Ont., writes, "The enclosed picture shows our 13' Silo Filler and 12 h.p. Gilson Engine hard at work filling our silo. This outfit works beautifully and is as much a part of every farm as a binder or mower."

M. I. ADOLPH, of Gowanstown, Ont., declares that his silo filling outfit "is a source of real satisfaction and profit. I would not want to be without my 10' Gilson Silo Filler, 8 h.p. Gilson Engine and 12x30' Gilson Hylo Silo. I have used it for three seasons, and have had practically no trouble—it was always ready when wanted."



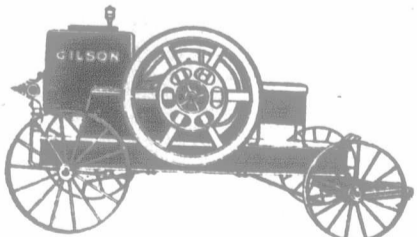
BE INDEPENDENT

IT IS YOUR SAVINGS, NOT PAY CHECKS THAT COUNT
The average town worker with a family cannot save more than \$120 a year. Rent, food, clothing and expensive amusements take the rest. Once his machinery, seed and live stock are paid for the average Western Farmer has a yearly turnover of \$500 and up, his own.

OWN A WESTERN FARM

by Homesteading along the lines of the Canadian Northern Railway, where the newest and most fertile sections are still open for settlement. Booklets and information on application to General Passenger Departments: Montreal, Que.; Toronto, Ont.; Winnipeg, Man.

CANADIAN NORTHERN RAILWAY



This Engine Will Cost You Nothing

You need an engine—get a Gilson on our new, easy-payment plan, and it will pay for itself. You have the work for it to do this fall and winter, help is scarce and high-priced—save yourself a lot of worry and enjoy that "feeling of security" which is such a definite part of the staunch, reliable Gilson Engine. Gilson Engines have long enjoyed an indisputable reputation for dependability, power, simplicity and economy. This year finds us with an even more attractive proposition for the discriminating buyer. Prices of everything you have been buying have been soaring, but, by careful management, we are able to furnish Gilson Engines at remarkably low prices. Write to-day for catalogue, price and easy-payment plan, stating what size you are interested in.

Gilson Mfg. Co., Ltd., 259 York St., Guelph, Ont.

PATENTS AND LEGAL
FETHERSTONHAUGH & CO. PATENTS
Solicitors, 100 St. Nicholas St., Toronto, Ont.
Branches: Ottawa, and other principal cities. Send for free booklet.

PATENTS Trade Marks and Designs
special attention given to Patent Litigation.
Furnish's name for our application.
RIDOUT & MAYBEE Crown Life Bldg
TORONTO, ONT.

Purchase Your Concrete Machinery From Canada's Largest Mail-Order House for the Concrete Industry



London Concrete Mixer, No. 4

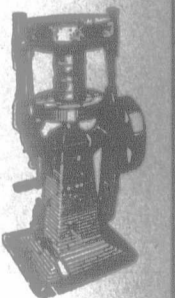
WE MAKE Concrete Mixers in all sizes and capacities, from 40 cu. yards to 500 cu. yards a day, and suitable for the smallest repair work or the largest Government job. **It doesn't pay to mix concrete for small jobs by hand labor.**

The London Concrete Mixer shown here is one of our smallest size power machines. It will save the price of itself in cement and labor in 15 days.

Ask for Catalogue 1-K.

The Dunn Cement Drain Tile Machine makes all sizes of tile. There are large profits in the cement drain tile business.

Ask for Catalogue 2.



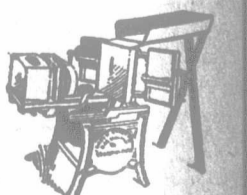
Build Concrete Silos

Over 10,000 concrete silos have been built in Ontario alone with **London Adjustable Silo Curbs.**

Ask for Catalogue 1-D.

London Adjustable Concrete Block Machines

Adjustable for making all sizes of blocks on the one machine. See our exhibit in Machinery Building at Western Fair, London, also visit our plant only two blocks south of Fair Grounds. Ask for Catalogue No. 3.



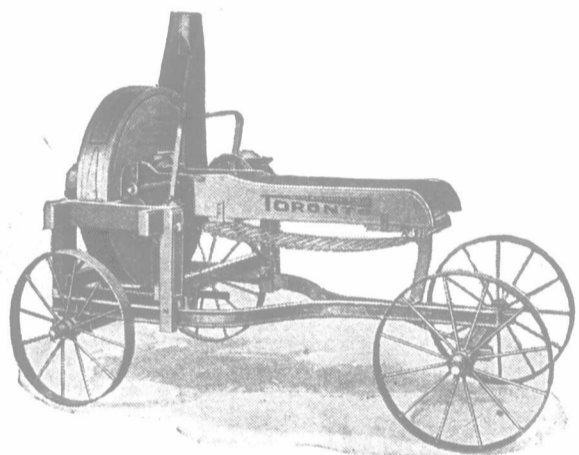
London Concrete Machinery Co., Limited
LONDON CANADA

ONTARIO WIND ENGINE & PUMP CO. LIMITED

TORONTO Farm Equipment Has Solved the Labor Problem

INCREASES PROFITS and PRODUCTION

GREATER production is a very live problem with every farmer to-day. It is essential to back up the boys at the front, and with production increased, profit will more than take care of itself, in view of the high prices which are prevailing. "Yes," says the farmer, "but how about the labor shortage?" Our aim is to enable the farmer to substitute a machine for a man wherever possible, and run his farm as efficiently as the manufacturer runs his plant. Every item described on this page is a genuine profit maker and labor-saving device, worked out to its highest efficiency.



TORONTO GAS ENGINES

To hire a man—or try to hire one—to do work that can be done more economically and more quickly by the Toronto Gasoline Engine, is mighty poor business. And in these days of labor shortage, every farmer is brought face to face with the absolute necessity of replacing man-power with mechanical power. The Toronto Engine runs the ensilage cutter, fills the silo, separates cream, grinds feed, saws wood, and runs the root pulper, grindstone, bone cutter, pump, churn, honey extractor, and does a hundred jobs around the farm where steady power is required. **Only the farmer who has never used a good engine will attempt to operate his farm without one.** We make all sizes from 1 3/4 h.p.; every machine so simply constructed that your wife or son can run it without danger or trouble. Toronto Engines are sturdy and strong, but reasonable in weight, with a minimum of vibration in running.

Free upon request.—The book about Toronto Engines is just off the press. It tells the farmer exactly what he should know about gas power. Whether you now own an engine or not, you will be interested in this book, fully illustrated.

THE FARMER IS HELPING TO WIN THE WAR—NATIONAL SERVICE ON THE FARM REQUIRES MECHANICAL POWER

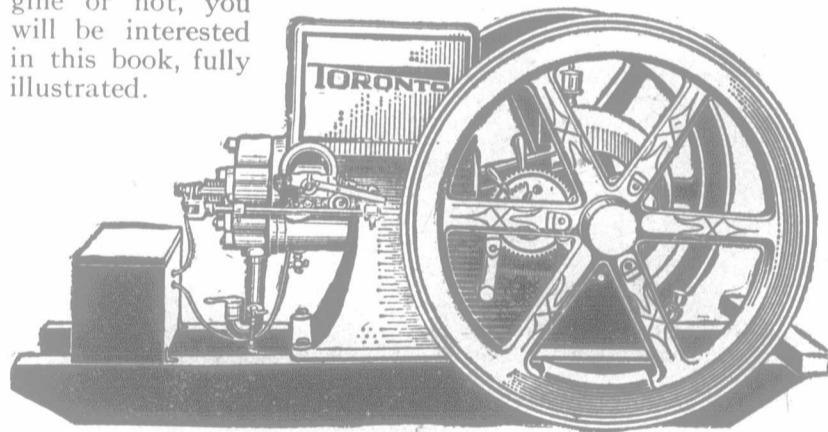
The National Service Board of Canada is urging every farmer to greater production. The farmer has the satisfaction of knowing that the more he produces in the way of foodstuffs, the more he is doing towards winning the war and backing up the boys in the trenches.

Even before war broke out help was a very pressing problem. Hope lay in mechanical power to replace man power, and few farmers were in a hurry to grasp this solution. But war demands action, and the modern, prosperous farmer of to-day is adopting mechanical help on his farm, to his benefit for all time to come.

TORONTO STABLE EQUIPMENT

Chore-time must be cut down in the stables to-day by the frge use of labor-saving devices. We have studied the problem from the inside, and in "Toronto" Stable Equipment we offer steel stalls, stanchions, water bowls and other fittings that solve the labor problem, as well as make for vastly more comfort to the animals in the stables.

Don't delude yourself with the hope that in a few years labor will be plentiful and cheap—it won't!

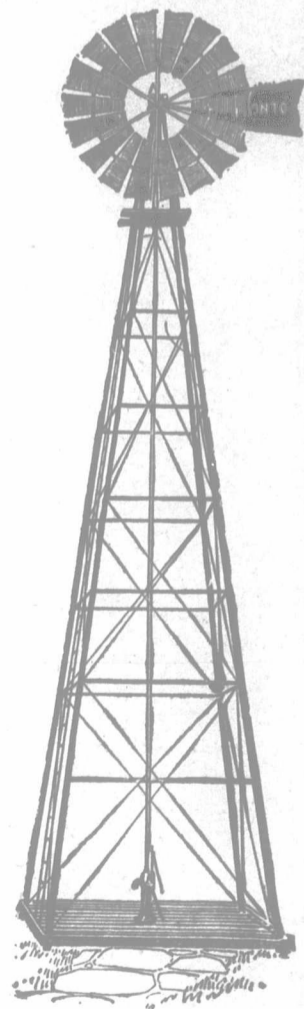


You Will Need These Booklets In addition to the booklets on **Ensilage Equipment and Gasoline Engines, already mentioned, we have prepared printed matter on Toronto Automatic Water Systems, Grain Grinders, Pumps of all descriptions, Stable Equipment and Wind Mills.**

FREE POWER

The Toronto Wind Mill is like a free connection with a great electric power plant. At no cost to you it turns into useful work the enormous energy of the winds. Toronto Wind Mill is the most thoroughly efficient and satisfactory means yet devised for using this power. Sturdy enough to withstand any gale that blows, yet it will pump in breezes so light that other mills stand still.

The many advantages of the Toronto Wind Mills and the various Toronto Pumping Outfits are fully described in the booklet. Write for it to-day.



TORONTO ENSILAGE CUTTERS

Here is a machine that you need right now! If you are coming to the Exhibition, we will show you just how it works. It is exceptionally easy running and very moderately priced. Every dollar you invest in the cutter will show a profit and save labor. A 6 h.-p. engine and a 10-inch cutter will fill a 35-foot silo to the top. Write to-day for book on Toronto Ensilage Equipment.

The Toronto Ensilage Cutter was originally known as the Thom's Patent Pneumatic Silo Filler, and has been operated successfully over twenty years. With many important changes from the early models, it is still the leader.

TORONTO SILOS

Right in line with your plans for greater profit and production is the Toronto Silo, which, with the new Hip-roof, has a storage capacity 15% greater than the old style silo. Our new construction absolutely excludes air, and delivers the ensilage juicy, green, and in very nutritious condition for your cattle. This suggests but vaguely the vast superiority of Toronto Silos, full details of which will be found in the book mentioned above.

TORONTO EXHIBIT AT THE TORONTO EXHIBITION

The most important things you will see at the Exhibition are those that will help you in your work for the rest of the year, and will enable you to make more money on your farm. We have arranged for a very complete exhibit of Toronto Farm Equipment. It really means more in money to you than it does to us, that you see this exhibit. The "Toronto" Demonstration is

ONE THING YOU MUST NOT MISS

ONTARIO WIND ENGINE & PUMP CO., Limited, Atlantic Ave., TORONTO

Northern Ontario

Northern Ontario is an immense, forest-robed land, stretching from the Province of Quebec on the east to Manitoba on the west, and extending north for 770 miles from Old Ontario to Hudson Bay, an area of 333,000 square miles, or 208,000 square miles larger than the British Isles.

Its climate is similar to that of Manitoba, and its soil is as rich. There are from 16 to 20 million acres of arable land, with only a handful of people say, 250,000, making up its population. Its forest wealth is very great, its mineral wealth alluring, and its volume of water power grand, for there are countless lakes, lakelets and rivers large and small. Game and fish abound, making it the sportsman's delight. Already there are thousands of miles of colonization roads and steam railways, spreading like a spider's web over a huge part of that vast new land. Villages, towns and cities have arisen with a wonderful modern equipment. Northern Ontario calls, not for the weak and careless, but for the hardy, resolute, self-sacrificing pioneer. Some day it will be the home of millions and in the teeth of frost and fire and all other natural obstacles, as in the Prairie, it will, like Ontario to the south, blossom as the rose.

The following features.—Crops, timber, and minerals, tell in brief detail what the new land is and what it has done.

CROPS.

The different kinds of crops grown in Northern Ontario are cereals, legumes or hay crops, roots and fruits. If regard be paid to proper variety, and right time to seeding, many kinds of grains do well. Here the beginner should get information from older settlers or from the local representative of the Department of Agriculture. Late maturing grains may be sown for hay. Corn cannot be profitably grown but in certain parts. All kinds of clover have excellent growth, and large returns of various nutritious hay are got. Clover and timothy, with exceptional quality and vitality of seed, are profitably grown practically all over the agricultural areas. The right varieties of alfalfa give very good results in many parts. Avoid southern grown United States seed, and use seed of Grimm, Ontario Variegated or of the Russian varieties. Alfalfa will not be so much missed where red clover and alsike grow luxuriantly. The roots and vegetables of Northern Ontario are not excelled in abundance of growth by any part of the Province. Potatoes show great yields and mangels and turnips do well. An early variety of potatoes should be planted, particularly in the newer areas: for the spring and early fall frosts injure the crops of late maturity: whereas in the



A Harvest Scene in Northern Ontario.



Pulp Wood is a valuable asset to the Settler, being worth up to \$11.00 per cord.

older parts, pretty well cleared of timber, summer frosts are gradually going away and the risk of hurt is less. Vegetables of almost any kind give excellent returns. Apples are suitable only along the north shore of the Great Lakes and around large, inland lakes, but crabapples do well in a wider range. The beginner should make judicious inquiry as to the growing of fruit, strawberries, raspberries, gooseberries, currants, etc., practically all kinds of small bush fruits are grown successfully. Many small fruits such as black currants, blueberries, strawberries, raspberries, are growing wild and can be gathered and preserved for household use.

Coming to closer particulars.—Spring Marquis wheat, in rich clay loam, is grown 5 feet tall, heads averaging 4 inches long, 40 bushels per acre; in lighter soil, 4½ feet tall, heads average 2½ inches high, 35 bushels per acre. Oats, white, panical, about 5½ feet high, strong in straw, head large and well filled, first-class quality, averaging 60 bushels per acre; Banner type, 4 to 5 feet high, straw good, much grain plump and well filled, averaging 60 to 80 bushels per acre. Barley, O. A. C. No. 21, about 5 feet tall, good straw, heads averaging 2½ inches, well filled; O. A. C. 6-rowed, 52 bushels per acre; common 6-rowed, 4½ inches high, heads 3½ to 4 inches, grain plump and plentiful, 40 bushels and well over per acre; a 2-rowed barley of the duck-bill type, about 4 feet tall, good straw, heads averaging 2½ inches long, plump and well filled; Hulless barley, about 3½ feet tall, heads 2½ inches, well filled and kernels plump. Rye, over 6 feet, heads 5 inches, well filled; also 6½ to 9 feet high, straw good, seed plentiful and of good quality. Flax, good quality of fibre and well seeded. Millet, 5½ feet high, abundance of leaves and well seeded. Red clover, 4 feet high, large heads and good leaf development, can yield 6 to 8 bushels seed per acre; also second crop 2 feet high, with well developed flower heads. Sweet clover, sown June 1st on virgin soil has grown as high as 8 feet by August 15th. Timothy, 4½ to 5½ feet high with full heads from 3½ to 5 inches long, yielding good hay and seed. Alsike, 2 to 2½ feet high, well headed and plenty of leaves has produced as many as 9 bushels per acre. Alfalfa, 3½ feet high, good quality; also second cutting, fine straw, plentiful leaved. Bromes, 4½ feet high. Natural grass, from 4 to 5½ feet high, grows in most localities. Potatoes, 200 bags

(90 lbs.) and up to 400 bushels per acre (conservative estimate). Swedish turnips, 12 to 15 pounds each. Parsnips and carrots, up to 26 inches long. Cabbages, 10 to 20 pounds each. Peas, first-class, no weevil, as high as 38 bushels per acre.

TIMBER.

The timber of the great clay belt of Northern Ontario is principally spruce, poplar, balsam of gilead, balsam, with occasional groves of jack pine. Red and white pine are seldom found except on the southern border. The timber is chiefly valuable as pulp, although quantities suitable for lumber are to be found where the land is high. Spruce up to a diameter of 20 inches is not uncommon. Balsam of gilead and poplar are abundant on the high lands and make valuable lumber. Much of the spruce is of small dimensions, average from 4 to 10 inches in diameter. The pulpwood alone of Northern Ontario is a grand asset and a great opportunity for investment. Along the line of the National Transcontinental Railway there are about 300 million cords.

MINERALS.

The total value of the mineral output of Ontario is \$57,856,375 for 1915, as against \$46,295,959 for 1914. This is an increase of \$11,560,416 of which \$10,588,756 represents the increase in valuation put upon the nickel and copper contents of the Sudbury mattes. But even on the old low basis of valuation the increase is \$684,129.

Gold exhibits a large advance in 1915, to be credited mainly to the mines of Porcupine, but offset to some extent by a decrease in silver production, its output, however, being 23,730,830 ounces. In gold production Ontario stands first among the Provinces. As high as 411,588 ounces of gold, worth \$8,501,391, were produced in 1915, as compared with 268,942 ounces, worth \$5,529,767 in 1914, an increase of over 53 per cent.

The demand for nickel and copper for munition purposes has been abnormally great, and the mines have been worked to their utmost capacity.

LAND SETTLEMENT SCHEME FOR RETURNED SOLDIERS.

Returned soldiers who are desirous of going upon the land under the Land Settlement Scheme of the Ontario Government, will be sent to the Agricultural Training Depot established on the Government Experimental Farm at Monteith, on the T. & N. O. Railway 444 miles north of Toronto. During the training period the men will be paid at the rate of \$1.10 per day. In addition, in the case of married men, or men with dependents, an allowance of \$6 per month per child under the age of 16 will be made, together with an allowance of \$5 per month for the wife, this grant being in lieu of that which under military service would be received from the Canadian Patriotic Fund, the maximum grant under this provision being \$30 per month. An additional grant of \$20 per month will be paid in lieu of the Dominion Government Separation Allowance, which is paid to the wives of soldiers on active service.

The Colonies will be established adjacent to the line of railway, and it is expected that the adoption of the community system will greatly assist in developing the social side of farm life.

Returned men wishing to take advantage of this scheme should communicate with Mr. Albert Grigg, Deputy Minister of Lands and Forests, Parliament Buildings, Toronto, Ontario.

For further information relating to the Public Lands of Northern Ontario write to

H. A. MACDONELL

Director of Colonization, Parliament Bldgs., Toronto, Ont.

THE HON. G. HOWARD FERGUSON
Minister of Lands, Forests and Mines

MODERN FARM EQUIPMENT

Must necessarily include EDDY'S FIBREWARE Milk Pails, Butter Tubs and General Utility Pails. For this Ware will not transmit taste—is easily cleaned because of its smooth impervious surface—and is light to handle.

Here is what a well-known New Brunswick Dairy Company has to say about these Tubs. The President of the concern writes :

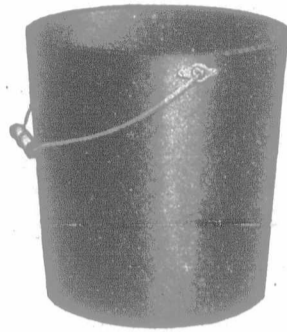
"We have packed our butter in them in preference to the ordinary export boxes, and it has always turned out sweet as a nut when brought out of cold storage.

"Further than this, we might also say that there is practically no shrinkage whatever in the butter packed in these Tubs, while there is a certain amount of shrinkage from the wooden Tub.

"We have had quite an extended experience with this Tub, and it is beyond doubt unexcelled for packing butter, and particularly so if the butter is to be used for local consumption, or at near enough points for the Tub to be returned; because it can then be scalded and be as good as ever, while the wooden tub invariably shows the brine coming through, which rusts and spoils the appearance of the tub so that it cannot be used again."



General Utility Pail



Milk Pails



Butter Tub or Spice Pail

MADE BY

The E. B. EDDY COMPANY

HULL

::

CANADA

AND SOLD BY GROCERS AND HARDWARE STORES THROUGHOUT CANADA

PEERLESS PERFECTION

Absolute Security

WHEN you go away for a day or turn in for the night, you are certain your stock is locked in—they can't get over, under or through the spaces—a perfect fence for hilly or uneven ground, through streams; protects poultry, ducks, geese, sheep and hogs. Can't sag or break down and will turn an unruly horse.

Peerless Perfection Fencing

is made of best heavy Open Hearth steel fence wire, the impurities burned out and all the strength and toughness left in. Makes the fence elastic and springy. It will not snap or break under sudden shocks or quick atmospheric changes. Our method of galvanizing prevents rust and the coating will not flake, peel or chip off. Every intersection is securely clamped with the famous Peerless Lock.

Send for catalog. It also describes our farm gates, poultry fencing and ornamental fencing.

Dealers nearly everywhere. Agents wanted in unassigned territory.

The Banwell-Hoxie Wire Fence Co., Ltd.
WINNIPEG, MAN. HAMILTON, ONT.

Save Steps—Save Work—Save Time

Put This Water System in Your Home

Empire Water Supply Systems are simple in design, compact, powerful, and give maximum service at minimum operating cost. They do all your water-carrying about the house, and for the stock in the barn.

You simply open a tap, and you have water instantly—anywhere, everywhere. Water in your bathroom, kitchen and cellar; water under pressure for fire protection. The "Empire" brings you city conveniences, safety and comfort, at little expense. Gasoline, electric and hand outfits.

Send to-day for Information Blank—fill it in, mail it, and we will select an Empire System suited to your needs and estimate its cost Free of Charge.

The Empire Mfg. Co. Limited
East London, Canada

Branch Office:
119 ADELAIDE STREET WEST
Toronto

When writing advertisers will you kindly mention The Farmer's Advocate

YOUNG MEN OF ONTARIO
IF YOU CANNOT GO TO WAR GO TO THE
**ONTARIO - AGRICULTURAL -
COLLEGE GUELPH**

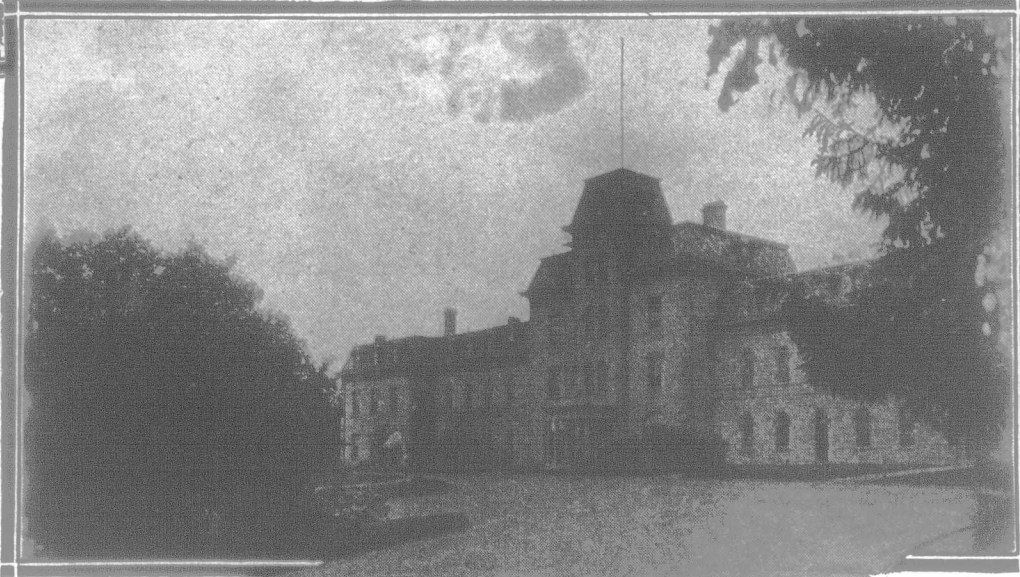
You will help yourself your farm and your nation
by studying the best farm methods during the winter.

You Can Attend this College

Because only Public School education is necessary for admittance.

Because the College year commences Sept. 21st and closes April 15th, in order that students may work at home during the spring and summer.

Because the tuition fees for Ontario students are only \$20.00 a year, and board is secured at the low rate of \$4.00 a week.



THE MEN'S RESIDENCE

You Can Attend this College

Because five months' holidays in the summer give many students an opportunity to earn money to meet college expenses of the following year.

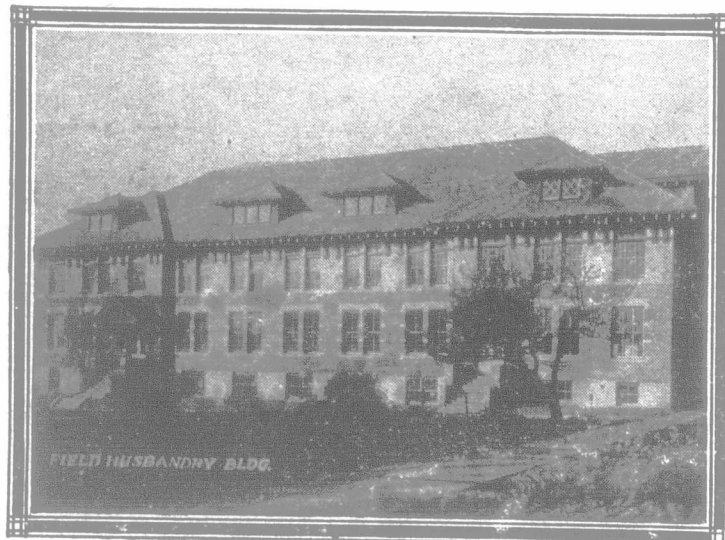
Because all first-year students are paid for the work they do on the farm. This helps to pay expenses.

Because if you wish to take the Four-Year Course for the Degree of B.S.A. matriculation standing is not necessary.

We Live in Perilous Times

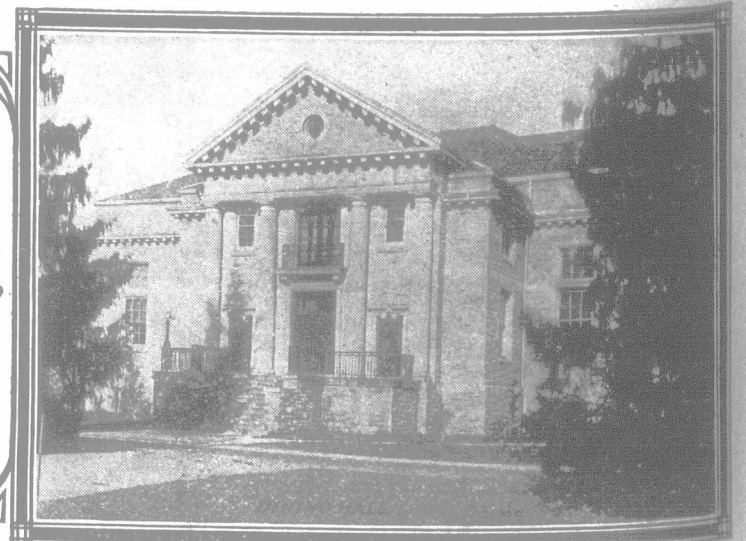
None realize it more than the Ontario farmer. His is one of the three principles of defence upon which all others rest, and he is putting forth every effort to safeguard the nation. **Nothing will assist him more in this noble work than to send his son to the College for one winter or more.** He will gather ideas and information which will stand for greater enthusiasm, the latest practical methods as proven by actual experience, and bigger and better crops from the old homestead.

This will increase the farm produce and profits, not alone: it will develop the young man himself. **Give him his chance.** Let him get out to rub shoulders with other young men from all parts of Canada. It will broaden his viewpoint and will hasten the development of a fine, strong, intelligent manhood. The Provincial Government makes it as easy as possible by keeping the expense at an extremely low figure. The outlay will be repaid a hundred fold. **We must organize for success after the war.** A scientific agricultural education will pay the young man and it will pay the nation.



FIELD HUSBANDRY BLDG.

**COLLEGE
- OPENS -
SEPT. 21 ST.
1917
CLOSSES
APR. 15th. 1918**



The two winters' course includes instruction in—varieties and culture of all farm crops, care and judging of all farm stock, farm dairying, poultry raising and vegetable growing, farm surveying and drainage, road making, farm book-keeping, carpentry and blacksmithing, farm water supply, veterinary treatment, soils and

fertilizers, bees, extermination of insects and plant diseases, eradication of weeds, English literature and composition, public speaking, etc., etc. The whole course treats of subjects which are of practical interest on every farm. **The result is a practical education which can be applied to all farm work.**

Learn more about the Courses which the College offers. Write the Ontario Agricultural College, Guelph, for a College calendar which gives full information. It will be mailed immediately on request. Mention this Advertisement.

THE ONTARIO DEPARTMENT OF AGRICULTURE, Parliament Buildings, Toronto

SIR WM. H. HEARST, Minister of Agriculture

DR. G. C. CREELMAN, Commissioner of Agriculture



ONTARIO

Seed

The b
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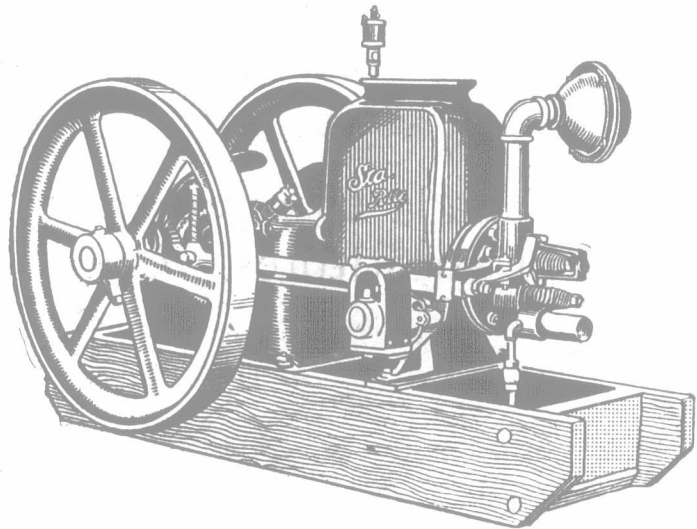
Let the Renfrew Sta-Rite Help You to Farm Intensively

SOMEONE has calculated that it required 50,000 acres to supply the meagre necessities of each savage; while less than 25 acres are available for the exacting demands of each citizen to-day. Add to this the enormous pressure upon the farmer with the whole world pleading for more and more intensive cultivation, and then you will understand why the farm gasoline engine is the farmer's "right hand man" to-day. The

Renfrew Sta-Rite Gasoline Engine

solves the busy farmer's problem. No time has he to coax a complicated engine to do its work. That is why the extreme simplicity of the Renfrew Sta-Rite construction appeals to every farmer.

The Renfrew Standard takes in the fuel, lights the charge and evacuates the cylinders in the simplest manner with very few parts. It develops full power with less fuel.



Write for circular describing the extremely economical and simple fuel feed system, the make and break igniter, the oscillating magneto and many other efficiency features that make the Sta-Rite the ideal farm engine for every kind of work.

The Renfrew Machinery Co., Limited

Head Office and Works: Renfrew, Ontario

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Agencies Almost Everywhere in Canada

The Standard Cream Separator

Besides out-skimming other machines (getting all but one-tenth pound of cream per 1,000 pounds of milk skimmed) the Standard is the easiest to clean. There are no milk or cream tubes to clog. The few parts coming into contact with the cream can be reached instantly. The simple bowl can be cleaned in a few minutes. Owing to the wide space between the tubular shaft and inside edges of the discs there is no choking, rendering the cleaning of the discs extremely simple. The self-oiling system and oil proof housing system banish all leaks on to the frame. Write for booklet describing these and more exclusive Standard advantages.

The Renfrew Truck Scale

saves infinite bother about weighing anywhere on the farm. You can absolutely depend upon its accuracy. To every scale is attached the Government Inspector's certificate. You can weigh anything from a pound to a ton. It wheels around like a truck. Every farmer needs one these busy days. Write for scale booklet.

Won't be at Fairs

The Standard Cream Separator will not be exhibited at the Fairs this year for two reasons:

First, because of the scarcity of machines caused by the unprecedented demand, although our output is sixty per cent. higher than any preceding year.

Second, to help reduce operating expenses during these times of war and high material costs, thus keeping the selling price as low as possible.

TEAR OUT AND MAIL COUPON TO-DAY

The Renfrew Machinery Co., Limited,
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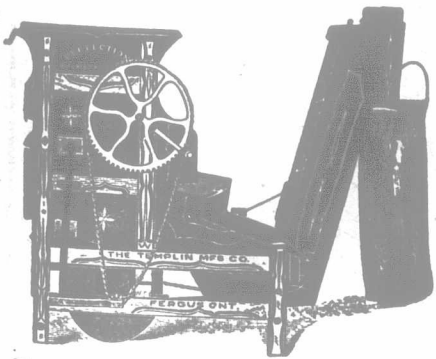
Please send free literature about the Renfrew Sta-Rite Engine.

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Perfection Seed and Grain Separator (Patented 1901)



The best mill ever built. Every farmer who uses one says so. Will do work no old style mill ever attempted, and do it right. Turns twice as easy as any other as it has two balanced shoes. The curtain screens and galvanized deflectors, used only in the Perfection, make a perfect separation of wheat from oats. Cleans clovers of all kinds, and pays for itself every season. Will clean flax also. The PERFECTION always wins when compared with others. Further facts explained in our free circular "A". Write for it or see nearest agent.

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GRAIN and STRAW

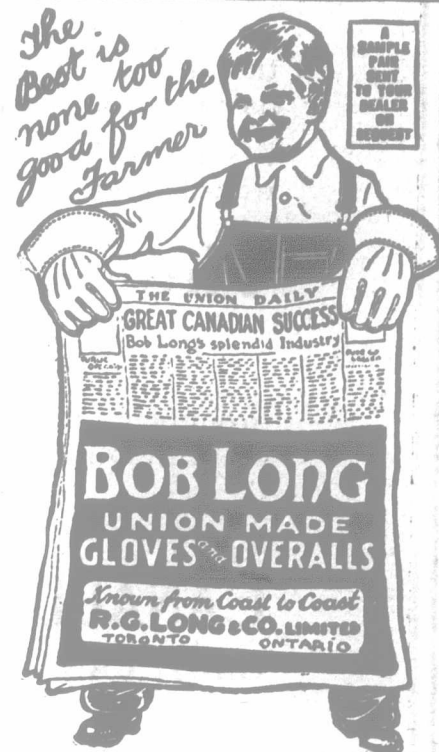
Always in the market to buy.

Write us for prices. Get your name on our list and we will send you every Saturday list of prices we are paying for following week.

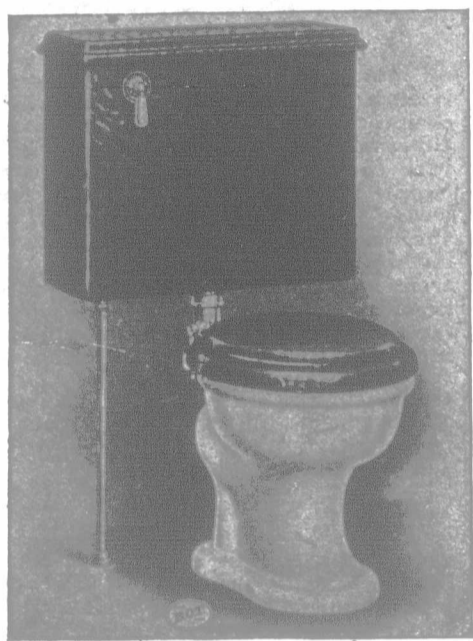
Call on us if you are in town during Exhibition and make arrangements with us to handle your hay, etc.

Reference—Bank of Toronto.

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Farmers' Wives!



AFTER a hard season's work, brought about by labor shortage and abundant crops, you are entitled to winter comforts and sanitary surroundings for all time to come. A



water closet installed in your house will end winter hardships and protect your family against unsanitary surroundings in summer.

We have arranged with every plumber in Canada to represent us. Visit the one in your town. Do not accept substitutes. Our *tank, seat and bowl* all bear our trademark, thus.



These three letters are a guarantee to you for five years against defects. Ours is the only bowl that will not freeze or clog up, and *you are too far from repair men to risk buying an inferior product.*

ACCEPT THIS FREE OFFER!

With every B. O. T. outfit ordered, we give the plumber, for the purchaser, free plans and complete, easy-to-follow instructions for a septic tank that can be built by ordinary farm help.

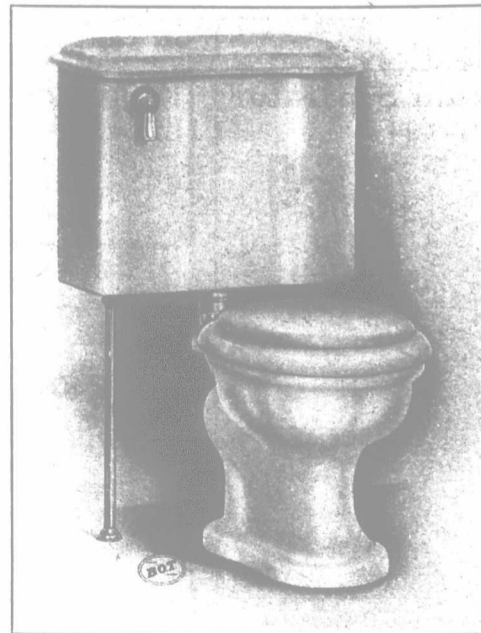
Have the plumber mention your name when ordering and we will see that these plans and instructions are delivered to you.

The Time To Act is NOW!

Before winter sets in see that you have this sanitary improvement in place. Modern septic tanks, built according to our plans, have been tried on many farms, and in actual use have proven the most sanitary and satisfactory method in existence.

See your plumber this week and get your order in early.

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The Farmer's Advocate and Home Magazine

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LONDON, ONTARIO, AUGUST 30, 1917.

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EDITORIAL.

The weather on Parliament Hill seems very unsettled.

"Carry on" is a good motto for fairs as well as armies.

Canadians are waiting for the politicians to straighten out their crooked lines.

The live-stock judge who pleases everyone hasn't yet appeared in the ring.

We would like to see all those who criticize the farmer managing a farm themselves.

Fall is close at hand and for most farmers it is about the busiest season. Sow some wheat first.

Some plan should be evolved to bring more farm implements and machinery out to the fall fairs.

The average man does not love work, and the average urbanite especially does not love farm work.

We hear much of price fixing at this time. At the moment there are many other things in Canada needing fixing.

Have a good time at the fair and plan to learn something that the outing may be profitable as well as filled with pleasure.

After all, no one can blame the boy who has milked cows, curried horses, or fed pigs all summer, if he does get just a little bit interested in attractions remote from the live-stock ring.

Since the Ontario housewife found twenty-four large potatoes in one hill, and the ground around all the other hills cracked open to give the tubers room, we haven't heard so much about famine.

It is almost as sickening to hear some of those beyond the age of military usefulness brag about their bravery as it is to listen to the street corner slacker recount how he gave the recruiting sergeant the slip.

In the fall is the time to plow for next year's crop. If necessary get a new plow with two furrows instead of one, and then put the power ahead to pull it. It matters not whether it be horses or tractor, have enough power.

Farm power is a live question just now, with acres and acres requiring fall cultivation, and farm power will be equally important next winter to cut, chop and grind. The Ontario tractor must have power on the belt as well as to pull.

Toronto Exhibition is here again and so is our annual Exhibition Number. In this issue there are five pages of illustrations and five special articles on judging live stock, which should appeal to all our readers and particularly to the young men of the farms and those especially interested in all classes of live stock.

Ontario crops have given the farmer considerable work but he has proven equal to the task. Canadians must feel thankful to the men on the land for the efforts they have made this year. Of course, there are still a few people who dilate upon crops rotting and food wasting because farmers will not pay inexperienced men five dollars a day, but these are only a few and do not count in the harvest fields.

Judging Featured.

In this issue we have endeavored to give our readers a special feature in the form of five articles on judging live stock, the whole profusely illustrated, that those interested might be able the better to grasp the significance and importance of a thorough knowledge of the different types of breeding animals with which they come in contact. We have worked the camera to the best of our ability to show the main points to be looked for in judging. We have spared no expense in illustrations and articles. Among the descriptions are articles written by some of the best known live-stock men in Eastern Canada, and we would advise all our readers to carefully study these articles and the illustrations which go with them. It is not our purpose to attempt to make expert judges of all our many readers, but the breeder and owner must necessarily know what to look for in his stock if he is ever to attain the top-most rung of the ladder in his breeding operations. We hope to be able to interest young men and older men in the establishment of pure-bred herds and flocks, or if not pure-bred, of herds and flocks which at least approach in type that at which the best breeders of pure-breds aim. Live stock is the salvation of our agriculture. It is impossible to stand still. Progress must be made or otherwise retrogression will occur. It requires energy and knowledge in order to maintain the steady advance toward the goal of high-class herds and flocks. We hope that through a study of these articles a better knowledge of the various points to be looked for in the different classes of live stock will be disseminated throughout the field which this paper covers. The illustrations and articles may be of some value to teachers in their efforts to interest young minds in agriculture and the bearing of live stock upon its progress. Professor Day, Professor Barton, and Professor Arkell who is at present Acting Live Stock Commissioner, are authorities on the subjects they have so ably handled, and in working as expert judges before the camera have conferred a favor upon "The Farmer's Advocate" and its large clientele.

Exhibitions—Their Value.

Eastern Canada is again into the exhibition season, and it is gratifying to realize that through three years of conflict, such as the world had never previously seen, our larger fairs are able to carry out their programs as before. These fairs must have a value to and a grip upon the people, or otherwise they could not have survived the times. And there must be in them something more than a source of temporary pleasure, something which helps those who attend to think and improve. In short, they must be profitable as well as pleasurable. Every fair, to justify its existence, must have an economic value to the country or section influenced by it. Most of the people who attend appreciate the opportunity to get away from work for a day or two and have what is considered a genuine holiday, and yet we doubt if the attendance at the larger fairs would run to the figures which it does if it were not for the fact that the spice with which the whole is savored is the education received almost unconsciously in seeing the various attractions in the form of exhibits in different buildings, in front of the grand-stand and in the stock barns and stock rings. While we enjoy the fair and look upon it as a day out, the real value and pulling power it has is from the fact that those who attend learn to get more out of life and to make a wider and better use of that which they have at their disposal. For instance, the man of the farm sees better stock, becomes interested in the improvement of his own herds and flocks, gets ideas as to conformation and quality in the different individuals, and carries these away with him to act upon them later. Particularly is the young man interested, and the future of our live-stock industry

depends upon our young men. So important have our leading fair boards deemed this feature that they are encouraging the young men through judging competitions, which interest old and young alike. This is only one point. Vegetables, fruit, grain, all these have their value in education and interest, and while on this point we might suggest that many fairs could well put more importance upon grain, roots, vegetables and fruit, because these are among our staple crops. Better prizes and improved positions would increase interest.

And in the buildings those fair-goers who see as they should see learn something. We are told that eighty per cent. of what we know we learn through the eye, and what better opportunity could there be than that which a large fair presents in depicting articles not only manufactured but in the process of manufacture? In this connection we would like to state that the average rural fair-goer would appreciate a bigger showing of farm implements and machinery, and firms interested in the manufacture of these, and fair boards whose business it is to encourage exhibiting, would do well to make an effort to increase the showing.

There are those who do not believe in grand-stand performances, but as a feature of the big fair they are distinctly worth while. A clean entertainment, replete with skill and humor, is always elevating and worth while. This should be made the best possible, and is always a feature more to be desired than the cheap Midway, which is of questionable value.

De-centralize Experimental Work.

Experimental work is never done. From year to year as experiments are conducted they simply reveal the importance of carrying on the work to greater things, and open up new channels for the investigator's efforts. In following the work we are more than ever convinced, however, that it should be de-centralized, provincial and in so far as possible local. It is our opinion that experimental work in cereal husbandry should be under the control of provincial authorities and should be of a provincial nature, with the farms spread over representative districts so that the findings might be of more value to those districts. It is a well-known fact that experiments in one province give results vastly different from those in another province, and for that reason it might be better to divide the work and to give the head of each station complete control that his work might be most valuable to his district. The work is of most value only to the men in the different districts where the farms are located, and it is important that reports reach the farmers in these localities promptly. A short time ago the annual report of the Dominion Experimental Farms System came to hand. It was for the year ending March 31, 1916; really the results of the 1915 crop. It is two years late, and while it contains a great deal of valuable material we believe that better work could be done if the various stations located throughout the Dominion got out a report of their work separately, and it could be circulated over the Province or parts of the Province to which these results would be of most importance. Then the whole could be compiled in one large volume if thought advisable by the Department to keep the records all together. Experimentation must particularize. Local conditions of climate, soil, etc., must be considered. What is good in Saskatchewan is often useless in Ontario or Nova Scotia, and vice versa. For this reason separate reports from each farm or station, and these under control of Provincial authorities and published promptly, would surely do more good than a large volume containing all the reports and sent to all on the mailing list. Separate reports would save expense and would do more good if distributed only in the districts adjacent to each experimental farm, and they could be gotten out much more promptly if a special effort were made.

ing fields." In Switzerland or possibly in a cruise to the Norwegian fiords," he promptly answered. Well, was it not better he should spend his money in his own country and breathe the ozone from the Atlantic and play the "ancient and honorable game of golf" employing the little barefooted fisher laddies as caddies? Many times better I still say, and I for one shall be glad when the day comes to see the potato field above mentioned again incorporated into links. On that summer night there was no thought of war or scarcity. Heavy-laden wagons filled with barrels of potatoes were passed on their way to the railway whence that evening the barrels would be shipped to the cities, the carts returning to the farms filled with "returned empties."

On the golf links a friendly warfare was taking place. Elderly gentlemen who had all day been engaged in serious business were "addressing their balls" with as serious and deliberate an aim as if the fate of nations depended on the success of the drive. Youths and maidens were playing also enjoying the game of golf too, but maybe playing one older and to them more important than golf "ancient and honorable" as it calls itself. To return, however, to the vegetable product which has rendered the coast of Carrick famous, it is reported and currently believed that one farmer has made £10,000 (\$50,000) from the crop of 1917. This must represent his gross returns, but it should yield a quite considerable sum to the Government in the shape of taxes on excess profits. In former years I have heard farmers aver that they had not made the price of a "new gown for the guid wife" over and above working expenses and interest for their money. This, I may say, I did not believe even then, but enough truth is in it to show that the business is very speculative.

Some growers of this crop in Ayrshire and elsewhere are anxious about the future of their business. Potatoes are a perishable commodity. They purpose to build potato factories where farina or potato flour, once a staple part of our children's food, could be made and the waste products might be made into, for instance, potato spirit to be used as a source of motive power instead of petrol. The cost of a main product is reduced by increasing the production of by-products. Scottish growers are of opinion that the production of potatoes should be encouraged to the full extent of the new uses found for products manufactured from them.

Britain's Patriotic Agriculture.

EDITOR "THE FARMER'S ADVOCATE":

Everywhere in Britain is agriculture "pulling out" a bit. It is doing an extra little bit somewhere and some how, as the text of this contribution will prove.

No part of the Kingdom can show better results generally in the way of co-operative agriculture than Wales. The success of certain of the Welsh Farmers' Societies is remarkable. In some of the counties nearly all the farmers are organized co-operatively. Carmarthen is a case in point. Probably the Carmarthen Society holds the record for the largest number of co-operative farmers proportionate to the total number of farmers in the county. Started in 1904 with 250 members it has now nearly 1,600 members. Its business is mainly to purchase requirements in bulk and retail them to its members. The sales in 1904 were less than £6,000 in value; in 1916 they were over £150,000; and the profit last year was larger than the whole value of trade done in 1904. These figures are eloquent of what can be done by co-operative organization in agriculture. The public gains as well as the farmer, because by the excision of a multitude of middlemen's profits the farmer is able to produce more economically.

An ingeniously simple little scheme for combining thrift and allotment holding has been invented by the Poole (Dorset) Allotments Association. On alternate Mondays one of the members of this Society sits from 7 to 8 p.m. at the Friendly Societies' Hall to receive monetary deposits from his fellows. There is no great novelty perhaps about this procedure, but the idea behind it has a certain freshness. It is this: When seed time, or the occasion for ordering manures, new tools, or what not, comes round the poorer sort of working-man is apt to find himself a little short of the necessary cash. The Poole Association provides a means for guarding against this danger. It invites its members to pay in to a sort of penny bank every fortnight the estimated value of the produce of the allotment during the previous 14 days. The scheme has not been running long enough for judgment to be passed on its effectiveness, but the English Agricultural Organization Society (to which the Poole Allotments Association is affiliated) suggests that the plan adopted may commend itself to other societies in working-class districts.

It is rather surprising that more of our great towns have not followed the admirable example of Norwich in forming a Food Production League and federating therein practically all the allotment holders of the town. The Norwich League, which is affiliated to the English Agricultural Organization Society, is a model to which all its successors—and they ought to be many—should attempt to work. The City Council paid the preliminary expenses. The League is registered under the Industrial and Provident Societies' Act and shares of 10s. nominal value are issued, 1s. being payable on application. The League has nearly 1,000 members, and about £500 nominal capital. Its turnover in the first 4 months of its existence was about half this amount. There are 11 branches, covering different wards of the city, and the Secretary of each of these collects orders for seeds, tools, manures, and so on, bulks them, forwards them to the General Secretary, apportions the goods when received, collects the money, and hands it

over to headquarters. The League holds 10 acres of permanent allotments, and is taking up 7½ acres more shortly. This land includes a capital market garden which the tenant was unable to carry on owing to shortage of labor. At Michaelmas next the League will have a fine compact estate of 15 acres, with two cottages, stabling, piggeries, etc. It already has a stall in the market for the sale of surplus produce. It sprays the potatoes of its members and catches sparrows for them—in fact it does a score of things, large and small, for its members co-operatively, and in consequence much more cheaply and effectively than they could individually do these things for themselves.

The statement by the Parliamentary Secretary to the Board of Agriculture that a loan of £125,000 had been made from the Development Fund for the purpose of the purchase of an estate near Newark on which to establish the Sugar Beet industry, "when circumstances permit," has revived the discussion in the press of the general question as to the possibility of growing sugar beets profitably in England. The associations which have devoted themselves to the promotion of English sugar beet growing have done most useful service. It has been proved that there is a great deal of land in this country on which sugar beets can be grown as successfully as in most parts of the continent, both as to the yield per acre and the saccharine content. It is to be hoped, however, in the renewed discussion of this subject that there will be less facile dogmatism

of course, be done just as well by the light of the moon as by the light of the sun, provided that one can see sufficiently well to be sure that the spray covers effectively the underside as well as the upper side of the leaves. This latter is a point which the experts of the Food Production Department desire to impress upon all growers. If the spraying mixture does not cover the whole plant with a fine mist, disease may attack the crop through unsprayed leaves. In certain quarters the impression still persists that it is necessary to use 2 pounds of sulphate of copper and 2½ pounds of washing soda to every 10 gallons of soft water, whereas the quantities of chemicals mentioned will make 20 gallons of effective spraying mixture. In some places there appears to be a scarcity of "wooden receptacles" in which to mix the copper sulphate; but generally, it is suggested, empty oil tubs or beer barrels well cleaned or lard boxes from the local grocer can be obtained and will serve all practical purposes. It may, perhaps, with advantage be added that a spray of the strength stated whilst thoroughly efficient as a preventive of late blight will not injure green vegetable plants growing between the potato rows, although (in the case of lettuce especially) care should be taken not to waste the mixture upon them; and all such greenstuffs must be thoroughly washed in several waters before being eaten either cooked or raw. During the past week the Royal potato crop growing in the Mall, opposite the King's palace, has been sprayed by representatives of the Parliamentary Food Production Department.

ALBION.

Nature's Diary.

A. B. KLUGH, M.A.

A very attractive bush which grows in damp places beside ponds and streams is the Button-bush, otherwise known as Honey-balls, Globe-flower and button-ball Shrub. Its range in Canada is from New Brunswick to Western Ontario, and it blooms from midsummer to early fall. The flower-heads of this species are spherical, about an inch across and look like little cushions full of pins. Each of the little flowers on these heads is white, tubular and four-parted at the top and they are very fragrant. There are about two hundred and fifty flowers in a head. The leaves are either opposite or in little whorls, and they are oval, tapering at the tip and have entire margins.

The most frequent insect visitors of the flowers of Button-bush are butterflies, with bees a close second as to numbers. Both these insects have long tongues which can reach down into the long, narrow corollas of the flowers. In this plant the pollen is shed on the tip of the style of the immature pistil, and from this position it is removed by insect visitors before the stigma is ready for pollination. Later when the pistil is mature pollen is brought by these visitors from younger flowers.

The fruit of the Button-bush is a green and red ball which becomes bronze after the first frost.

A plant which is common along roadsides and in waste places is the Butter-and-Eggs. It is from one to two and a half feet in height with pale, narrow leaves all up the stem. The flowers are light canary-yellow and orange, hence the common name, and are about an inch long. The corolla is spurred at the base, two-lipped, the upper lip erect, the lower lip spreading.

The insect best adapted to securing nectar from this flower is the Bumblebee, as its weight depresses the lower lip so that a comfortable entrance into the flower is opened for it. When it has entered its long tongue reaches down the spur to the nectar, while its back brushes off the pollen from the stamens which arch over its back. As the Bumblebee backs out the gaping mouth of the flower springs shut after it, like the Snap Dragon of the garden to which this plant is allied. While the Bumblebee thus easily obtains the nectar the honey bees and other light-weight bees have hard work squeezing into the flower. Occasionally butterflies insert their long tongues into the flowers and secure the nectar, and they do not pay the usual toll—the transferring of pollen from one flower to another—which is exacted by plants from the insects which sip of their nectar, as no pollen adheres to the long, slim tongue.

This plant is a perennial and has been introduced from Europe, but cannot be regarded as a troublesome weed. Its range is from Nova Scotia to Manitoba.

The Best Paper.

EDITOR "THE FARMER'S ADVOCATE":

I have been a subscriber of your paper for upwards of twenty years, and consider your paper the best family paper published in Canada. No family should be without it.

N. B.

JOHN C. McLEAN.

Short But Sweet.

Enclosed is our renewal in advance. We cannot farm without the "Advocate." Ontario Co., Ont.

W. C. WHITE.



Fig. 1—Button Bush.



Fig. 2—Butter-and-Eggs.

talked than formerly. In due course, no doubt, sugar beets will be largely and successfully cultivated in England, but the matter is not one to be treated hurriedly as a war emergency question. It is not such a simple matter as some people suppose to persuade farmers to grow the large quantities of beets required. The chief difficulty of the Cantley factory, which has been often referred to in these debates, lay in securing a regular supply of beets sufficient to keep the machinery running economically within about 2s. per ton railway or water distance of the factory. The most economical unit seems to be a factory of 80,000 to 100,000 tons annual capacity. This means an area under beets of 8,000 to 10,000 acres per annum. On a four-course rotation 32,000 to 40,000 acres of arable land worked in turn would, therefore, be required to maintain a regular supply to a single factory; and these figures assume that the whole root crop of the farm consists of beets which in practice would very seldom be the case.

It is reported from various districts that gardeners and allotment men are taking advantage of moonlight nights to get their potatoes sprayed. The work can,

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THE HORSE.

Judging Horses.

BY H. S. ARKELL, ACTING LIVE STOCK COMMISSIONER.

The judging of a horse can never be a mechanical operation. I doubt if anyone, boy or man, who has not either owned or regularly fed, curried, brushed, worked, watered and cared for a horse, can really be a safe, dependable judge. Numbers of those even who have worked with horses all their lives may have many illogical, preconceived notions, which cannot but prejudice or mar their judgment in deciding merit or determining value.

The horse is, above all things, an animal with a purpose in life. Some very willingly, conscientiously or perhaps, spiritedly, are prepared to perform their duty. Others object, and some there are that refuse. This purpose, this duty, the ability of the animal to perform the work that is required of him, must never be ignored by the judge. The work may either be to draw a load, to run a race, to carry a cavalry officer or to make a fine display on a city street. Whatever it be, it is his work. His ability to perform it will depend upon three things:

1. Form. His whole body, legs, ankles and feet, must be so constructed as to enable him properly to perform the work required of him.

2. Construction. His heart, lungs, digestion and circulation must be such as to insure endurance and stamina.

3. Temperament. His breeding usually will determine his intelligence, courage, disposition, in short, all that goes to make up the character of an animal that any horseman would wish to own.

A judge then must needs be familiar with all the curves, angles, muscles, joints of a horse's anatomy, in order that he may be in a position to understand or to estimate how certain conformations will stand up under strain and wear under test. He must, further, know, by continuous handling, whether the hoofs are of the best texture, and shape; whether the pasterns and shoulders are properly sloped; whether the joints are well formed and free from unsoundness; whether the general type of the horse is such as to insure serviceability. Again, he must be familiar with faults of the eye; of the wind; of the digestion; of the circulation; so that he knows at once, or by careful test, how the animal is likely to measure up under different conditions of work and feed. Still further, he must be able to read a horse's character; to determine his disposition; to decide whether he has the heart and intelligence to continue proven and dependable under difficult or trying circumstances. A horse needs brains as much as does his driver. The more exacting or specialized the work, the more frequently will breeding determine his value.

How then are we to judge a horse? In the first place, take him as he stands. How does he measure up under first inspection? Does he fill the eye? Does his whole form satisfy your judgment as to what it should be? We expect to find a clean-cut head, full nostril, firm lips, depth and width at the angle of the jaw, full clear eye, broad forehead, erect ear. There must be no thickness at the junction of the neck with the head. The neck should be reasonably arched of fair length and filling full into the shoulder. Constitution is indicated by depth and fullness in the chest. The shoulder should be long and sloping and blend perfectly into the body. The rib should be well sprung, closely knit and carry well down, giving the appearance of depth and compactness of form. The back should be short and well muscled, while the loin should be short, broad and give the appearance of close coupling. The croup should be long, muscular and straight and the thighs deep, full and plump, with muscle extending well down toward the hock. The quarters, viewed from behind, should carry such a mass of firm, hard muscle as to give the appearance of a strong and compact ham or hind quarter.

The first general view of the horse should be such as to fix the impression as to his form and to enable the judge to accurately determine his constitution, temperament and character. The form, no matter what may be his class, should indicate compactness, strength of muscling, together with symmetry of outline. The horse's disposition will be determined by the appearance of the eye, carriage of the head, fullness of the forehead; in the energy or activity in every movement of the body and the alertness of his position even when standing at ease. A horse may be made to make full confession of himself to a good judge, in the first cursory examination.

Perhaps, I am ahead of my story. The supreme test of a horse lies in an examination of his feet, legs and action. The closest, most critical inspection must be given to these features in arriving at a judgment as to a horse's value. Now, view him from in front. The fore legs should be straight and set well under the horse. This will indicate compactness of conformation and provide for control in action. Viewed from behind, the muscling of the quarters will be observed and the set of the hind legs must be noted. Dropping a plumb line from the point of the buttock, it should be found to divide equally the hock, cannon, pastern and foot. Careful study will indicate the proportion that should be sought between the length of quarter and of cannon bone, the slope of pastern and the conformation of the foot.

The legs and feet should now be minutely examined. The arm should be compact and muscular, and the fore

arm relatively long from the elbow to the knee, thus providing free and easy action. It should be noted that the fore arm is free at the elbow and its muscular development may be taken to indicate the general strength of the horse. Breadth in the knee is desirable and its outline should be clearly defined and prominent. Depth from the front to back is expected, and there must be no tendency toward calf knee or knee sprung. The cannon should be wide, short and full below the knee in order to give the latter proper support. The combination of sinew and bone in the cannon should present a flat, hard, clean, well-defined appearance, thus indicating quality and proper texture throughout. In breeds with feathering, the hair should be fine, soft and silky. The pasterns will be found usually of a similar angle to that of the shoulder, and straight pasterns are, therefore, very undesirable. They should be sloping, strong and of proportionate length. The texture of the feet must be carefully observed. The hoof head should be full, rounded and free from defect, the heels of good depth, the frog prominent, and the sole of the hoof concave. This is one of the most sensitive and most intricate mechanisms of the body, and its size, shape and texture must, therefore, be carefully considered.

In examining the hind legs, conformation of the hocks should be particularly noted. They are frequently seats of disease or injury, and poor conformation in this region is not to be forgiven. The outline should be clearly defined, the point prominent, and there must be no gumminess or meatiness whatever. Examination should be made to ascertain whether there be evidence of Thorough-pin, Bog Spavin, Bone Spavin, capped Hock, Curb and the like. Both hocks should be observed in comparison, as any difference between them will usually indicate trouble. The cannons should be wide, short and clean and found to properly support the hock. Reasonable slope in the hind pasterns is desirable, and they should be strong and of proportionate length. The hind feet must be examined as to size, texture and conformation, as described in referring to the fore leg.

The horse in action should be observed at the walk and trot. This is the final test and is one of the most important. Sluggishness and indifference in movement seriously detract from the value of the animal. Firm, erect, alert carriage, coupled with strong, steady, free movement, present a combination that carry their own recommendation. At a walk, the horse should pick up his feet cleanly and firmly and put them down again as though always under control. He should move straight away, the legs being carried well under him and reasonably close together. The action of the muscles in flexing the foot should be carefully noted. Deflection to the right or to the left at the toe, knee or hock denotes lack of control or improper balance, seriously interfering with the levelness of action. At the trot, the same regular, controlled movement should be observable. Clean, straight going is in keeping with proper conformation in the legs and feet. Careful study of action suggests the spirit, temper, disposition, utility and endurance of a horse and is never to be dissociated from its relationship to structure and conformation.

It has taken a long time to tell the story. A good horseman will make up his mind within but a very few minutes. His decision is perhaps instinctive rather than anything else. Unless in the end, the student can create instinct out of practice, I doubt if he will ever make a judge.

Classifying Horses.

BY WHIP.

The inability of many owners of horses to properly classify them is often demonstrated in the show-ring, and is frequently very forcibly demonstrated to a prospective purchaser, to whom the owner has described a horse he has for sale as being an excellent individual of a certain class, but when the would-be purchaser has gone to the trouble and expense of visiting the premises of the vendor, he is greatly disappointed and also surprised that such a glowing description could have been given of such an animal that practically has none of the characteristics of the class of the animal wanted. Of course, there are many horses that really cannot be classified; that is, they do not in any marked degree possess the desirable characteristics of any of the recognized breeds or classes of horses, as the draft, agricultural, carriage, roadster, saddle horse, or hunter. There are many very useful and reasonably valuable horses that cannot be said to belong to any recognized class, and if we add to the list the "general purpose horse" there are still many that cannot be included. The question then arises: "What are the requisite characteristics of the different classes?" These are points that can be more easily recognized (by a horseman) than described. We will endeavor to somewhat briefly describe the general characteristics of the classes named.

The Draft Horse must be a large animal, weighing, say not less than 1,600 pounds. He must be the type of one of the draft breeds, viz., Clydesdale, Shire, Percheron, Suffolk, or Belgian Draft.

The Agricultural Horse is of exactly the same type as the draft, but has not the necessary weight. He weighs say 1,400 to 1,600 pounds. He is simply a small draft horse. The same animal, when fed up to weigh 1,600 pounds or over, becomes a draft horse, but when in lower flesh and consequently lighter in weight again becomes an "agricultural horse". When

of the same type but quite small, say less than 1,400 pounds, he cannot properly be classified. He is a "misfit" and is usually called "a farm chunk". Many consider such an animal "a general purpose horse," but, in our opinion, this is a decided mistake.

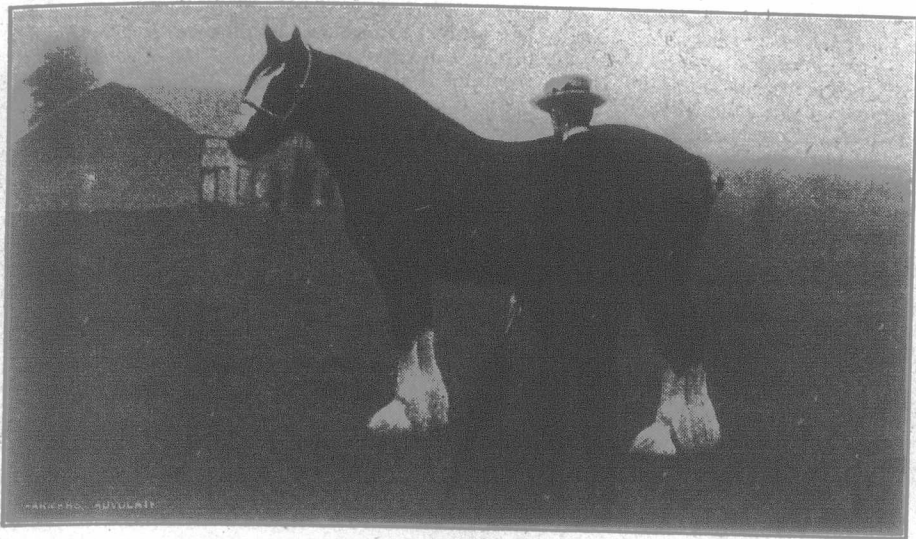
The Carriage, or Heavy Harness Horse must be a stylish fellow, of reasonable size and substance. He must have excessive and flash action, both fore and rear, and be able to go reasonably fast, and at the same time retain the quality of action. He must not pace, neither may he go wide behind. His head should be well carried and crest nicely arched; he must have an attractive, stylish appearance whether standing or in action, at any speed, and must have good manners. The more marked these characteristics are the more valuable he is. It is not necessary that he have great speed, but must be able to trot at a reasonable gait and the faster he can go the better, provided he retains the quality of action. The Hackney or Coach type is considered the proper type, but we frequently notice horses without a trace of the blood of either, win in good company. This emphasizes the value that is placed on action, even at the expense of recognized type. Of course, the carriage horse must have quality and style. A pure-bred Hackney, Cleveland Bay or Coach horse can be classed only as a heavy harness or carriage horse. He may be good enough to be a good individual of his class, but certainly cannot be placed in any other class unless we recognize the "general purpose horse" as a class. It is different with the carriage horse of composite breed. He may have 50 per cent. more or less of Thoroughbred or Standardbred blood, and, as far as general type and characteristics are concerned, he may have as much claim to be classed as a roadster, saddle horse, or hunter, as a carriage horse. How then, we may say, are we going to classify him? Style and action, principally the latter, must be the classifying factor. It is not unusual, especially in horses that have a greater or less percentage of Standard bred blood, to see a pair, probably by the same sire and dam, alike in size, color, conformation, and general appearance when standing, but at the same time not making a team because when in action one shows the style and action of the carriage horse while the other shows those of the roadster. This is a case where action must classify. Many think that a light horse of a certain height, say fifteen and one-half hands, is a roadster, and that the same horse, if higher than that would be a carriage horse. This, of course, is all wrong, size and height have nothing to do in classification in such cases.

The Roadster should be a stylish fellow with reasonable size and substance. He may either trot or pace, but the former gait is much the more desirable. At the same time trotting sires and trotting dams sometimes produce pacers, and vice versa, hence, we do not think that it is right to exclude a pacer from the roadster class on account of his gait. The one gait is a modification of the other. The roadster should not act so high as the carriage horse; at the same time he must have reasonably high action and while we like him to go reasonably close behind, we cannot find serious fault with him if he goes wide, provided this characteristic is not too marked. He must have reasonable speed, not necessarily racing speed, but must in order to win in good company be able to show at least a three-minute gait. By this we do not mean to say that a road-bred horse is not a roadster; he may be a very serviceable road horse, but has not sufficient speed for a show horse. While we like a stylish roadster, we do not demand the same pose of head and neck as we do in a carriage horse. For instance, a horse that poles his nose slightly and is slightly inclined to hug his tail, if he has the other desirable characteristics of his class in a marked degree, may be considered a high-class horse, but a carriage horse that carries his head and tail as described could not be tolerated.

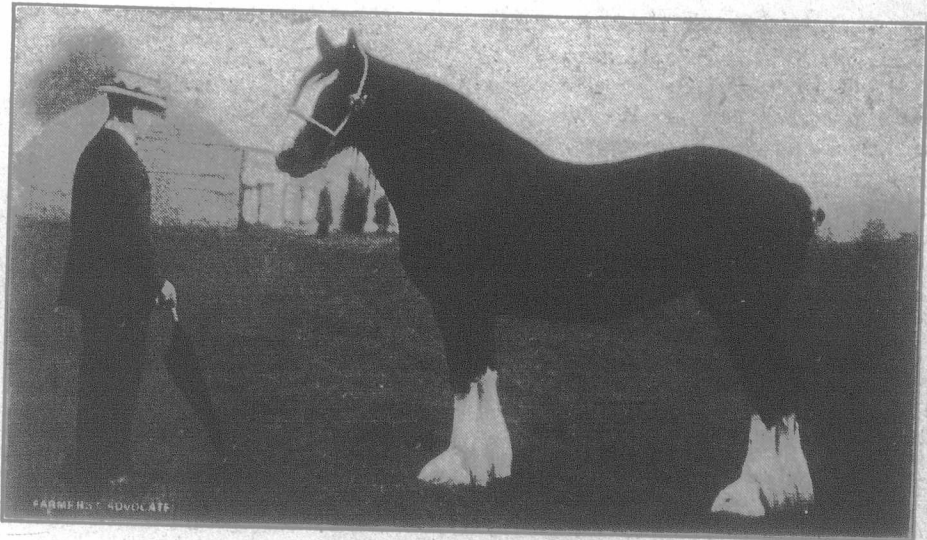
The Saddle Horse should have the conformation of the Thoroughbred reasonably well marked. He must have quality, high withers, oblique shoulders and pasterns. We may say that saddle withers and shoulders on a harness horse are not objectionable, but harness withers and shoulders on a saddle horse are intolerable. The saddle used for flat riding, may, if the rider wishes, have reasonably high action, having an infusion of the blood of the heavy harness horse with that of the Thoroughbred. For flat riding or park purposes he is more attractive to the ordinary observer than the horse of nearer Thoroughbred type, and as he is not asked to gallop long distances, his reasonable height of action is considered an advantage; and, other things being equal, provided he canters well, he usually wins over the fellow with lower action. But, for hunting, the nearer the horse approaches the general type and action of the Thoroughbred, the better. Here, high action, especially at the canter, cannot be tolerated. The hunter must be able to go fast and stay, and the fellow who canters high will soon tire in soft ground.

Just a few words about the "general purpose horse." This, in our opinion, is not an undersized draft or agricultural horse, but one that will give reasonable satisfaction and not look particularly out of place to the plow reaper, wagon, or other farm implement, the carriage, buggy, road cart, or saddle; a horse that is not a high-class representative of any of the classes discussed, at the same time one that can perform the functions of any of them reasonably well, when neither excessive strength nor excessive speed is required. A misfit in endeavors to breed large carriage, road or saddle horses; one that has sufficient size, say about 1,200 pounds or over, but has not the necessary characteristics of his class well enough marked to make him a high-class horse, should make a good "general purpose horse."

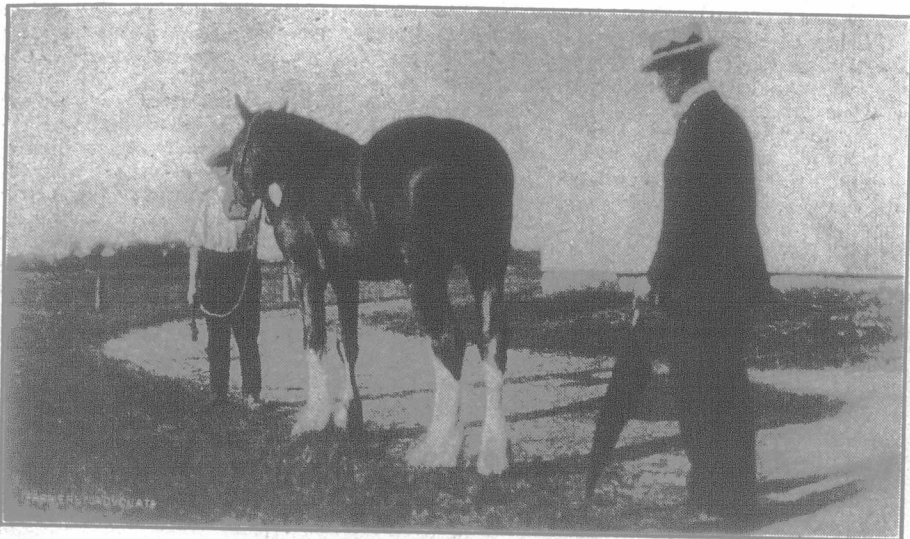
Horse Ring Decisions Depend on Conformation and Action.



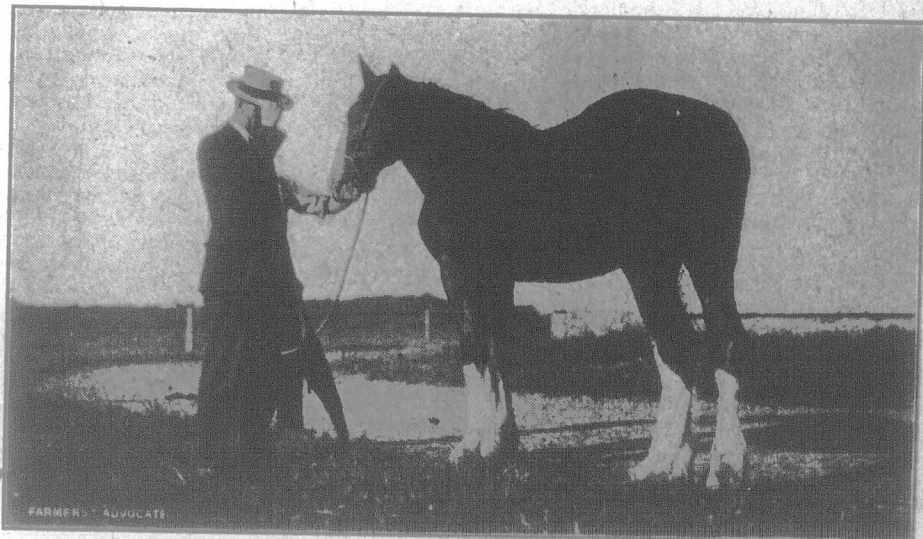
A Side View First.
Character, lines and general conformation.



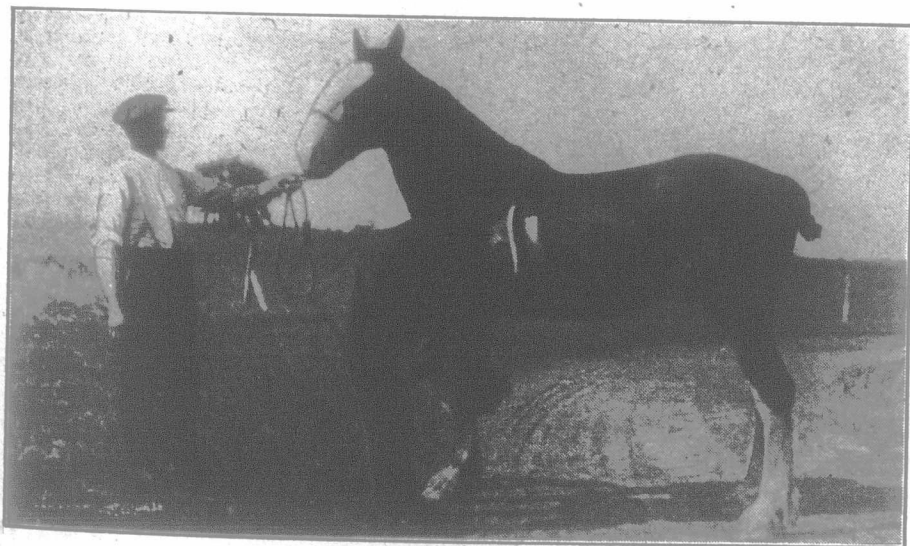
Sizing up the Horse From in Front.
Head, shoulder, musculing, bone.



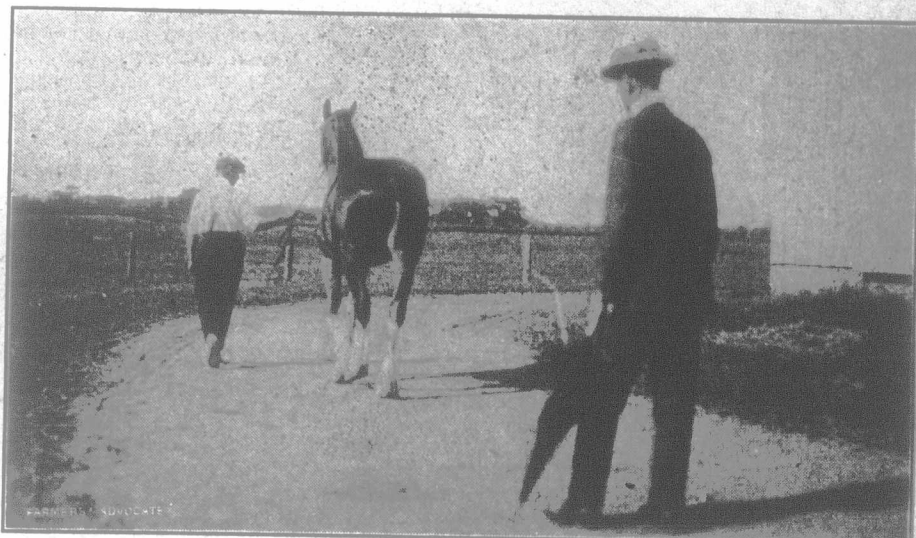
Rear View.
Croup, thigh musculing, hocks, bone, feather and pastern.



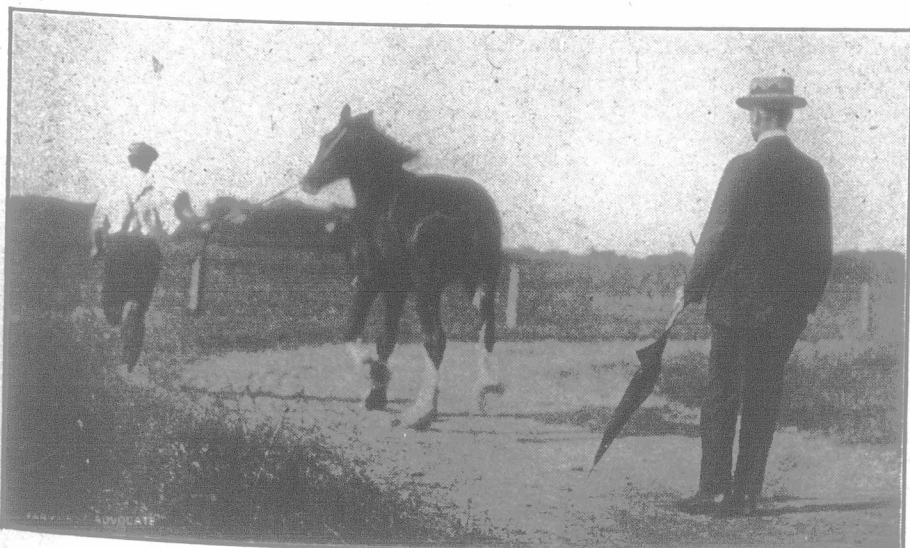
Hocks From in Front.
A view of the hind legs from this angle is essential.



Examining a Foot.
Size and quality of foot is important.



Going Away at the Walk.
Watch action away and toward at the walk.



Going Away at the Trot.
Straightness of action and width between hocks to be noticed.



Trotting Toward the Judge.
Rolling, paddling and throwing feet to be looked for.

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LIVE STOCK.

Judging Beef Cattle.

BY PROF. G. E. DAY.

In judging beef cattle it makes a good deal of difference whether we are judging a class of animals which are finished for market purposes, or whether we are judging a class of animals intended for breeding purposes. It is probably safe to say that in judging fat cattle, the hand is rather more important than the eye, but in judging breeding animals, the eye is more important than the hand, though in either class both the hand and the eye must be used intelligently.

In a finished market animal, we are especially concerned as to whether the animal is well developed in those regions from which we obtain the best quality of meat, and whether it carries a deep covering of first-class quality meat over the valuable portions of the carcass. To ascertain the amount and quality of flesh the hand must be used.

In the matter of handling, the fingers should be passed along the back with sufficient firmness of pressure to ascertain whether the back is well covered, and when the loin is reached, special attention should be given to this region as it is one of the most valuable cuts in the carcass. The loin should be full and wide and deeply covered with firm flesh. Passing from the back and loin, the hand should be used upon the ribs to ascertain the depth, firmness and smoothness of covering in this region. Very often in animals which are in very high condition, a large roll of fat will be found in the region of the back rib. When this development is excessive, it is very objectionable because fat of this kind is not edible. Passing from the rib, it is a good plan to test the fullness and thickness of the flank, which is an indication of the general finish of the animal. The hand should also be passed over the shoulder blade, and the shoulder point, to make sure that these parts are nicely covered.

The quality of the skin and hair are fairly sure indications of the general quality of the flesh, and the skin in the region of the back rib should be lifted between the fingers. The skin should be fairly thick but very mellow and soft. A harsh, stiff hide indicates lack of quality in the grain and the meat, but a mellow, soft-handling hide denotes good quality of flesh. The hair should be soft, and the more nearly the hair approaches to fur in quality, the better indication it is of an animal that is a good thriver, and also an animal which will give good quality of meat.

Having satisfied ourselves regarding the handling qualities of the animal, it is in order to take a general view to ascertain the relative development of various parts. For instance, an animal which is extremely heavy in the fore quarter, but runs shallow and light as you approach the hind quarter, is very objectionable, for the reason that the fore quarter represents cheaper meat than that found in connection with the hind quarter. Similarly, a view from the rear should show a wide spread of rib, a wide loin, and a great width over the rump and down the rear of the hind quarter.

If the animal is narrow and peaked in conformation towards the rear, it shows a very objectionable conformation, because it is over this region that we look for the more valuable meat.

A point which is always worth noticing is the width over the top of the shoulder. An animal that is narrow and sharp over the shoulder top will furnish a carcass which is deficient in lean meat. It is true that a rough shoulder is not desired, but width over the top of the shoulder, with corresponding width back of the shoulder and along the top of the animal, is very desirable. Generally speaking, we like to see a straight top line and a reasonably straight under line, because straightness of under line is associated with good depth towards the rear of the animal, which is important for reasons already stated.

To sum up, we may say that we want a deep, broad body, with the various parts blending smoothly into one another and with reasonably straight lines above and below. Coupled with this, we must have good depth of fleshing over all parts, and this flesh should be of reasonable firmness and uniformly put on. The ideal beef animal shows an entire lack of angularity and is smooth and packed with meat over all parts of its carcass. The skin should be soft and elastic, and the hair fine and abundant.

When it comes to judging breeding animals, it is also important that they should possess the qualities assigned to the market animal, but in addition to these points we must consider type, style and character, without which a breeding animal may be entirely undesirable, no matter how perfect it may be from a purely butcher's standpoint.

The type of the animal is influenced more or less by the breed to which it belongs, but all beef animals should conform, within reasonable limits, to the general conformation already described in connection with the butcher's animal; that is to say, the form should be deep, broad, and smooth with straight top line and under line, and the body should be set upon short legs. These peculiarities of conformation are characteristic of what we may call the typical beef animal and hence come under the heading of type.

The head of a butcher's bullock is not particularly important after the animal is finished for market, but in the case of the breeding animal, we attach a great deal of importance to the head. A head which shows a short face, a wide forehead, a full, bright eye, and a wide muzzle is a pretty sure indication of a vigorous

animal and an animal which will make good use of its feed.

In males, the head, of course, should be masculine in character without being coarse, and in females it should have an effeminate appearance without showing weakness or delicacy. It is the head which is the main factor in giving what we call character to the animal, and the carriage of the head combined with the general carriage of the body gives the animal what we know as style. Style and character are closely related and overlap one another more or less, but both are important in the breeding animal of any kind.

Quality in the breeding animal is indicated in the same way as it is in the butcher's animal already described.

It is important to use the hands to determine the quality and fleshing of the animal, but as indicated already, the eye is especially important in judging breeding animals. If the judge keeps too close to the animals he is judging he cannot form a correct opinion of their symmetry, or the balancing of various parts. He should take time to examine them from the side, the front and the rear, standing well back, especially from the side view, so as to form a correct opinion of the general type and character of the animal.

A side view gives him the top and bottom lines, the depth of body, length of leg, the balance of the hind and fore quarters, the development of the neck, the carriage of the head, and the blending of one part into another.

From the front view he gets the countenance of the animal, the conformation of the head, the straightness of the forelegs and the width and depth of the chest.

From the rear view he gets the spread of rib, width of loin, the width over top and back of the hind quarter, and the smoothness with which the shoulder blends into the rib as well as the general smoothness over the hooks, tail-head and top of the quarter in general.

Having taken all these points into consideration and having used his hands intelligently to help his eyes, but not to take the place of his eyes, a judge should have a reasonably clear conception of the merits of the animal he has under examination.

Frequently we find a difference of opinion among good judges, as to the relative merits of two or more animals. This is only to be expected and will always exist so long as show-yards are in existence. From what has been said it will be seen that there are many things to be taken into consideration, and one judge may attach slightly more importance to some one point than another judge, and in cases of close decisions it would be strange indeed if variations in opinion did not occur.

In treating this subject a number of details have been omitted, and all that has been attempted is to present some of the leading considerations which enter into the problem of judging beef animals. It requires a sound practical knowledge regarding the breed under consideration, a sound judgment which is able to balance one class of facts against another, and a mind which is thoroughly independent and free from prejudice, to qualify a man to make a satisfactory judge of beef animals, or any other class of stock.

Buying Cattle Feeds for Winter Use.

The most successful cattle feeders purchase and feed profitably a reasonable supply of mill feeds and concentrates. What feeds to select and when to purchase are at present most difficult problems. The man who buys meals in small amounts as needed and buys the meal cheapest per hundredweight is a poor business man and does not appreciate the real values of feeds. The feeder who has rich and succulent farm-grown roughages need purchase and feed less grains and meals and the meals purchased need be of a less concentrated nature. The intelligent cattle feeder always raises on his farm the best possible quality of feeds and makes his purchases of grain and meals to balance the rations properly.

There are but two correct methods of choosing meals when purchasing. Which method to follow depends altogether on the quantity, quality, and variety of the farm-grown roughages. Purchases should be made on the basis of the protein contained in a digestible form or the total digestible nutrients (protein plus starches plus fat x 2 1/4).

For example, red clover hay contains 152 pounds digestible protein and 1,018 pounds total digestible nutrients per ton, timothy hay has only 60 pounds digestible protein and 970 pounds total digestible nutrients per ton, corn silage has 22 pounds digestible protein and 354 pounds total digestible nutrients per ton, and mangels or swedes about half as much of each. Clover, or better, alfalfa hay supplies the protein of a ration in about the correct proportion while timothy hay must be supplemented with a rich protein meal. Again, corn silage, although bulky, supplies the cheapest total nutrients of any feed but requires a protein meal to balance it. Silage made from green clover, oats, or oats, peas and vetches, is worth almost as much as good corn silage.

The same relationship exists between all the meals which are purchased for the feeding of stock. The farmer who has grass hay (such as timothy) and corn silage, must buy meals on the basis of cheapness of protein. At the present prices these in order of cheapness are:—Cottonseed meal, dried distillers' grains, linseed oil meal, gluten feed, wheat bran, shorts, middlings, and oats. If, on the other hand, he has alfalfa or clover hay, corn or other good silage and roots he need purchase less meal and should select on the basis of cheapness of total digestible nutrients. At present prices

these in order are:—Dried distillers' grains, beet pulp, wheat middlings and bran, gluten feed, cottonseed meal, linseed oil meal, and oats.

Every farmer can in a few minutes with present feed prices and the analysis of digestible nutrients, verify the above and select his purchases accordingly.

Certainly if he wishes to get the most value for his money he must follow these four rules:—

1. Buy the highest quality feeds, not those containing dirt, filler and indigestible fibre.
2. Buy feeds containing the desirable elements in the cheapest form.

3. Buy co-operatively, in car-load lots if possible, and thus save extra freight charges and commissions.

4. Buy when the markets are lowest, usually in the summer and fall, and save the storage, handling charges, and, usually, extra profits made by the millers and dealers.—Experimental Farms Note.

Cattle Situation in France.

G. Moussu, in Volume 28 of the "Revue d'Hygiene et de police Sanitaire 1916," in commenting on the frozen meat supply for the civil population of France writes:

"Britain was the first European nation to make use of meats preserved by refrigeration. She has established supply stations along her navigation routes at Gibraltar, Port Said, Hong Kong, etc., so that her ships can be re-vicealed wherever they may happen to be. Britain's successful prosecution of the Transvaal campaign was due in part to the abundance of frozen meat supplied to the army, and Russia's failure in the Russo-Japanese war was due in part to a faulty organization which did not provide for proper rations.

"Because of lack of a reserve supply of storage meat it was necessary, during the first year of the war, from August, 1914, to July, 1915, to kill large numbers of cattle, both large and small. After a year of war, the number of cattle in France had diminished by more than 2 1/2 million adult head, out of a total effective number of 15 million (young and adult). In 1915 we were poorer in cattle than in 1862. The military administration is now in a position to put a certain amount of frozen meat before the civil population; not for the purpose of totally supplanting the fresh meat, but to correct the present high price of fresh meat."

The ravages of war on the cattle herds of France during the first year were enormous, according to Moussu, a depletion of 2,500,000 head. The condition, the writer intimates, was due to unpreparedness in storage meats. Since that time, however, the intimation is conveyed that the serious condition has been checked by the use of frozen meats for the military and civil population.

Training Young Cattle.

Jim Powell, a veteran beef cattle herdsman of the United States, writes as follows in "The Story of the Herefords" by Saunders, regarding the training of cattle:

"In training young cattle much patience and time are required. In the first place tie them up in their stalls and handle them there. Then commence leading them out. Have a buggy whip in your hand and make them stand when you want them too. A light cut on the nose will do this. Try to make them stand with their front feet well under them, not spread apart, and then they will show a good, level back. Make them stand at ease. Do not try to do too much at once, as the calf may become sulky. They should have plenty of exercise."

It requires an expert to fit an animal properly for exhibition, and almost as much wisdom and skill to let it down again after the circuit has been covered. History of the cattle ring bears records of many losses through inefficiency in this regard after the animals were carried successfully through a whole season. Do not be too hasty in making changes. Make every alteration in the diet gradually and with care.

Frequently a herdsman neglects the feet of his charges, although he may be painstaking in other ways. This negligence often means a lower place in the showing, for the candidate cannot walk sprightly. Pare the feet when necessary and keep them from getting too long and irregular. Some make a practice of washing out the feet with soap and warm water.

Three high-priced Hereford bulls have been imported into Western Canada during the last few months. They are good individuals and carry the most fashionable blood in their veins. The "white face" is well liked in the West, and should become more popular through the use of the best bulls produced in America.

Ontario cattlemen should be able to fill the feed lots this winter and make good gains. Grain and roughage are plentiful, a striking contrast to the existing conditions last year.

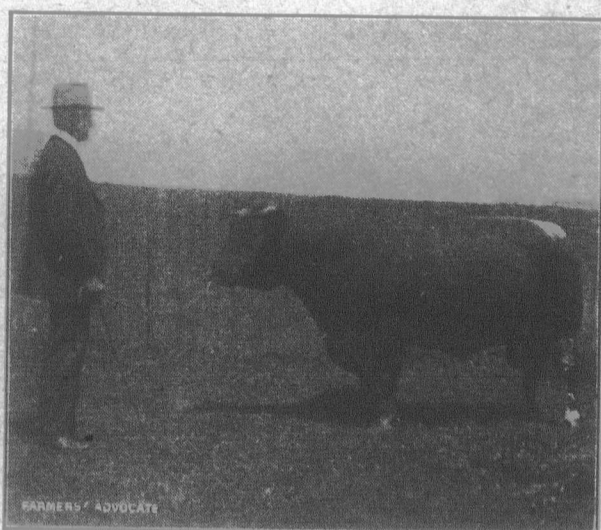
Train the cattle to be exhibited at the Fall Fair. Unruly youngsters do not show up well when they have to be wrestled with all the time.

The herd header should be kept in a good, thrifty condition. It will make a difference in the calf crop.

Type, Conformation and Quality the Salients in Beef Cattle Judging.



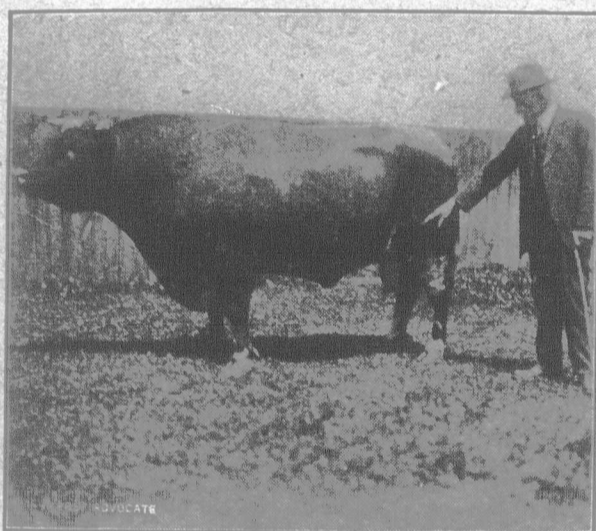
Broadside View.
Note straightness of lines and general conformation.



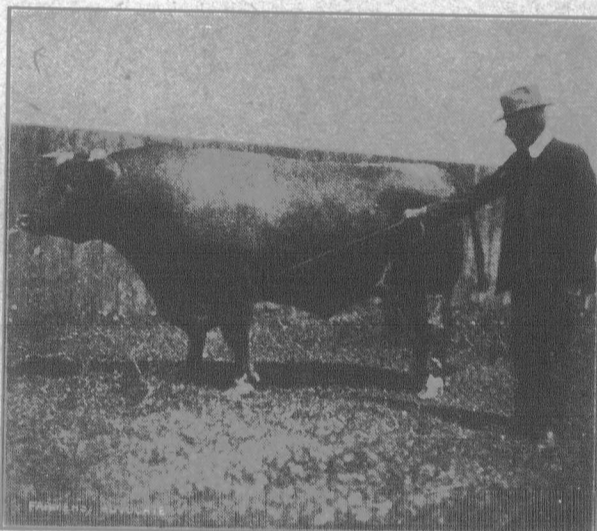
Front View.
Study the head for type and character and the body for width.



Rear View.
Look for straightness of top line, width and conformation of quarters.



Viewing the Rear Flank.
The rear flank should be well let down.



Looking for Depth of Chest.
Depth and thickness of chest indicate constitution.



Looking for Breadth of Chest.
Breadth of chest indicates strength of constitution and fleshing qualities.



Feeling the Shoulder.
The shoulder should be broad, smooth and well fleshed.



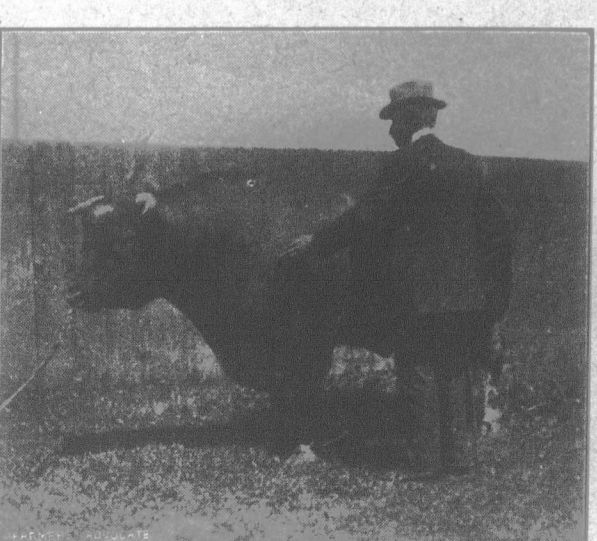
Feeling the Back.
The back should be straight, wide and well fleshed.



Thickness of Loin.
A wide deeply fleshed loin is desirable.



Indicating a Well-Arched Rib.
The rib should be well sprung, giving a broad back.



Feeling the Shoulder Point.
The shoulder point should be well covered with flesh.



Feeling the Skin.
A loose, pliable skin denotes good feeding qualities.

Judging Sheep.

To the inexperienced, sheep judging offers more difficulty than does the placing of any other class of live stock. This is no doubt due to the fact that only comparatively little of the work can be done with the eye, a maximum amount of handling being necessary to a proper estimation of the individuals before the judge. For this reason and because sheep have not been as popular on the average farm as they should have been, young men in this country and many of the older stockmen are none too familiar with the points considered by the sheep judge.

We have been accustomed to reading for many years of the sheep as the golden-fleeced or golden-hoofed, and with present prices for wool, mutton, and breeding stock, the truthfulness of this appellation is beginning to be realized, and more people are beginning to be interested in the establishment of a small flock on their farms. Accordingly it is appropriate in this issue of "The Farmer's Advocate" to, along with other articles discussing the judging of other types of live stock, consider the sheep in detail.

In judging sheep as with all other classes of stock, it is necessary to have a definite system in order that speed and accuracy of judgment may be facilitated. As illustrated on the accompanying page, general conformation must be considered. Size up the sheep from a broadside view, then from the head and rear. This will give an idea of general conformation, type and quality, but the judge must rely particularly upon his hands to discover defects which may be cleverly covered up by the shepherd in trimming his sheep ready for the show. A skillful trimmer can make an ordinary sheep appear a very uniform block by using the wool to smooth out the deficiencies.

Following out a general system the sheep should be stood in line and gone over from the head backwards. From in front examine the head, note the covering of wool; some breeds requiring much more than others. Note the teeth by pressing down the under lip. This is necessary to make sure that older sheep are not shown in the younger classes. See that the head is a good shape and that the eyes are full and bright. In polled breeds be careful to note the presence or absence of horns or any appearance thereof; such stubs are not permissible in breeding stock. With the hand placed as illustrated on the next page, note the neck vein and how the neck blends with the shoulder. This should be full and smooth. Then follow down the back with the hand flat, noting the strength of back and covering of flesh. Always keep the hand flat and fingers close together. Watch the attendant to see that he is not holding up a weak-backed sheep by pressing the animal's front with his knee, or in some cases by use of the hand placed underneath the body. Then with hands flat and placed one on either side of the shoulder, get the width of shoulder and how the spring of rib fills out the depression just behind the shoulder. Carry the hands back in the same position and get the width and depth of loin and follow back to the tail head to estimate how the sheep's width is carried over the hind quarters.

The leg of mutton is very important in both breeding and fat classes. To estimate its size and fullness, grasp the hind leg, as shown in the illustration, fore and aft. This will give a very good idea of the amount of valuable meat carried in this part, and the trained hand can accurately estimate the value of the different entries in the class.

It is important too that the sheep show a strong and vigorous constitution. This is denoted by width in front and by depth of chest, which can be estimated by placing one hand on the floor of the chest and the other at the top of the shoulder, as illustrated. Some judges look for depth of chest immediately after observing the fullness of neck vein before they pass down the back. This is a very good idea, and when followed out the judge cleans up all points while passing from the front to the rear of the sheep.

When conformation and quality have been carefully sized up, the wool is still to be considered. A sheep should be well covered, but the judge must understand the breed to be able to properly estimate this point; for instance, a Shropshire must be wool from his nose to his toes, in order to be considered sufficiently well covered, while a Leicester of good type is bare of face and of legs below the knee or hock joint. But all breeds should be closely covered with wool over the body and defects are frequently noted underneath. Many otherwise good sheep are bare of wool on the floor of the chest and belly. Feeling underneath, of course, will discover this point. Then the quality and denseness of fleece must be considered, and to get this it is necessary that it be opened in at least two places—over the shoulder and over the hind quarter, as shown in the illustration on the opposite page. Note the lustre, crimp and denseness of fleece. To get denseness good judges simply grasp a large handful of wool at the side of the body. Also, when the fleece is opened, examine the skin, which should be a bright pink and free from black or dark spots. This is an important point in breeding stock.

Now you have been pretty well over the sheep. In close decisions line them up, one behind the other. Stand them side by side and get a further idea of their general conformation, lines, constitution and uniformity. In fat sheep, and occasionally in over-fitted breeding

stock, it is well to look for a condition called "slipping." This can be discovered by placing the arms around the sheep and with the hands pull up just behind the front legs. Occasionally sheep are found with the fat "slipped" from above down to the fore flank. These will be found bare on top. Of course, in judging sheep in butchers' classes the wool does not count as it would in breeding classes.

We must always remember that quality counts, and this may be estimated by the bone, the skin and the hair on legs and face. The sheep should have sufficient bone but it should be of fine quality, and the skin, as previously mentioned, should be clear, pink in color, and smooth, and the hair on legs and face fine in quality. In both breeding and fat classes it is well to remember the most valuable cuts from the butcher's standpoint. No good sheepman has any use for a sheep that is bare over the loin and light in the hind quarters, as these are the places from which the most valuable meat is taken. With these the breeder wants a strong top, a good spring of rib, and a deep chest denoting constitution and feeding qualities, and the whole covered with a dense, lustrous fleece. The covering is important because very often bare-bellied sheep and those with poor fleeces are not as hardy as those protected by a uniformly thick covering of wool. Watch the crimp in the wool; see that it is regular, indicating a sound fibre.

All these points are mentioned not with a view to making a number of young men into expert judges, but with the idea that those starting in sheep breeding on a small scale on the farm, may with some measure of intelligence select a few breeding ewes and a stock ram according to the points of the sheep, as emphasized by good breeders and expert judges. It is important in buying the foundation of a flock that these various points be considered because what the judge in the showing looks for and places a premium upon is exactly identical with the object of the breeders the country over. Select sheep which show strong, vigorous constitutions. Get size in so far as it is compatible with quality. Pay attention to uniformity and type. Be particular in the selection of well-covered sheep. Mate them with the highest type of sire available and watch carefully the results, which cannot but be satisfactory, and as years go by the beginner will gradually become more familiar with the points outlined here. It requires a trained hand and a practiced eye to properly place a class of sheep at a large exhibition, and also to properly select and breed on the farms back home.

Extra Fall Feeding for the Flock.

The average sheep breeder with an ordinary flock on the farm which he is operating on the mixed farming basis, would do well to take a leaf out of the books of the larger sheep breeders and exhibitors at this season of the year. If you visit those farms which carry large flocks, you will find that the breeding ewes, lambs and rams are all being fed a little extra at this season. Extra fall feeding is deemed essential by those who have had years of experience in the sheep-breeding business. At weaning time the lambs should be placed on the most luxuriant feed on the farm. Second-growth clover, rape, or some such crop, should be provided for them. Those who have spent considerable time around the sheep barns at the exhibitions have noticed that the show flocks consume considerable cabbage. Where a field of rape or clover is not available, it is good practice to have cabbage to throw over to the lambs, and this is a crop which will produce an abundance of sheep feed per acre. Keep the lambs growing and, for ram lambs for sale and others which are to be made particularly choice and in some cases even for the entire flock, some oats may be profitably fed.

The ewe flock is at a season when liberal feeding is essential if a large crop of lambs is to be had next year. Coming through a summer during which she has nursed one or two lusty lambs, the ewe at the early fall is generally in comparatively low condition and her vitality is somewhat weakened. She requires building up before being bred a few weeks or months later. Flushing ewes, as it is known in sheep-breeding sections, simply means liberal feeding between the dates of lamb weaning and of turning the sire with the flock later in the fall. Again, a second crop of clover or a rape field may be used to good advantage, or, if available, the cabbage. Comparatively few of the smaller breeders feed their ewe flocks grain at this season. Generally they depend on pasture, and if a fresh field is available with plenty of shade and water the ewes will usually pick up rapidly after the lambs are weaned. If the flock is large and young ewes are being kept to take the places of the older individuals, it is a good time to cull out the unsatisfactory breeders, those whose mouths and general condition indicate that they have passed their years of greatest usefulness, and the few weedy, off-type or weak-constituted matrons which may have found their way into the flock. The outlook is for a keen demand for wool, lamb and mutton in 1918, and every possible preparation should be made to ensure a large lamb crop next spring. The first step is to have the ewes gaining in flesh and in good condition at the time they are bred this fall. A field of second-crop clover may yield larger returns by being utilized as feed for ewes than by being cut for hay in this year of abundance of hay and clover.

A Good Time to Start a Flock.

There is no better season in which to buy a few breeding ewes as a foundation of a new flock than the early fall, and it is time now that those who contemplate making a start in sheep breeding were looking around that a suitable selection from the breeding flocks may be made before they are too severely culled. There is an insistent demand for good ewes, not only of pure breeding but also the best type of grades, and there are indications that there will not be enough breeding stock to go around. Consequently, it would be well to get in touch with breeders early, before they have sold their flocks down too closely.

In buying it is generally good practice to select young ewes, preferably yearlings or two-year-olds, but under present circumstances one may be able, in many cases, to get a few older ewes of choice breeding which will be good for a few years and which will leave their new owners, if bred to a properly selected ram, some excellent young stock to take their places when they are turned off to the butchers. After a ewe is six years old her usefulness is generally considered to be questionable. However, we have seen many of the best breeders in the flock kept to a considerably greater age with profit to their owners. It depends upon the record of the ewe, whether or not it will pay to keep her, and if the buyer can get in touch with some reliable breeder who has more sheep than he can handle, he may be able to get at a reasonable price a few of the older ewes which have proven themselves regular breeders of choice stock. However, taken on the whole we would prefer to buy younger sheep. If it is decided to purchase older ewes pay particular attention to their mouths. See that their teeth are in reasonably good condition in order that the ewe may feed herself properly and keep her constitution built up for the breeding strain which she is called upon to bear.

In selecting for the foundation of a flock we would advise buying a few good individuals rather than a large number mediocre in quality. The beginner does not require a large flock; in fact, it is safer for him to select from half a dozen to a dozen choice ewes and grow up with the business than to purchase too many at a high price before he is familiar with the new business.

Now is the time to buy, but be careful in selection. Get sheep of strong constitution, well covered and of the best type of the breed they represent. If you know nothing about types and breeds, we would advise obtaining the services of a recognized breeder whose honesty and integrity are above question to aid in selecting a foundation flock. It is important that a good start be made. Once the foundation is properly laid the new breeder is half way along the road to success.

The Best Ram is the Cheapest.

Good stock rams are never any too plentiful, and the increased interest in sheep will make the demand keener this fall than for some time. The sire, it is said, is half the herd; he is also half the flock, and in many cases the best half, as he is in others the worst, depending upon his quality and breeding value. It is time now that all those who have not secured a suitable flock header were making their selection. The fall fairs are just commencing, and a number of our best breeders will be found exhibiting at these shows. They will have on exhibition a number of their choicest rams and ram lambs. It would be well to get in touch with them, and if they have not in the pens at the fair what you are looking for, no doubt they will be able to fill the order from the home flock quite satisfactorily, provided orders are placed early. In buying a ram it must always be remembered that the best is generally the cheapest and will, in the long run, leave more actual profit in the pocket of the purchaser than will the cheaper and less valuable animal. The influence of the sire is exerted on the entire lamb crop, and an outstanding individual may do more real good in building up a flock than years of selection in the female end. Of course, best results will be obtained where rigid selection is practiced with both males and females, but the quickest way to success is to purchase the best sire available. In many cases a ram which would cost \$75 to \$100 or more would be a far better investment than one which could be bought for \$20 or \$25 or less.

As a general thing it does not pay to use a lamb, but we would rather purchase an outstanding individual as a lamb than risk a flock with a scrub yearling or two year-old. With a very small flock a strong, vigorous, well-bred, top-notch lamb would do, but it is generally preferable, provided equal quality and breeding can be procured, to purchase a yearling or two-year-old, and in every case the latter should be used on a large flock. Very often an older ram, which has done service in some breeder's flock, who has no more use for him, may be purchased at a reasonable price and, provided he is active, he is a safe investment.

When you get the new sire home do not pamper him, but feed him well. Keep him in good thriving condition and give him the run of a paddock where he will get plenty of exercise until time to turn him in with the ewes. If possible put a ram lamb or two from your own flock in with him for company, and when the breeding season arrives a few oats, some cabbage, or a few roots will aid in keeping him in good condition. Some turn the ram with the ewes at night, keeping him in during the day; others keep him in nights and out during the day, and still others allow him to run with the flock continually. Where a valuable sheep is being used on a large flock, it is generally preferable to keep him in at least a part of the time and to give him extra feed.

A Trained Hand and Practised Eye Necessary in Sheep Judging.



A Side View.
Note general outline and conformation



Front View.
Note chest development, character and head covering.



Rear View
Look for width and position of legs.



Feeling Neck Vein.
Neck should blend well with shoulder.



Feeling the Back.
With hand flat get strength and fleshing.



Leg of Mutton.
Grasp the leg front and rear as shown.



Width of Shoulder.
With hands at either side estimate width.



Width of Loin.
Get the breadth and thickness of loin



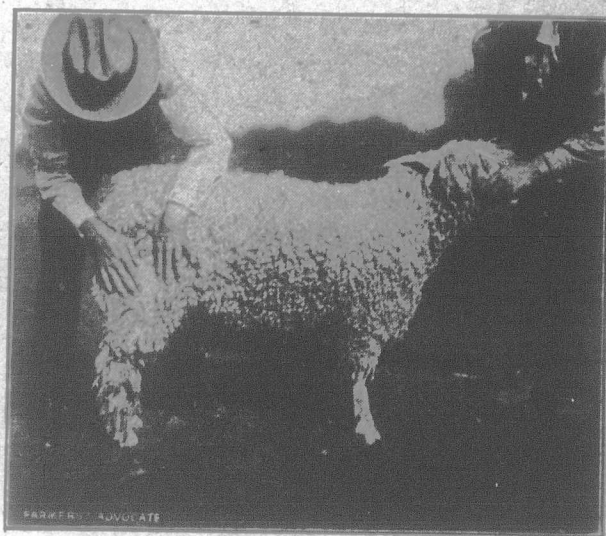
Width of Hind Quarters.
See that width is carried well back.



Depth of Chest.
With hand above and below, estimate.



Quality of Fleece.
Open fleece over shoulder.



Quality of Fleece.
Open fleece over the hind quarter.

Deciding Factors in Swine Judging.

When judging swine in this country one must ever bear in mind the great essential, namely, that the industry and the future thereof depend upon the production of the bacon hog. It is not a question of breeds. Type is the all-important and cardinal factor in the development of the swine industry in Canada. We must produce the Wiltshire side in order to maintain our trade connections and an outlet for our product. Type is the first consideration, and the animal possessing this qualification must give evidence of sufficient constitution, vigor and prepotency to insure its transmission to the offspring. Type then, and ability to transmit it, are the most important requirements of breeding stock. The judge, in making his decisions, should keep these points steadfast in his mind.

As a general thing there are no hidden defects about swine. Any undesirable feature of the hog's conformation, type or quality is usually visible to the naked eye and can be detected by observation. Very little handling is necessary. A weak back in a sheep can be remedied, so to speak, with the shears; tricks in showing the horse are legion; depressions or holes in the flesh of a fattened cattle beast can be inflated, while a slack udder can be distended with milk so as to show the cow off to advantage. Provided the swine are entered in their proper classes according to age, the judge is able to see them as they are, and with an experienced eye can make the awards expeditiously.

Bearing in mind the fact that type and conformation must be backed up by constitution, vigor and all those characteristics which insure a reasonable length of life as well as prolificacy, we can study the hog in detail and come to some understanding as to the relative importance of each point and its relation to the ideal animal in its entirety. The illustrations on the opposite page will help to make the text of this article clear to all.

A judge can work more speedily if he adopts some system. There are three vantage points from which the animal must be viewed, namely, front, broadside and rear. As the hog is observed from these three different positions none of the important parts need escape the sight and consideration. The head of the bacon hog must be wide between the ears and eyes, and the face should not be too long, but this varies with the different breeds. For instance, the length between the eyes and nose of a Tamworth would not be tolerated in a Berkshire, and vice versa, so it is necessary to have an understanding of breed as well as bacon type, but the requirements of the former should not be allowed in any way to interfere with the ideals demanded by the market. The jowl should be trim. A fat, flabby jowl is altogether out of place on a bacon hog. The neck, while it must be in proper proportion to the rest of the body, need not be too long; it should be fairly short, neat, and blend evenly with the head and shoulder. The two most common defects of the shoulder are thickness, and a looseness or openness on top. This part of the animal must be taken into consideration along with the side and ham or quarters. Assume that a straight-edge is placed against the side of the pig, resting on the shoulder in front and the quarter behind; then, if all parts of the side between the shoulder and ham come out evenly to the straight-edge the conformation is ideal in this respect. The eye is always depended on for making such observations. Thickness of shoulder is a relative term. An aged pig will be much thicker through the shoulder than a young one, but if the point of the shoulder does not stand out much farther than the side at the heart and rear flank, the thickness cannot be considered as a serious defect. In this case it is the consequence of age and development; the proportions must be considered always. A neat shoulder, smooth and well rounded on the top answers the requirement of bacon type. An open shoulder on top is undesirable.

From a side view several important parts must be examined. In the first place the length and depth of the side must be taken into consideration. This part of the porcine anatomy furnishes the "Wiltshire" side upon which the whole industry is based. The side should be long and deep without evidence of carrying too large a percentage of fat. The back should be slightly arched as a guarantee of sufficient strength to undergo a life-time of service in the breeding pens. The pasterns, too, must be straight so the animal stands up well on the toes and has a sprightly, steady walk. A broken-down pastern is indicative of old age, or an unpardonable weakness. Another very important consideration is the constitution or chest development. The breeding hog must show no depression back of the shoulder. The chest should be deep and thick as evidence of vigor, strong constitution, and ability to feed well and turn the rations to good account. A full heart girth leaves no depression behind the shoulder at the back, or farther down the side. Any defect in this region should be viewed with apprehension and the animal weak in this respect penalized in the judging ring. The arched back, the upright pastern, and the strong constitution are qualifications that signify robustness, good feeding qualities, and a life-time of useful as well as profitable service.

The most valuable part of the bacon hog is from the shoulder backward. The side itself is the indicator of type, provided the other parts conform with it, but the ham or quarter ranks next in value and importance. A good length from the shoulder backward is imperative, for in this region lies the sought-for cuts.

While viewing the animal from the side, note the arch of back, previously mentioned, and observe the slope to the tail-head. There should be a gradual slope from the loin down to the tail-head. A flat rump is

objectionable, yet the slope should not be too great. This can be decided with the eye, for there must be a harmonious blending of the parts and uniformity throughout.

The ham which conforms to bacon type is neat, well let down and tapering to the hock. The outside of the ham should be in a straight line with the side and shoulder, making the alignment true along the side. While thick, "beefy" hams are undesirable, the animal should not be "cut up" too far between the quarters. A review of all the requirements herein set forth settles the matter in respect to lines. From a front or rear view the sides will be straight. While a broadside view should reveal a somewhat straight underline, especially in young stock, the back or top line will be arched. The width of the back itself will be governed by the size of the hog. A fair width is necessary in a fully-developed animal, but excessive thickness will tend to carry the pig into the lard or fat-hog class. In every case the width should be even and uniform over the shoulder, back, loin and rump.

The character of the bone and hair are indicators of quality in the porcine family. Taking age into consideration, silkiness of hair and fine, yet sufficient bone, are indicative of the sought-after quality in bacon hogs. Curly hair or swirls usually are not found in conjunction with the best quality. The skin, too, is often noted in this regard, but so much depends on the treatment given it that too much stress should not be laid on that point. Quality in the hog is revealed in the conformation and general make-up of the animal; it is the first thing to impress itself upon the mind of an expert judge, yet it is the most difficult thing to describe. Quality, or the lack of same, stands out all over the hog, but if asked to point it out even the best judges would have a task. As in all other classes of live stock, the male must possess masculinity, and the female, femininity; these characteristics along with the vigor, constitution and general strength of the animal insure the transmission to the progeny of the qualifications required in the bacon hog.

When judging butcher classes, some allowance can be made for defects that will not injure the hog soon going to the block. Type, size, finish and quality are the deciding factors. In breeding classes we must have all these things along with constitution and strength of body, as a guarantee of prepotency and usefulness.

Starting in Swine.

Some beginners in all phases of the live stock industry think they should put off the initial step until they can make it a long one and thus make a bigger showing. This is particularly true in respect to pure-breeds. Every beginner finds he has something to learn and the wisdom will be acquired with less expense when the first step is a cautious one. Prof. G. E. Day's advice to beginners in the swine industry is sound and based on the experiences of many breeders. It reads as follows: "One of the most common mistakes for a beginner to make is to be too ambitious, and to make his start on too large a scale. As a result, he is liable to meet with some rather serious losses and to become discouraged. Perhaps the safest way to start is to buy one or two young sows safely in pig to a good boar. It costs more money to start this way than to buy newly-weaned pigs, but this disadvantage is more than compensated by the fact that a person is able to make a much more intelligent selection by buying a more fully developed animal than he could make if he bought his sow very young. In addition to this advantage, he has a shorter time to wait for returns. He is also saved the necessity of immediately buying a boar, if there is not a good one in the near neighborhood, and need not tie up capital in a boar until he has had some money returns from his venture, provided, of course, that he cares to sell some of his young pigs at an early age."

Hogs Getting Scarcer.

The effect of the heavy liquidation of all kinds of swine and breeding stock in particular, which took place last fall is beginning to be felt seriously throughout this country, particularly in those parts of Ontario where grain crops were a failure last year. A shortage of feed led at once to a thinning of the herds, and swine were unloaded quickly because their ration must consist chiefly of grain, while hay and roughage would maintain cattle in some condition if not in the best. If a consistent effort had been made to retain the sows for breeding purposes, litters would now be maturing and ready to be finished for market. Those in touch with the trade say the hogs are not in the country to be had, and receipts at the leading stock yards seem to substantiate this statement. For the week ending July 26 there were 4,274 hogs on the Union Stock Yards market, Toronto. For the week ending August 2 there were 3,700, but for the corresponding week in 1916 there were 8,954. From January 1, 1917 to August 9, something over 30,000 fewer hogs were marketed at Montreal, Toronto and Winnipeg than during the corresponding period of 1916.

It is natural to expect that hog runs would not be heavy until after some threshing had been done, but when meat of all kinds is so urgently needed and prices are high to the producer, and higher to the consumer it seems too bad that a greater effort was not made last fall to conserve the breeding stock at any rate. Mill-feeds and grains soared high in price, yet the profits from hog feeding through the past winter and summer months would compare favorably with any period on record. It was only a matter of doing bigger business

than usual. Hogs at \$18 to \$18.25, fed and watered, would warrant the purchase of feed at any price it has yet reached, and they have sold for one dollar above, that figure.

Another complaint frequently heard is that farmers do not grow enough pasture crops for the hogs, which would increase the number that could be carried as well as the thrift of the herd. Hog raising is as profitable as any kind of live-stock farming and will remunerate anyone for the care and energy expended on it. It still seems that hogs are a safe thing to produce, inasmuch as the end of the war is not in sight and meats will have such an extensive outlet for some time to come.

Should Hogs Wallow?

There seems to be considerable difference of opinion amongst swine breeders as to whether hogs should be allowed to frequent a mud wallow. Many are opposed to it on the grounds that contagion is spread in this way, and the conditions in such a case would be worse, of course, if the wallow be fed by a running stream of water. Under such circumstances disease could be carried either to a herd or from it to another. The author of "Swine in America" publishes a letter in regard to this subject from N. H. Gentry, one of the most successful breeders in the United States. Mr. Gentry writes as follows: "Creating a breed of hogs that do not like to wallow is going outside of nature. People take mud baths for rheumatism. You may have a clean brook, but the hogs won't like it. I built boxes for them to bathe in, and five minutes after the hogs got out they would be dry. Earth is a good disinfectant. I do not believe in a filthy place, but I never saw a hog that did not like a mudhole, and when he gets in it he does not want water but wants to wallow in the mud. It cleans the scurf from his skin. If before taking him to an exhibition you let a hog wallow in mud, you secure a skin finish you cannot obtain in any other way. Nothing is more soothing than mud. I tried to believe for years that it was not for the hog's good, but I tell you that depriving a hog of this mud bath is against nature. Nature is a pretty risky thing either to play or fight with. I do not believe all stiff hogs have rheumatism. I had an imported sow that had never eaten corn in her life and she foundered and to her death was stiff, as plain a case of foundering as I ever saw. I do not believe in fighting with nature. What is better than to have the hogs go to a shady place and wallow, without too much water? I believe in mud baths, but I keep my hogs away from manure heaps, and always have shade over the wallow."

Glean the Fields With Hogs.

After every harvest there is more or less waste left on the fields that might well be taken up by swine and converted into meat. Heads and kernels of grain, which in some cases amount to no inconsiderable quantity, are scattered throughout the stubble. This constitutes an absolute loss. A bunch of shotes, housed in a portable cabin, would glean the field of all grain and consume much of the grass and weeds that grow about the fences and corners. Unless the field is seeded it would not be necessary in every case to ring them in order to prevent the land being too much disturbed. Where the grain was lodged this idea of gleaning the field applies with additional force, inasmuch as the loss is usually greater. During the latter part of September and up to the middle of October the corn will be harvested, after which there will be loose cobs lying about the stubble no matter how careful the men may be in picking up the bits. Last of all the roots will be lifted and the hogs will complete the job. In carrying out this system of rotating the shotes from field to field, an immense saving will be made. Cattle, of course, would perform the same function in the corn field but they would not be nearly so efficient as the swine in gleaning the grain stubble. The one important drawback to this system is the matter of fencing. However, after the grain harvest there are only the corn and root fields to protect from serious damage. If there is feed in the field, fair sized shotes will not give a great deal of trouble, provided holes in the fences are plugged and the wire fences are tight at the ground. A stake here and there will keep a wire fence down which ordinarily the hog would get his nose under and lift. Gleaning should be practiced more than it is.

Roots and plenty of exercise go a long way in winter towards maintaining healthy herds of swine. Summer conditions should be duplicated so far as possible.

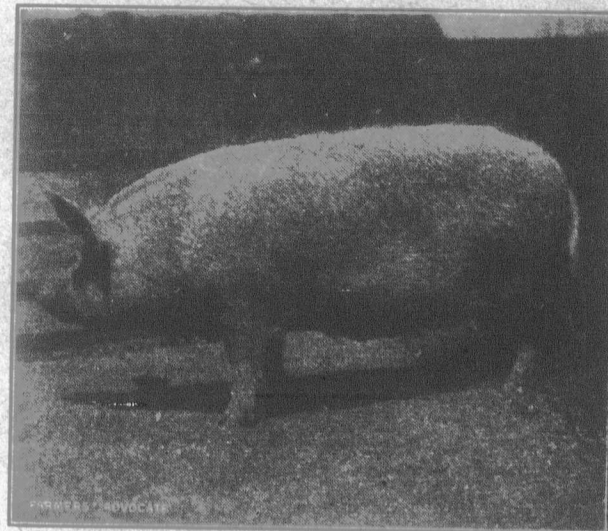
Sows which have raised large litters frequently give birth to small ones if bred too soon after farrowing or after the pigs are weaned. The dam should be allowed a brief rest, when possible, in order to regain vitality lost through her arduous duties.

When selecting a young sow for breeding purposes, choose from a large litter. The young ones in a small litter might present a better appearance while still on the dam, owing to a less severe strain on the mother, but sows from large litters are more likely to be prolific.

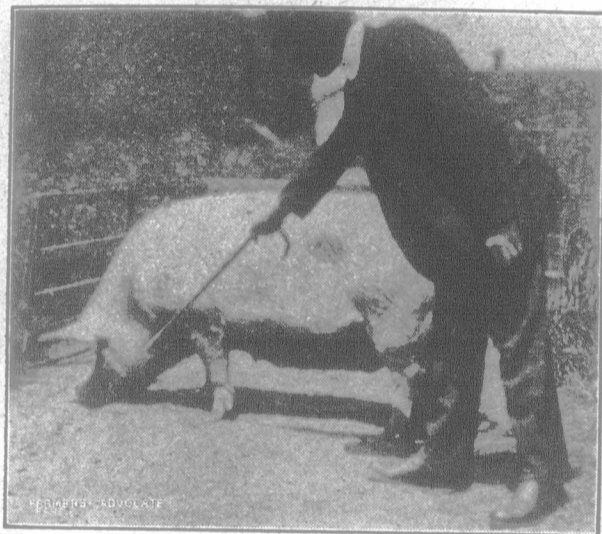
When purchasing a boar to be the future herd-header, it is wise to visit some breeder and inspect the quality of his entire herd. One can never tell just how a very young pig will develop so it would be well to pay a little more money for an older pig which gives assurance of proper conformation, type and quality.

The Chief Points of the Bacon Hog.

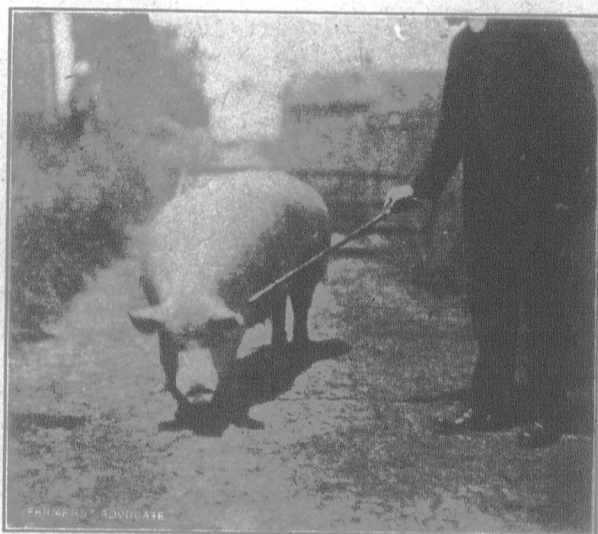
When making decisions in any swine ring in Canada the judge must bear one salient point in mind: Conditions at home and abroad, in war and peace, render it imperative that this country produce the bacon hog. We cannot compete with the corn-belt States in the production of the lard or fat hog, neither can we expect a remunerative share of the bacon trade in Britain if we attempt, with a mediocre output, to meet the Irishman or the Dane, who for years have been perfecting their product. In consequence of the volume of Danish bacon supplied to England during the war being greatly decreased and the Canadian article having gained the ascendancy, it behooves us at this time to put forth an extra effort to cement the relationship, now existing, through an adequate supply of good quality. Wiltshire sides can be manufactured only from hogs of the bacon type, and unless we produce these we can never expect to have our product rated high on the British market; this, every judge must bear in mind. Furthermore, the supply sent forward must be ample to meet the demand or, after the war, the industrious Dane will reclaim his pre-war connections and the opportunity of a century will be lost to Canada. At present large quantities of killed product from the United States are being used by Canadian packing houses in order to meet war contracts, but the quality of this is not such as to justify the belief that upon it we may depend to supply the demand for first-class bacon under normal conditions. The British taste for bacon is fastidious; England must be our market, therefore, the future of the swine industry in this country depends upon the producer for volume of supply, and the packing houses for quality inferior to none. It can be done.



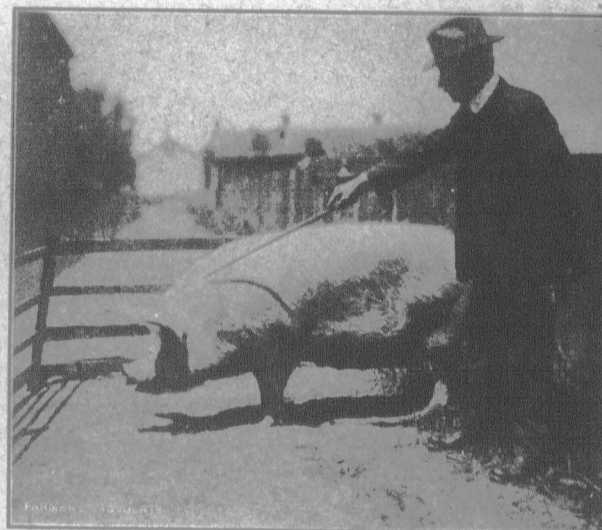
General View.
Note conformation, lines and pasterns.



Jowl.
Bacon type requires a trim jowl.



Shoulder.
A smooth shoulder is essential.



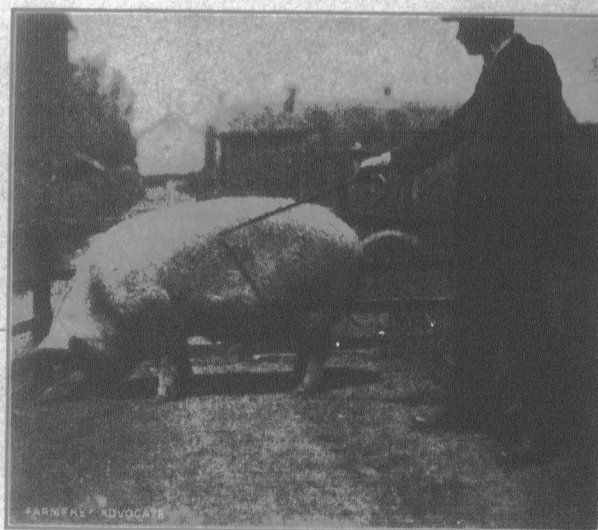
Neck.
Should be neat and not too long.



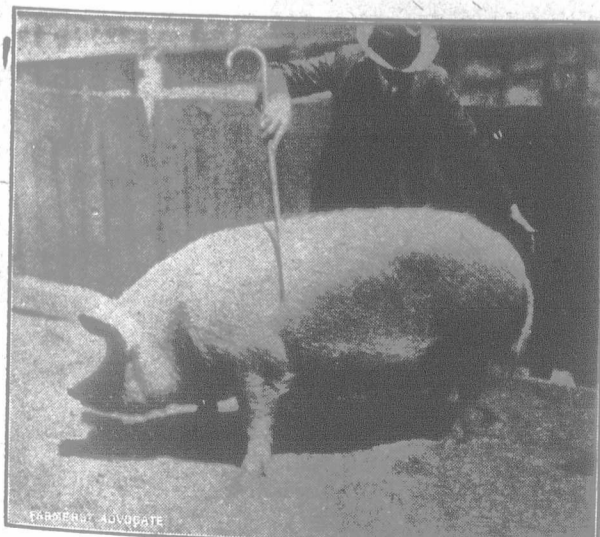
Length in Front.
As illustrated, study fore length.



Chest Development.
Good constitution is a prime necessity.



Side.
The side should be deep and long.



Length of Side and Quarter.
From shoulder back is most valuable.



Width of Back.
Width should be uniform over shoulder, back, loin and quarter.



Ham.
Ham should be well carried down but neat and trim.

THE DAIRY.

Judging Dairy Cattle.

BY PROF. H. BARTON.

The basis of dairy cattle judging is the fact that in development for production and reproduction, animal form and appearance have undergone corresponding modifications. That power of production and tendency to reproduce manifest themselves externally admits of no doubt. To measure the relationship between manifestations and performance is the task of the judge. To do this in a general way is simple enough, but to do it specifically in individual cases may not always be possible. The important fact to note, however, is that a positive relationship between indications and results does maintain.

From these indications standards have been established. In them are included considerations of milk production; reproduction, breed peculiarities, etc. The would-be judge must first be familiar with what these standards exact. He must next be able to employ them as a means of measurement. This means he must be able to recognize representations of the standard or parts of it when exhibited before him. The third and often most important qualification is the ability to total his measurements in forming an estimate of an animal and to compare them when a decision between two or more animals must be made.

The various standards call attention to many details, all of which can be associated and grouped as parts of one or more important features of dairy animals. Not infrequently the amateur goes astray because of his tendency to consider minor indications in an isolated way instead of in conjunction with many others closely related. The breeder if he errs is likely to do so because of prejudice against, or partiality for some particular feature which has proved impressive in his experience. The animal with all its features including as they do innumerable details, must be considered as a whole, and particularly with due regard for blend, balance, and symmetry.

The essentials of a utility dairy animal may be briefly indicated as follows:

Size.—Size may be mentioned first, not because it ranks first in importance but because it is one of the first things to be observed. It is a relative factor from a breed standpoint and should be considered as such. An undersized Holstein might pass as a representative Ayrshire, the same could be said of the Ayrshire and Jersey. There are at least three important reasons why size should be carefully noted: Breed standards are specific in regard to it; cows of at least medium size include the majority of the best producers; the tendency on the average is for size to diminish. Good size is, therefore, important. In estimating size, general scale comes first, but with it should be included substance and general type. In other words, it must be a desirable kind of size, a good proportion of height, length, depth and thickness.

Strength.—The general appearance of the animal is indicative of strength and vigor or a lack of it. The more important individual indications of it are the heart girth, head, back, quarters and hide. Mistakes are often made in rating the heart girth, condition and animal structure sometimes being misleading. The most vital part is what may be called the floor of the chest. If this is of good width and well filled in the fore flank just back of the lower part of the shoulder a certain amount of slackness or even falling away above need not be regarded as a very serious consideration, especially if there are other indications of health and strength apparent. Any undue narrowness or cramped appearance in the middle or bottom of the chest cavity is a positive indication of weakness, but all degrees of it can be found.

The type of head, indicative of strength in a dairy animal, is one of breadth, moderate length, width in the nose, with a well-defined expansion to form the muzzle, and a prominent eye of good size, bright but mild. The head that is very long and narrow or pointed should be avoided.

A strong back is one of moderate length from the shoulder to the hook bone, well braced with ribs of considerable spring and extending into a wide, strongly-carried loin. A common defect in dairy cattle is undue length of back or middle. Judges in their ambition to get size and capacity very often overlook the danger of getting an animal out of proportion in this respect. The result is that a distinct weakness, associated with little capacity sometimes characterizes winning animals.

An animal may be strong in other parts and weak in the hind quarters. From the standpoint of strength above it is important to select well-built quarters. The strong quarter is one that is straight on top to the drop of the tail and carrying its width well through.

The hide with its covering is always a register of condition and vitality. An unduly thin hide lacking pliability, or a very harsh, tight hide is invariably associated with other evidences of weakness in some form.

The energy expended by a good dairy cow is an enormous amount. No other animal is called upon to do anything like as much work, not infrequently under conditions that tend to jeopardize her health, hence the importance of a robust constitution.

Capacity.—The amount of feed necessary for maintenance is about the same for all dairy cows of similar weight. The amount they are able to consume varies greatly. The difference between the two is available for making milk and fat. It is obvious, therefore, that the cow with big capacity is the one that can show the biggest return over and above the cost of keeping her.

The general size or scale has something to do with capacity, but in proportion to size the cow's middle,

together with the indications of feeding vigor, are its true measure. Strength in the head as above described, particularly the size and character of muzzle, is splendid indication. Roominess throughout is highly desirable. Most important of all is the depth and spread of barrel. This depends upon the length and spring of rib. Rarely is a good cow shallow or even tidy in middle.

Quality.—This is a general term applied to the texture or fibre of the cow throughout. It may range from extremely fine to extremely coarse. Texture must be considered in conjunction with other things, size especially. It is an established fact that quality is a strong indication of dairy usefulness. In the extreme it may characterize lack of size and weakness. It is observed in the general appearance of an animal, the head, neck, bone, hide, hair and general finish. All of these should be noted. Hide and hair are of special significance and should be handled, the best place being on each side of the animal over the last ribs and about half way up the side. In handling one should get the impression that there is an abundance of hide, which, together with the hair, seems pliable and almost velvet in character.

Milk Organs.—The udder, teats, milk veins and milk wells come under this head.

The essentials of a good udder are capacity, strength and milk-making texture. To obtain the maximum of these it must be large, therefore long, wide and deep, well balanced and glandular rather than of an unduly muscular nature, but firmly attached.

Udders that are not capacious, that are split up below into quarters, that are unequal in quarters, that do not extend well forward and well up behind, that are loosely attached, are objectionable. The texture of the udder is ascertained by feeling the general character of it, noting its size and shape, together with the quality of skin covering it and in the attachment behind.

The bottom of the udder should appear fairly level and have a teat of good size but not extremely large near the centre of each quarter. The milk veins and milk wells, as they are called, vary a great deal. Of the two the milk wells indication is the more reliable. Milk vein development, either in length, size or branching, or all of them, is a good indication. The wells are found in the form of distinct holes through the wall of the abdomen near the ends of the veins. An abundance of opening either in the form of one or more large wells or a number of smaller ones on either side is reliable evidence of production as is also restricted opening unfavorable evidence. It must always be remembered that the milk organs proper should be estimated in accordance with age, development and, if possible, treatment of the cow.

Character.—Character is usually considered in reference to breed. There is, however, such a thing as character, apart from breeding peculiarities in dairy cattle. Sex expression and the appearance of what may almost be called intelligence is apparent in all really good dairy animals.

Temperament.—Closely allied to strength and the ability to supply energy for a given purpose is the temperament of an animal. The nervous energy which a dairy cow possesses makes it possible for her to undergo severe work and to devote herself to manufacturing milk rather than flesh. The ability and tendency to do this is manifested in the expression of the head and eye, the temper, and the general form. A nervous eye, an irritable temper or a phlegmatic appearance indicate weakness in this particular. A general angularity of form, which nevertheless may be smooth in finish and carry moderate fleshing, is the result and indication of correct temperament for dairy work.

Breed.—The standard for general utility is one and the same thing for all breeds of dairy cattle. The breed standards include certain ear marks which serve as the guide posts of the breed and within which a breeder must steer his course if he is to have true representatives, capable of propagating their kind. Jersey character is very striking and attractive, but apart from color a Jersey head on a Holstein is a disqualification and spells disaster. Color is one of the closely limiting factors in this connection, but other things such as horns size, udder, teats, etc., clearly show breed distinctions which must be recognized.

Type.—Everything mentioned above as part of the standard is exemplified in what is called type. Some interpretations of type take it to apply to only general outline and character of form. The correct type must include all that is best, from either standpoint. One frequently hears criticism of a judge for breaking type or for not following type. Many variations are presented in the average show-ring and, while a judge should certainly be expected to look for and emphasize the established type with all that includes, it will often be impossible for him to array animals as grades of type when viewed from a general appearance standpoint. Out of a number it is usually possible to select some that approach an all around well-balanced type, but the average judge will do well if he finds all his winning animals of this order. From there down many variations will appear, and the final rating of an animal may put it where it looks like a conflict of type with one given precedence over it and the one to come behind it.

Method in Judging.—There is perhaps no best procedure in going about the judging of a ring of animals. It is worth while, however, to adopt some simple system and follow it. Special mention may be made of certain practices. The illustrations show a number of important positions. One of the first to take is that of viewing the general appearance of one or more animals, at the same time comparing them in this respect they may be viewed from the rear and front, particular note being taken of the heads. Usually fairly clear-cut impressions will be gained while making this preliminary examination, which will facilitate making comparison in

matters of more detail. After the animals have been gone over in detail, as shown by the various positions illustrated, it is advisable to see them moving one behind the other in a circle. Specific information in regard to each individual having been obtained, the animals on the move will invariably reveal something more, freedom and style in movement are in themselves important, and in this examination the judge has his best opportunity to make his final analysis.

Give the Cow a Chance.

Travellers frequently remark that there are greater manifestations of thrift and prosperity in dairy sections of the country than in beef-raising districts. The crops are larger, the barns are bigger, the houses more comfortable, the schools more enticing to the children, the roads better built and maintained; in fact, conditions in general indicate that the dairymen are "making good." There are reasons for this. The dairy cow gets more dollars out of a ton of hay, an acre of roots or corn, or a bushel of grain, for her owner than does the beef animal. She is recognized as a profitable transformer of farm crops into cash. The feed given a good cow will return considerably more food or energy value for human consumption than the same feed given to a beef steer. Then the monthly milk or cream cheque furnishes working capital so that cash can be paid for necessary articles. It puts more money into regular circulation than if returns came in a lump sum at one season of the year. Many dairymen purchase concentrates to augment the home-grown roughages, and to balance the ration. This tends to increase the fertility of the soil so that there is a gradual increase in the productiveness of the farm.

The cow has been the means of lifting many mortgages and of bringing general prosperity to the communities where she has been given an opportunity to show what she can do. True, there is a good deal of work connected with dairying, but what business does succeed without hard work? Some people have the audacity to say that cows have been instrumental in driving boys off the farms. That may be true, but if so the cows were of inferior quality. No one can blame a boy for becoming disgusted and quitting the job if compelled to sit down twice every day, three hundred and sixty-five days in the year, to cows which do not give over three or four thousand pounds of milk in a year. Anyone can see that that they are working for nothing and boarding themselves, as it takes the revenue from more than that amount of milk to feed the cow. Get one or two ten, twelve or fifteen-thousand-pound cows, a few good heifer calves, and a type bull from high-producing ancestors, and see if the boy considers dairying as slavery. Oh, no, he sees money in the business then and he bends every effort, if given any encouragement, to further improve the milk and fat yield and to fit animals for the shows. Give the boy an interest in the business, be it ever so small, and watch him shoulder the heavy end of the work. He will be right on to the job. Feeding standards and balanced rations will be studied and cows will be fed concentrates according to production, rather than all fed alike regardless of milk and fat yield. This will further increase the profits. No other animal on the farm is so economical a producer of human food as the good dairy cow. Give her a chance and even though she requires attention twice every day, she pays you regularly for your work and you do not have to wait six months or a year to collect the value of your crops, as twelve hours after the feed is placed before this efficient machine you draw a product which has a cash value and gives you more than market price for the feed, depending on the quality of the animal. A good cow leaves prosperity in her wake.

Stable Feeding Versus Pasturing Cows.

In order to compare the cost of producing milk when the cows are turned on pasture during the summer and stabled during the entire year, considerable work has been done at the Ontario Agricultural College. Nine cows were fed in the stable exclusively and were only turned outdoors to exercise in a moderate sized yard. Nine other cows, selected with the view of obtaining those which were practically the same average number of days in milk, the same number of days between calvings, and as nearly as possible giving the same quality of milk, were pastured during part of the summer. The days in milk and the number of days between calvings were identical in the two groups. The average percentage of fat for the cows fed in the stable was 3.76 per cent., and for the cows on pasture 3.78 per cent. Thus it will be seen that the two groups were very evenly matched. Accurate accounts were kept of the cost of feed and pasture. At the time, bran was purchased at \$25 per ton, oil meal \$36 per ton; brewers' grains \$25 per ton, cotton-seed meal \$30 per ton; oats 35 to 40 cents per bushel, alfalfa hay \$14 to \$17 per ton, clover hay \$10 to \$12 per ton, silage \$3.34 per ton, mangels \$2.50 per ton, pasture in 1915, \$1.50 to \$1.87 per month, and 1916 \$2.00 per month. At the present time these prices look rather low, but at the time the following records were made these were the prevailing prices. The nine cows fed in the stable cost \$119.04 for feed; those on pasture, \$86.23. The former averaged 14,048 pounds of milk and 528 pounds of fat, or they returned \$1.72 for every dollar's worth of feed consumed. The cows on pasture averaged 12,361 pounds of milk and 468 pounds of fat, but on account of the lower cost of feed they returned \$2.10 for every dollar's worth of feed consumed. So far as profit is concerned the advantage is in favor of cows on pasture during summer, although stable-feeding no doubt is more favorable to the making of large milk records.

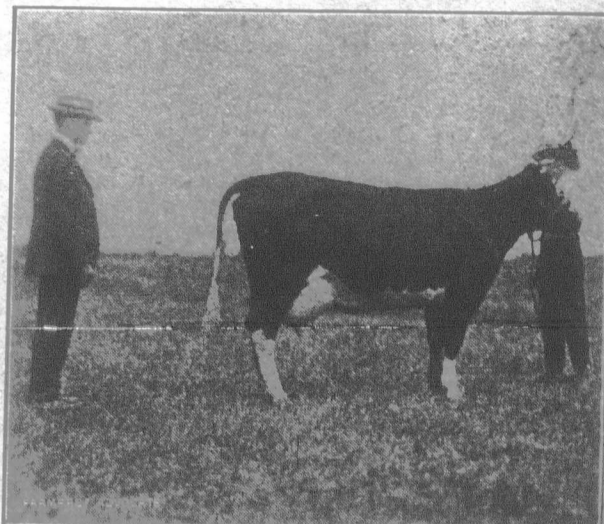
Looking for Conformation, Capacity, Condition and Production in Dairy Cows.



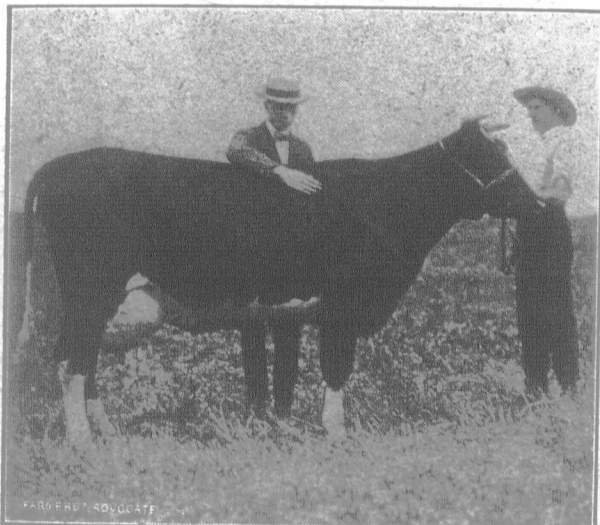
Broadside View.
Shows general appearance, size, depth and straightness of lines.



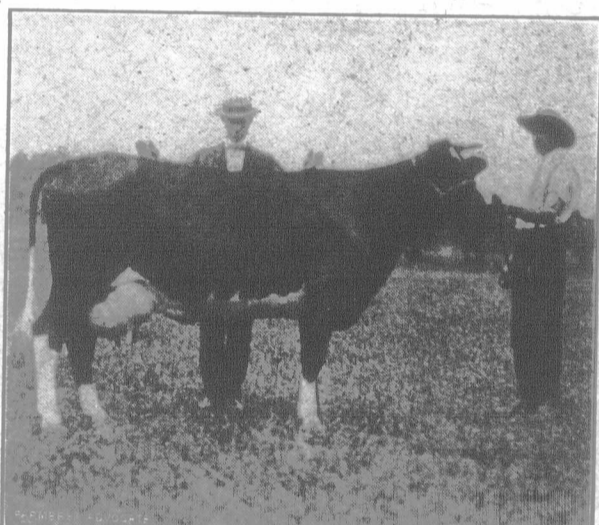
Front View.
Character is denoted by the head.



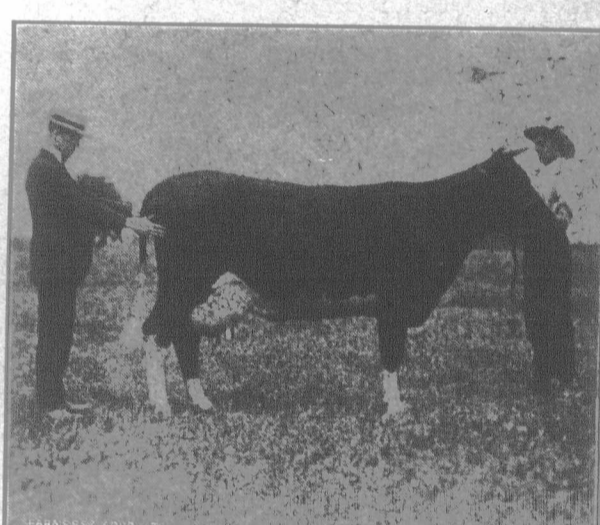
Rear View.
Width and length of quarter are important.



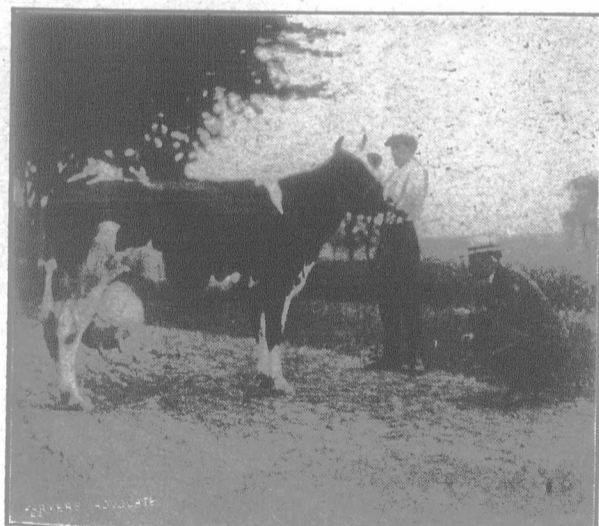
Smoothness of Shoulder.
Ribs should be well arched to give capacity.



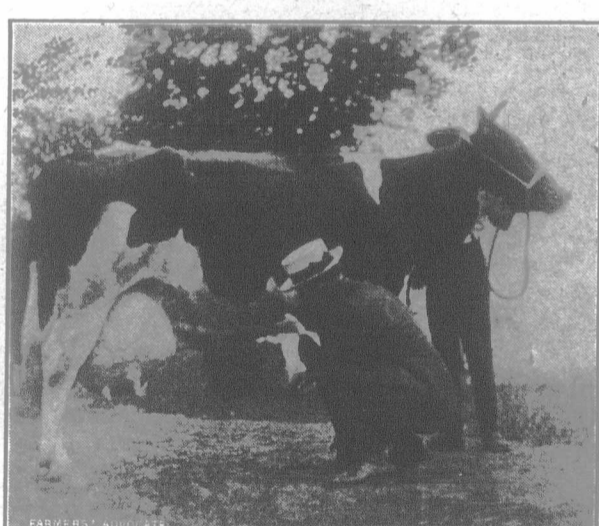
Length of Back.
Medium length from shoulder to hook bones is desirable.



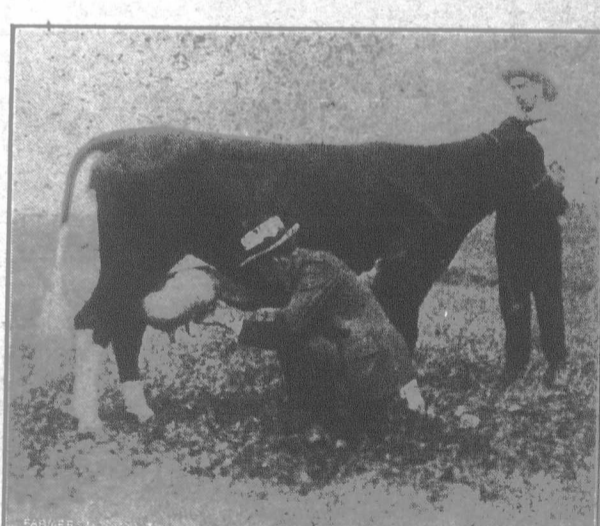
Width of Hind Quarters.
Pin bones should be wide apart but quarters not too beefy.



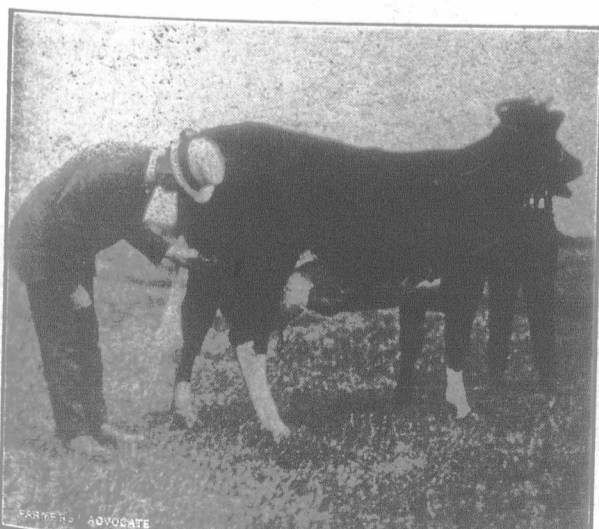
Front View of Udder and Veins.
A well-balanced udder with long milk veins is sought for.



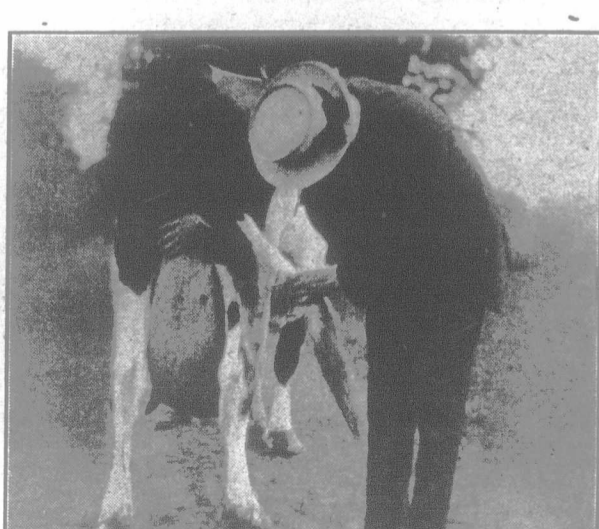
Feeling for Milk Wells.
Veins should extend well forward and end in wells.



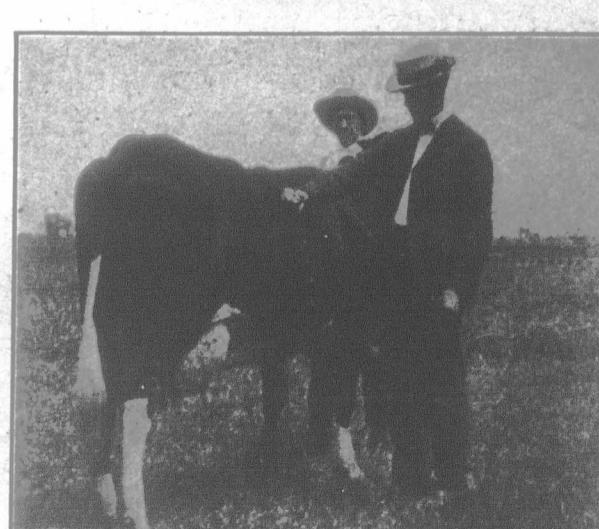
Close Examination of Udder.
Deficient quarters or blind teats are objectionable.



Noting Quality of Udder.
Skin should be loose.



Rear Attachment of Udder.
Udder should extend well up between thin hams.



Condition is Denoted by the Hide.
Pliable skin and silky hair are indications of a thrifty animal.

THE FARM.

Work For The Food Controller.

EDITOR "THE FARMER'S ADVOCATE":

I have just read with much interest the policy which Lord Rhondda, British Food Controller, proposes to follow to regulate food prices and to eliminate profiteering. The adoption of this policy should prove both an effective and satisfactory war measure for producer and consumer, and will put a stop to the exploitations of many speculators who have made victims of both consumer and producer. The taking over of flour mills seems a wise and much needed reform, and their being worked to the account of the Government should be a boon to everyone. Wheat will be bought at a fair price which will encourage farmers to produce in larger quantities and at the same time flour will be sold to the bakers at such a cost they can supply bread to the consumers at a reasonable price. Could the Food Controller of Canada do better than copy the policy of Lord Rhondda, especially in the matter of having the Government of Canada take over the control of flour mills? The time is drawing near for the harvesting and threshing of wheat. Last year was a hard one for most farmers, and in many sections the present one is none too bright. As a result many farmers are forced to sell their grain as soon as threshed, often to meet some outstanding debt—possibly for so-called shorts, at \$40 per ton, composed chiefly of bran, straw and weed seeds into which the smut was blown. Is our Government, now in session, going to stand by and see the busy millers set the price of new wheat at a comparatively low figure and then raise the price of flour as soon as they have the bulk of the wheat in their elevators? If our Government wishes to encourage the farmer let it put an end to profiteering on the part of the millers and guarantee the farmer a fair price for his wheat this year and next. And you, Mr. Consumer, cease to blame the farmer for the high cost of bread and fall in with the farmer to help him stamp out such gambling in food products. Now is the time for consumer and farmer to speak out on this vitally important problem of food control.

Kent Co., Ont.

KENT FARMER.

Place Responsibility on Hired Man.

EDITOR "THE FARMER'S ADVOCATE":

Reading the issue of "The Farmer's Advocate" of August 2, I noticed an article on "Give the hired help some responsibility" by Sandy Fraser. This hired-help problem with the farmer is a critical one, but I think

if every farmer who takes "The Farmer's Advocate" would read this article and digest it well, and then act on it, they will find the solution or as near to it as is possible to get. I am a hired man myself of 12 years' standing, since I came to Canada. I am a great reader of the articles in "The Farmer's Advocate" which are very interesting and helpful, but this letter is the best advice on this problem that I have ever read, and I feel sure the hired man would take his hat off to Sandy Fraser if the farmers would only take his advice.

AN ENGLISHMAN.

The Mexican Daisy—Look Out for it.

EDITOR "THE FARMER'S ADVOCATE":

By a good diagram in the issue of August 9, see page 1250, Mr. Klugh introduces his readers to a weed that must be new in his locality. He says that it is "the worst weed" in his garden and advises every farmer to keep his eye open for it. This is good advice and I think any observant farmer will be able to recognize it when in flower from Mr. Klugh's drawing of it.

It will be of interest to him and other readers to know that for nearly twenty years it has been 'at home' in and around the city of London, Ont., and although some of the farmers and gardeners here would not call it the worst weed in their place they will all agree that if it stays more than one season it will outlast its welcome,—indeed one correspondent of "The Advocate" this spring, inquiring about its name, declared that he considered it as obnoxious as twitch-grass. If you know it in time you will certainly find it easier to keep it out than to get it out after it has settled down to stay.

The flowers are small, yellow heads not much larger than those shown in the drawing on page 1250 and bear a few, short, white, three-pointed rays. The plant is annual branching, rather easily pulled up, not likely to give much trouble in reasonably clean farming in grain fields or hoe crops. I venture to guess that it was a stranger in Mr. Klugh's garden last year; he was consequently tender towards it, and gave it every opportunity to bear and scatter a good crop of seed—an instance of abused hospitality. Bad as it is I can assure him that it will cost far less perspiration to eradicate it than an equal number of plants of twitch-grass or bind-weed.

Not a person I have ever spoken to had a name for it. No farmer will ever get into the habit of calling it *Galinsoga parviflora hispida*. The word—galinsoga—has no relation to any feature or quality of the plant but was attached to it in compliment to a Spanish queen's physician, so I beg to propose that in talking or writing about it we call it the Mexican daisy. This name is not preoccupied; the weed belongs to the daisy

family and it has come through the United States to this country from its home in Mexico. The trip has taken it quite one hundred years,—indeed it is longer than that since it crossed the Atlantic for I find on looking up its history that Cavanilles, a Spanish botanist, made a picture of it for a book published before the year 1800 and that it was introduced to England in 1796. A variety of it or a closely related species was for a while cultivated as a garden flower under the name of the Golden Galinsoga. A Burbank might make something meritorious of it yet.

Middlesex Co., Ont.

JOHN DEARNES.

East Middlesex Notes.

EDITOR "THE FARMER'S ADVOCATE":

The heavy rains let up just in time to permit of securing the heavy hay crop in good condition. Most of wheat and barley is cut and some of it in the barn. Both appear to be up to the standard in quality and apparently free from rust and smut. Corn and roots are doing well, and there are good prospects of fair to large crops of these. Oats are also doing well and will likely be heavy in both straw and grain. Small fruits are also plentiful, but honey and the large fruits are light. There are a few fine fields of spring wheat, mostly Marquis and the Wild Goose variety, but it is risky to judge this crop before harvesting because of its liability to rust.

Pastures are holding their own fairly well, but those with summer silage or pasture crops have a much better chance to maintain the milk supply than their less fortunate neighbors. Eggs have decreased in quantity somewhat, and the price still keeps up. There appears to be no particular excitement over the farm labor problem in this locality. Although the crops are heavy the farmers seem to be getting them off without much help from the towns. Farmers have always worked as hard as they could anyway, and what couldn't be done was left undone. The price of farm produce is not yet equal to the price of munitions, and until it reaches nearly that point the farmers cannot hope to coax any considerable number of men into the country, because they cannot compete with the munition makers in wages.

A motor trip through two townships, one of which retains the statute labor system while the other has abolished it, convinces us that in one township at least this system has outgrown its usefulness. It was as easy running 30 miles per hour in one as 10 in the other, and gravel is more plentiful in the latter. Ring out the old, ring in the new.

Middlesex Co., Ont.

J. H. BURNS.

Canada's Young Farmers and Future Leaders.

What Have You to Show at the Fair?

Successful men in every line of business started at the bottom and climbed upward. They served their apprenticeship—they took the bitter with the sweet, so that now when they occupy the manager's or president's chair they have a full understanding of every detail of the business. From their own experience they have an idea of what a man can do in a certain time in each department, consequently they know when a man is inefficient, nor do they expect a man to do the impossible. It is the practical men with a knowledge of every phase of the work that become the captains of industry. The kid-glove jobs come after the overall stage has been gone through. As in the cities, so on the farm a man must serve his apprenticeship in order to rise to success. One reason why many farmers today are not advancing as rapidly as they think they should is due to failure to thoroughly learn their trade. They have grown up on the farm and have gone through the daily routine of work without giving much thought to what they were doing. It was largely mechanical. Father or an older brother furnished the brains and they supplied the muscular strength. They did not have the planning of the rotations, the buying and selling of stock, nor the doing of any banking business when they were young. They were given little responsibility. When they launched out for themselves or were thrown on their own resources they were handicapped and found that they could not compete favorably with other farmers and stockmen in farm management, purchase of stock, feed, etc. A man cannot become proficient in farm management in a day any more than a man can learn how to conduct the business connected with a large factory in a day.

Too many boys and young men do not pay attention to details; they are not observant, nor do they practice any initiative, and as a result they are not resourceful in later life. The young man who goes with the stream or lets someone else do his thinking cannot expect to step into prominence in middle life. The foundations of success are laid by the time a man is eighteen years of age. His training previous to that will largely determine the trend of his life. The boy who never takes any interest in live stock is not likely to be a successful live-stock breeder when a man. If he takes more delight in riding the merry-go-round and watching the clown act at the local fair than in exhibiting a peck of oats, a pair of pigeons, or a flock of chickens, he will not be heard from at the larger fairs. If the boy is not allowed to make little deals and to deposit money in

the bank in his own name and to draw it out, he cannot be expected to develop business ability. Many grown men know less about driving a good bargain, making purchases, or dealing at a bank, than do some boys, simply because they did not have it to do. They have never served their apprenticeship in these lines. The parents are oftentimes to blame. They do the managing and never seem to think how their sons will be stranded when responsibility, regarding money matters in particular, falls on their shoulders. How often we see men who do not know the value of things they have to sell or purchase. They want to make a good bargain, but, owing to not having more or less business to transact from the time they were school boys, they sometimes find themselves the victims of more experienced heads. Know the value of the commodity you are dealing with so that you can refuse or accept an offer without any bantering. The writer will not soon forget Willie Aikens, a ten-year-old boy attending a school fair. He had won first prize on a cockerel and then decided to sell it. He asked two dollars and fifty cents for the bird, but was only offered one dollar and a half. "No sir," said Willie, "you pay two dollars and fifty cents or you don't get the bird." That was business.

Another particular instance which came under our notice, of a boy getting good training, was that of Tom Simpson, of Middlesex County, who at eleven years of age made his debut into show-ring circles. It was only a watermelon that he showed and he did not get the red ribbon either, but he found out how the judges scored a melon, and he selected one which won the following year. In the spring of 1913 the Department of Agriculture organized a school fair in the district and distributed certain seeds to be planted and looked after by the boys and girls and the product shown at a fair in the fall. Tom selected oats (a pound of Improved Banner) which he sowed in the garden. The crop was carefully cut when mature and a peck of grain selected for the fair. Not only did Tom win with his grain, but he got first on a sheaf, a melon, a squash, and on apples and vegetables. Since that time Tom is a fair enthusiast. When one is over he plans for the next, which in a large measure accounts for his success in competition with his schoolmates. In 1914 a poultry man offered a cockerel valued at \$5.00 for the best essay on "Barred Plymouth Rocks," and Tom won it. That created an interest in chickens, with the result that a profitable flock has been built up.

At the school fair Tom increased his entries and accordingly won more prizes. In 1916 his winnings amounted to \$5.25. Besides oats, apples and vegetables, a Shetland pony was shown and the red ribbon was

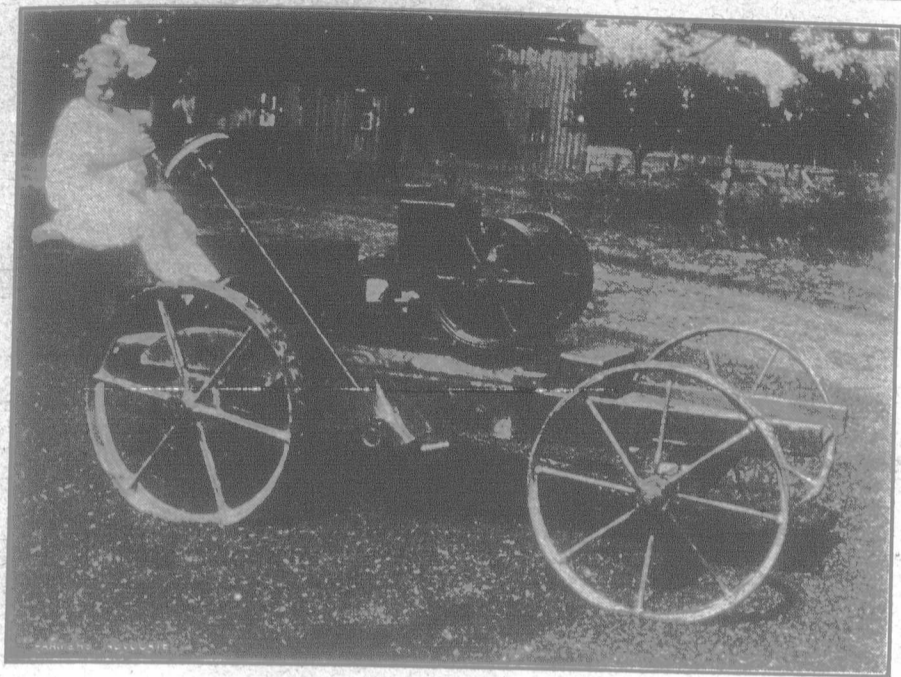
won in a driving contest. There were prizes offered for the best loaf of bread baked by a pupil of the school, and Tom surprised many of the fairer sex by excelling them in the culinary art.

The school fair taught Tom many things, but above all it showed him that it was necessary to exercise care in selecting and preparing entries, also that an exhibitor must have a fair idea of what prize stuff should be like. This paved the way for entering larger show-rings. In November, 1915, a pure-bred Yorkshire sow was purchased by this enterprising boy and he took good care of her. When the township fair was held the following year she and her thrifty litter of twelve were competitors. It was no small task taking these pigs, besides two ponies and a colt to the fair, but Tom was not to be discouraged. He was now in competition with grown-ups. When the judging was finished he held first prize ribbons on his sow and litter, also on young sow and young hog. In horses he also secured top placings. His prizes totalled over \$12.00 in cash, besides a special. It was not a case of Tom's hogs and father's prize money. Tom had the money to use as he deemed best, and this is developing business ability. He has learned how to make out a pedigree and can talk more intelligently on strains of Yorkshires and product of different matings than many of his elders.

The pound of oats received from the Department in 1913 looked like a very small parcel, but under ideal conditions they multiplied and there was considerably more to sow in 1914. The yield was again good and the oats were well cleaned for seed in 1915, when there was enough to sow quite a wide strip across a field, which yielded sufficient to permit Tom to sell 108 bushels for seed in 1916. The one pound increased to over 108 bushels of well-graded seed in three years. This instance shows that a little good seed, well cared for, will soon provide enough seed for the farm besides some to sell.

This young man is very much interested in farming. He was given the opportunity of going to High School last spring, but he preferred to do his "bit" on the farm and has been taking a man's place all summer. We venture to say that he will make his mark in the world. He will continue growing crops and breeding stock that will win at the fairs, and, incidentally, tend to improve the crops and live stock of the district. It is doing the best you can with small things that opens the door to greater opportunities. No young man should be content with things as they are. He should try to improve the quality of crops, stock, etc. It can be done. Reading, thinking and working are three essentials to success in any line of life. Start now to practice them.

Automobiles, Farm Machinery and Farm Motors.



Driving and Steering Gear Attachments.



This View Shows Belt and Pulleys to Connect Engine to the Tractor.

A Homemade Tractor.

I have a one-h.-p. gasoline engine and use it for running light machinery on the farm. The engine was originally placed on two wheels and had to be pulled from place to place, but I now have it mounted on four wheels and it moves itself about, thereby making it an easy matter to get over the ground. The pictures show how it is built. The drive wheels are two old mower wheels with ratchets reversed which serve as a differential. When turning a corner the inside wheel drives while the ratchets on outside wheel slip allowing it to turn faster. Old plough wheels are used in front, and they are guided by means of a wheel, shaft, bevel gears and chain on the same principle as most large tractors. The frame is made of timber 16 inches wide and 8 feet long. The gears are all on one side of frame and are driven by the engine through a belt to pulley on opposite side of frame. A pipe fits over the rear axle and serves as bearings, and also makes it more rigid.

This small tractor is made up of parts of a mower, binder, threshing machine, plough and lawn mower. The outfit is only 3 feet 4 inches wide, weighs about 700 lbs., and can travel from 1 1/2 to 4 miles an hour. When running slow it will climb any hill, pull a one-horse cultivator, draw a loaded farm wagon, pull a five-foot mower, cutting light hay and many other light pulling jobs on the farm. It will travel through any kind of mud, and a six-year-old girl can run it around with ease.

The engine is used for operating washing machine, churn, cream separator, pump, fanning mill, saw, etc., and when mounted as above described is one of the handiest and biggest labor and time-saving machines on the farm. Any farmer who owns a small engine, and is of a mechanical turn of mind and has a little spare time can greatly increase its usefulness by mounting it as a tractor at practically no expense outside of labor and parts of discarded machines.

Lincoln Co., Ont.

C. J. COON.

Driving Lessons.

If you should decide to purchase a car to-morrow, stipulate in the contract that you shall be instructed by a competent man until you feel entirely safe and free from fear. And when you commence to take lessons eliminate everything from your mind that you have heard about an internal combustion engine and its operation. Studiously digest each instruction and do not allow your teacher to advance from one point to another until you are confident and full of assurance.

Now, if you should commence to show someone how to operate a car, let us advise you to proceed along these lines. Take your machine out for a trial spin and make certain that it is in excellent order. Then select the smoothest, loneliest piece of road available, and having put the car in high gear, transfer the student to the position behind the wheel. You can step out on to the running board and stand there or you can climb through the tonneau and around to a place beside the new driver. Until you are absolutely positive that the novice has nerve and judgment enough to steer the automobile do not cloud his brain with any explanations. Keep him steering until he has attained mastery. The next step is the regulation of the gas, and for goodness' sake confine the pupil to the manual advance. Do not tell him anything about the foot accelerator for quite a while. When your student has shown aptitude in straight ahead steering at different speeds, attained through working the throttle on the sector, advise him how he can slow down through the use of the service brake and the clutch. Perhaps you are laughing at the

caution we are urging but you can accept the word of the most experienced men in the motor car business, and they say that ninety per cent. of all accidents happen through ignorance of a car's possibilities. The steering instruction over, begin to illustrate the changing of gears. Choose easy locations at first, but gradually pick out more difficult ones. Get the use of the reverse down to a matter of inches. Many a machine has been dumped into a ditch because the driver did not know the proper amount of gas to use and the right slipping of the clutch. In a pinch a few inches spell the difference between safety and danger. Being satisfied thoroughly with the progress of your student reveal to him the mysteries of the accelerator. Make it plain that he must get the "feel" of it,—must so accustom himself to its powers that even in a crisis he will unconsciously leave it alone or only press it the exact amount required. Practice him again, and again, and once more and yet again in removing his foot hurriedly from the accelerator to the brake. You can readily understand how vital such an operation may often prove to be.

We shall assume now that your pupil knows in a general way how to drive a car, and having listened to your casual conversation is not unfamiliar with the nomenclature of the automobile business. It will be your duty under these circumstances to acquaint him with the mechanical results that follow each movement he makes. In other words transfer the question on driving from the sole field of physical effort to one where the physical and mental are combined. The best chauffeurs are those who can act equally well in an easy or difficult situation because the mind and body are in perfect harmony. We have watched with infinite pleasure the work of trained automobile men. It is a delight to see the care-free, masterful fashion in which they drive. The man who allows his brain to become excited is in as bad a way as the person with a trembling hand.

Let us assume now that you have exhausted your lessons and think your student capable of looking after himself. Before you bid him good-bye and good luck we would suggest that there be a few tests. Tell him to speed up his car to about twenty-five or thirty miles an hour and then just as you reach a corner yell in his ear to turn right or left. If he attempts to obey you will have to take immediate precautions against an accident, but in any event advise him that should such a problem present itself he will find it necessary to immediately decide upon the proper course to pursue. It may be possible to make the turn but caution would indicate the slowing down of the machine on the straight road and backing up. Subsequently the turn can be made in safety. Pick out a steep hill and ask the tyro to hold his car on it without the use of the service or emergency brakes which may go wrong in a pinch. If he is unable to carry out your wishes indicate the systems by which the idea can be carried out through placing the auto in gear. This information cannot be disseminated enough. Hundreds of accidents have occurred through ignorance of it. There are innumerable other tests but these will illustrate them. We want to see motoring become a safe, sane, easy and profitable system of transportation and we can do much to usher in this happy hour by training the newcomers, as we were taught, with maximum care and attention.

AUTO.

The Cost of Power.

The question of cost of operation per day or by the acre, or by the horsepower development, is well worthy of the serious attention of every user of power, yet we find that the man who owns horses knows very little about the actual cost of keeping a horse one day, or how much is chargeable for an acre of plowing, or the total cost of horses by the year. The assumption is too often made that the horse costs nothing because all

of the feed is raised on the farm and none of it needs to be bought. Such an argument is far from the truth. Would not the corn, oats, chop, hay and other forage fed to the horse have a known market value if it could be sold for cash and not fed to the horse? The farmer needs to know just as much about all of the costs that should legitimately be placed against the horse and its work as he should know about the tractor and its work.

To get an understanding of whether it is profitable to use the tractor in place of the horse, reliable data should be had on the cost of both. This should include the money invested, or first cost of each power outfit, the taxes that must be paid yearly, the interest on the investment, the depreciation of the outfit, the feed or fuel bills, and the personal attention needed.

The traction engine has been tested very carefully by a number of interested as well as disinterested parties as to its cost of operation, general depreciation, repairs and attention necessary, and a computation and average of these figures shows that a horsepower of energy can be delivered by the tractor at an average cost of from 1 1/4 to 4 cents an hour, depending upon whether gasoline or kerosene is used for fuel. Stated in terms of an acre of plowed ground, this runs between 45 and 50 cents per acre plowed with kerosene and 80 cents to \$1 with gasoline, on the assumption that 100 days of work are done each year with a tractor. Putting the horse on the same basis of 100 days of work, there is shown a cost of anywhere from 8 to 12 cents an hour for each horsepower of work done.

These figures as regards the horse are those available from 1915, since which time both the cost price of the horse and his feed have increased, while his capacity for work has remained stationary. This means that our horse labor costs us more this year than it did last. The power cost of engines has also been increased, due to the rise in the price of fuel, while the original cost price of the engine has remained almost stationary; in some instances it has been somewhat reduced.

Depreciation means the yearly loss due to wearing out, and is figured on the number of years of economical service. If a horse gives 10 years of work to the farmer, and then is to be replaced by buying another horse, the depreciation is said to be 10 per cent. If he lasts but 8 years of actual work the depreciation is, of course, 12 1/2 per cent. Now, as a matter of fact, any farmer will tell you that a horse is not at its best until he is four years old, and that if he lives to be 14 years of age (not all horses of that age can give full work), it is seen that horse depreciation during his time, from 4 years to 14 is 10 per cent. If for any reason he dies before that age, as many do, the depreciation is much higher. If the horse has 10 years of useful work we must have him earn enough surplus to replace himself at that time. This means a yearly setting aside of 10 per cent. of his original cost.

With an engine this matter of depreciation must be based on the number of years of useful work it returns before a new machine is bought. With horse owners it is customary to figure the depreciation of a horse to cover the entire years of its life. This is not fair, as we must wait 3 1/2 to 4 years to build a horse, when he is giving no adequate return in the form of work. For this reason, figures on depreciation of horses and engines are largely misleading. Yet records in each instance show that horses have given from 6 to 16 years of good service, with the average about 10, and engines have given from 8 to 12 years' service, which also averages 10 years.

With horses costing from \$150 to \$200 each, and each horsepower capacity on traction engines costing between \$80 and \$100, it is easily seen that while the first cost of the tractor is far below that of horses, for equivalent power, the yearly charge against the engine for depreciation is likewise lower in proportion.

W. H. SANDERS, Kansas State College.

POULTRY.

Wet and Dry Mash Feeding of Poultry.

BY M. A. JULL.

The primary consideration of the poultryman is to satisfy the fowl's hunger and beyond the immediate effects of a system of feeding the average poultryman, as a rule, does not concern himself.

In dealing with the effects of any particular system of feeding, due regard must be paid to the principles of breeding. A proper appreciation of these principles is essential to enable the poultryman to determine the specific effects of various rations in poultry feeding. A sound knowledge of poultry foods and feeding is equally important in determining the value of a mash food in the ration.

The subject is indeed a broad one, for there are many factors involved depending upon the class of poultry and the object obtained. The breeder of table poultry aims at flesh production while the egg farmer aims at maximum egg production with maintenance of vigor. Then again other factors must be considered in feeding growing chicks as compared with mature stock. Since, however, we are concerned most with egg production and chiefly with winter egg production at this time of the year, my remarks shall deal more directly with mash feeding of laying stock.

Wet and Dry.

The history of the two methods of mash feeding is rather interesting. It has been only within the last few years, comparatively speaking, that the dry method of feeding mash has been in vogue. Before this, as far as I am aware, all mashes were fed wet, having been moistened with water, skim or sour milk, or extract from boiled meat and bones. In Australia, this method is very prevalent and is given preference to the newer dry-mash method as adopted almost entirely throughout the United States and Canada. I have no reliable data before me concerning the two methods in Great Britain and Europe, though, from reports, I believe the dry-mash method is becoming more popular; still the wet-mash method is mostly employed.

The wet-mash method of feeding fowls consists in preparing a mash of mixed meals, moistened with a liquid and fed in troughs. In winter, particularly in cold countries, the liquid is usually heated to warm the mash. In many cases economy is practiced in adding to the mash cooked vegetables, such as refuse potatoes and turnips. Good judgment, however, should be used in adding vegetables as I have seen one farmer stuff his fowls, in zero weather, with a moist mash of bran and boiled potatoes, and then wondering why they were not laying. This is false economy. At any rate the mash is best prepared in a "crumbly" state when it may rather be called "moist" than "wet". Then mash is usually fed at regular intervals and the troughs should be kept absolutely clean and hung up out of the way when not in use. If any mash is left uneaten within half an hour after feeding it should be taken away as half an hour gives every fowl an opportunity to feed, and if any mash is left it soon becomes dirty and sours in warm weather.

In feeding by the dry-mash method the ground grains are mixed dry and are fed in self-feeding hoppers which are kept before the birds all the time. While the hoppers are open the birds eat at leisure and practically the only essential thing connected with this method is to see that the hoppers are never empty. Feeding by this method is regular and constant; sometimes the hoppers are closed for a part of the day which prevents any possibility of the fowls overeating.

Comparison of the Two Methods.

It is very difficult to compare the two systems of mash feeding for the reason that under certain conditions either method may prove superior, as far as egg pro-

duction is concerned. The comparative value of the two methods depends much upon the method of feeding the whole grain as well as upon housing and other conditions. For the sake of comparison, however, we shall consider all conditions as ideal. I should like to suggest here that if many writers would only consider such conditions, which affect results, that many absurd and misleading reports would not appear in print so frequently. I have in mind a report published by a prominent poultry concern of the country to the effect that a New England poultry keeper induced a pen of twenty-five White Wyandotte pullets to lay fewer eggs in January than in December, simply by giving the birds three more scant handfuls of scratching food morning and evening. According to the report the pen of birds were giving a sixty per cent. egg yield in December, and which he thought was a little too heavy. He claimed to cut down the egg yield by giving more scratch food to cut down the egg yield by giving more scratch food in the litter thus inducing the hens to eat less dry mash. To parade such fancy theories before the public may be profitable to the "dry-mash" concern which published the report but it is grossly misleading and unjust. We are told nothing of other conditions which might more readily have affected the egg yield. Consider the above theory of dry-mash feeding with the following which appears in a standard text book compiled by a prominent poultryman: "If (as is often the case) an effort is made to compel the birds to consume considerable quantities of the dry-mash mixture by reducing the grain until they will eat the desired quantity of the dry mash, the results are likely to be disappointing, for the birds do not like dry mashes well enough to eat them freely, and are likely to be underfed."

Standards.

Above all, the mash, whether it be fed wet or dry, should be palatable. Evidently this is aimed at in compounding the dry mash rations by the various Experiment Stations and Colleges. Each Station has its own standard mash and the variety in composition is amazing. It might be well to explain here that the reason for this lack of uniformity in mash rations is due to our lack of knowledge of the digestive co-efficients of the various grains. Those who have adopted what they call standard rations no doubt believe they are giving the fowls all of the required nutrients in approximately proper proportions, but, on the other hand, the ration may not be at all balanced nor best suited to its purpose. We need to know the digestive co-efficients before we shall be able to adopt a standard ration.

I would like to draw your attention to the composition of the dry mashes as adopted by the Colleges and Experiment Stations, not in criticism of the same at all but merely to illustrate how our best authorities differ upon the question of dry mashes. The Maine Experiment Station ration consists of: wheat bran, 2 parts by weight, cornmeal, 1 part; daisy flour, 1 part; gluten feed, 1½ parts, and meat scraps 1 part. This is the ration fed continuously with the exception that the gluten feed is left out every alternate month.

One Cornell ration is made up of the following: Cornmeal, 2 parts by weight; wheat middlings, 2 parts; wheat bran, 1 part; beef scrap, 2 parts, and alfalfa meal, 1 part. The above rations are essentially different from the one found most satisfactory at the Ontario Agricultural College which is simply bruised oats. The whole oats, which must be of good quality, are simply rolled flat and fed in hoppers. The quantity of bruised oats which fowls will consume in comparison with whole oats seems almost incredible. Permit me to indulge your attention for a few minutes with a little test we ran off last winter. We placed four self-feeding hoppers in a pen of 100 laying hens and in each hopper we placed a different mash. The hoppers were left open continuously. The mashes with the amounts consumed are given below: Mash No. 1 composed of wheat bran, 2 parts by weight; middlings, 1 part; gluten feed, 1 part and beef scraps, 1 part, of which the fowls consumed 34 lbs.; mash No. 2 composed of wheat bran, 4 parts; cornmeal, 2 parts, and beef

scraps, 1 part, of which the fowls consumed 38 lbs.; mash No. 3 composed of wheat bran, 4 parts; cornmeal, 1 part; middlings, 1 part; crushed oats, 1 part, and beef scraps, 1 part, of which the fowls consumed 10 lbs.; mash No. 4 composed of bruised oats of which the fowls consumed 190 lbs. In two weeks' time the birds consumed more than twice the quantity of bruised oats than all other three mashes together.

Methods of feeding mash in Australia are entirely different from the methods adopted in America. In Australia wheat bran and pollard (middlings) are the mill by-products used in composing the mash. The proportions used average 1 part of bran to 2 parts of pollard, though two factors govern the respective quantities of bran and pollard used. Enough bran must be added to the pollard to make the mash, when moistened, into a crumbly mass without being sticky or doughy. Boiling soup made from meat meal is poured upon the supply of bran to be used; it is then covered tightly and allowed to stand for fifteen to twenty minutes. The scalded bran is then placed in a large mixing trough and is mixed with the pollard and cut green food.

Owing to many vastly different opinions in regard to wet and dry mash feeding and since both methods are being used successfully in different places and by different people, it would seem the method of feeding the wet or the dry mash has much to do in determining its value. The comparative value of the two mashes depends greatly upon the method by which each is fed. Personally, I am of the opinion that the majority of experienced feeders would do best by a combination of the two methods—that is, feeding both wet and dry. I believe the greatest curse in wet mash feeding has been the tendency to feed too much. Never to feed more wet mash than about the size of a walnut per bird per day is a good rule. As far as dry mash feeding goes about all we can do is to make sure that the dry mash is palatable and wholesome. Ordinarily wet and dry mashes may be compounded in like manner.

In regard to proper time of feeding wet mash the best results have been obtained by feeding about mid-day. Between the hours of eleven a. m. and three-thirty p. m. is preferable. Dry mash hoppers are frequently kept closed in the mornings and opened in the afternoons. From experience I believe that laying fowls may be kept in better laying condition by feeding a little taste of moist mash each day along with the dry mash. This adds labor but the poultryman who is anxious to shirk work in sacrificing maximum results should be satisfied with a lower egg yield. The farmer and small poultry keeper can well afford the time to feed wet mash and as for the commercial poultryman the wage item must be considered.

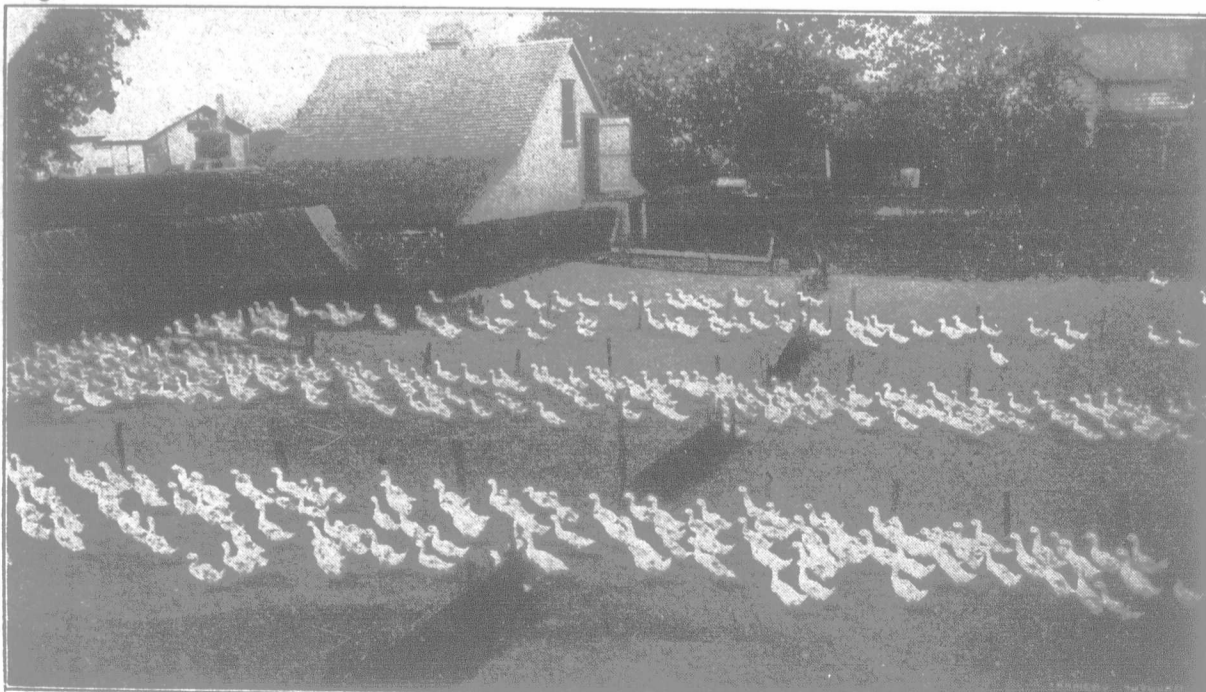
The principal object in feeding mashes is to supply the protein requirement of the total ration and the most difficult art in feeding is compounding the ration in such a way that the animals obtain suitable amounts of digestive protein. Until we know the digestion co-efficients of the various poultry feeds we will not be able to balance rations scientifically nor will we be able to discuss scientifically the comparative value of any particular methods of feeding.

Duck Raising on a Commercial Scale.

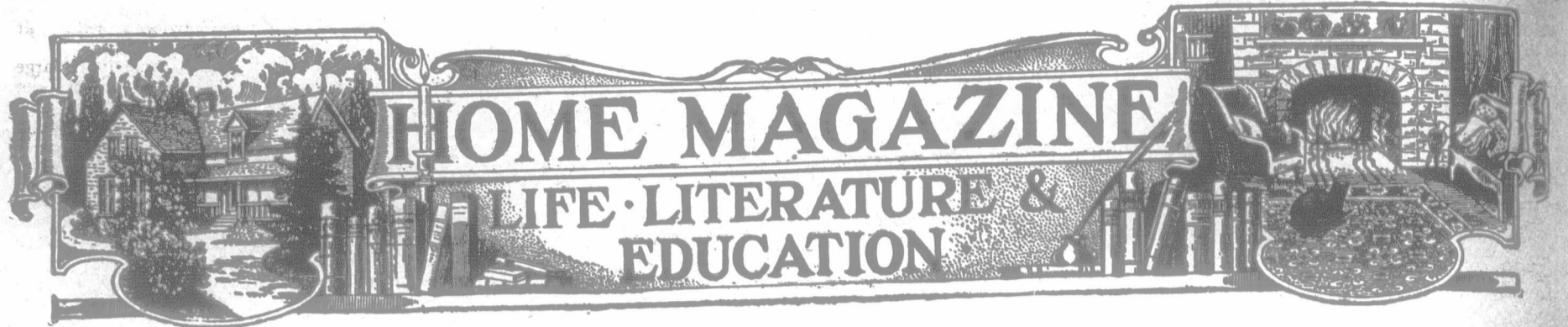
Duck raising on a commercial scale is comparatively a new industry. In Canada it has not as yet attracted the attention of poultrymen, but across the line there are a number of farms devoted exclusively to duck raising and some have an average output of from ten to twenty thousand ducks annually.

Expensive buildings are not required, provided the roof is tight and the floor dry. Ducks do not mind the cold so long as they can keep their feet warm. Cold feet affect ducks in much the same way that frozen combs injure hens. A raised floor covered with litter aids in keeping the feet warm. Provision must be made so that the ducks can take exercise, as they will not stand confinement in a house. When laying out a duck farm, arrange the buildings and yard so that the growing stock will have plenty of room; crowding retards growth and encourages disease. Water for drinking purposes is essential and ducks take a good deal of it. One method of filling their drinking fountains or troughs is to run a pipe the whole length of the yard with a tap above the trough in each pen. This system is a labor saver.

The food of the wild duck is both vegetable and animal in nature and for best results the diet of tame ducks raised in confinement should be an imitation of the natural diet. As the duck has no crop, the diet should be of a soft nature. If whole grain is fed a large portion of it is wasted. Four times a day feeding of growing stock is considered necessary. Different mixtures are used with good results. For ducks fifty to seventy days old, two parts cornmeal, one part wheat bran, ten per cent. of beef scraps, five per cent. coarse sand or grit and ten per cent. green feed, mixed with water to a dry, crumbly state, is a mixture which gives fairly good results. Some use shorts instead of bran, and others feed low-grade flour in the mash. The green stuff is largely made up of clover leaves, or finely-cut green stuff. If raising ducks for breeding, about one-half the cornmeal and beef scraps above mentioned are sufficient. A good rule to follow in feeding is to give as much at each meal as the birds will eat up clean with a relish. Overfeeding is detrimental, and if feed is left over the troughs should be cleaned before the next feeding. This is one point which all duck raisers adhere to carefully.



Ducks Marching in Military Order to Their Shed.—Underwood & Underwood.



Inland.

I cannot sing the sea,
His sullen moods or tender,
His billows proudly
Whooping the shore in splendor;

Or, proud as he, the shore
That melts not at his wooing;
Or clouds above that soar
The vagrant wind pursuing.

I know naught of the sight
Of wavelets soft a-lapping
The lazy sands at night;
Or white sails gently flapping.

Waiting the breeze at dawn
Their heart's desire to grant them;
Or night on sudden gone,
Lost in the day's grand anthem.

Only in dreams for me
The great waves oily heaving;
Or flight of sea-bird free,
The air his strong wings cleaving;

Music of wind and wave
Beyond my inland voicing,
The ebb of tide from cave
Back to the sun rejoicing.

But I can sing of these
Fair fields and simple rivers
With overhanging trees
Through which the sunlight quivers;

Of waves of golden wheat,
Or stubble field a-gleaming,
After the mid-day heat,
Under the moon, soft beaming;

Or swaying, tasseled corn
Kissed by the wind, sad rover;
Or meadows where are born
White daisies and pink clover;

Or fairy forests white
In winter dress resplendent,
Proud trees that throw the light
From icy jewels pendant.

The nature-loving mind
Finds songs in flitting shadow,
In sunshine or in wind,
In little stream or meadow.
Arnprior, Ont. KATHLEEN M. KENNY.

"Italy, France and Britain at War."

[Italy, France and Britain at War, by H. G. Wells, author of *Mr. Britling Sees it Through*, etc. Pub. by The Macmillan Co., Toronto. Price, \$1.50.]

Some weeks ago there appeared in these columns a review of a book by Mr. Phillip Gibbs, *The Soul of the War*. Today it affords us great pleasure to say something about another war book which may be justly referred to as "great,"—*Italy, France and Britain at War*, by H. G. Wells, and at the very beginning we may state that we consider one can have no surfeit of war literature in reading this last book right after either of Mr. Gibbs' famous volumes *The Soul of the War*, and *The Battle of the Somme*. True, there is a possibility of being surfeited with war literature, and it is safe to say that within a very few years we shall turn away from all war books, weary of the subject, even as we turn away to-day from a great mass of the stuff that has been issued since the eventful August of 1914. But when masters of literature speak one cannot choose but listen, and in the Great War both Mr. Wells and Mr. Gibbs have found material worthy of their genius.

Nor is *Italy, France and Britain at War* in the least like *The Soul of the War*, or *The Battle of the Somme*. Mr. Gibbs, working in the hospitals, going right in the midst of the fighting, has seen more of the actual front-line events of the war than has Mr. Wells. And his fire-tipped

pen has made those events live again for us. Mr. Wells, too, has been at "the front," but behind the lines rather than in the midst of the great uproar. He has seen the vast preparation in all its immensity; he has talked with great generals; he speaks as the philosopher and the prophet rather than the describer;—and the result, embodied in book form by his master pen has produced a volume intensely interesting, intensely suggestive, that may be well read in succession to Mr. Gibbs' more thrilling narrative. It helps one to the reflection that must follow upon world-stirring episodes, and must follow universally if lasting results are to be achieved. For every world-

have been seeing it, sometimes quite closely for a full month, I hate it more than ever; I never imagined a quarter of its waste, its boredom, its futility, its desolation. It is merely a destructive and dispersive instead of a constructive and accumulative industrialism. It is a gigantic, dusty, muddy, weedy, blood-stained silliness. It is the plain duty of every man to give his life and all that he has if by so doing he may help to end it."

And one closes the book knowing that the full horror of this war has burst upon Mr. Wells in the clear realization that war is no longer even the hideous thing it once was, but more hideous still since it has become a combat of men against

at this new warfare as a man of the old army class."

It is a war of machines, of "new arms for old ones," and he concludes, "victory in this war depends now upon three things, the aeroplane, the gun and the Tank developments,"—especially upon the first of the three: "The aeroplane remains now more than ever the instrument of victory upon the western front."—Then follows one of the most interesting descriptions of Tanks that we have read.

Like Jules Verne, Wells is something of a prophet, and in the invention of the Tank he sees one of the reasons why this war must end all war. If it does not, he looks forward to developments so terrible that the world cannot stand it: "After one has seen the actual Tanks it is not very difficult to close one's eyes and figure the sort of Tank that may be arguing with Germany in a few months' time about the restoration of Belgium and Serbia and France, the restoration of the various Zeeplein and submarine murders, the freedom of Poland, and the guarantees for the future peace of Europe. The machine will be perhaps as big as a destroyer and more heavily armed and equipped. It will swim over and through the soil at a pace of ten or twelve miles an hour. In front of it will be corn land, neat woods, orchards, pasture, gardens, villages and towns. It will advance upon its belly with a swaying motion, devouring the ground beneath it. Behind it masses of soil and rock, lumps of turf, splintered wood, bits of houses, occasional streaks of red, will drop from its track, and it will leave a wake six or seven times as wide as a high road, from which all soil, all cultivation, all semblance to cultivated or cultivable land will have disappeared. It will not even be a track of soil. It will be a flayed strip of nature. In the course of its fighting the monster may have to turn about. It will then halt and spin slowly round, grinding out an arena of desolation with a circumference equal to its length. . . . Behind the fighting line these monsters will manoeuvre to and fro, destroying the land for all ordinary agricultural purposes for ages to come."

"It has to be remembered," he continues, "that war, as the aeroplane and the Tank have made it, has already become an impossible luxury for any barbaric, uncivilized people," and he sees it narrowed down to eight powers—Britain, France, Germany and the United States (still neutral when his book was written), and in a degree, Italy, Japan, Russia and Austria. And upon these nations, he holds, rests the onus, when this war is over, of forming an organized world-control—the only hope for the future of the world.

A most interesting chapter is entitled, "How People Think About the War.—Do They Really Think At All?" Upon the whole he concludes that they do not, at least to any real purpose. People are dazed, or "swamped by the spectacular side of the business," or fatigued and "clutching at comforting falsehoods." But, he argues, people must think, and to more purpose than ever before. He has little patience with the sage remark, "Let us finish the war first, and then let us ask what is going to happen after it." "One likes to think," he says, with sarcasm, "of the beautiful blank day after the signing of peace when these wise minds swing round to pick up their deferred problems." And few will disagree with his conclusion, "I submit that a man has not done his duty by himself as a rational creature unless he has formed an idea of what is going on, as one complicated process, until he has formed an idea sufficiently definite for him to make it the basis of a further idea, which is his own relationship to that process. He must have some notion of what the

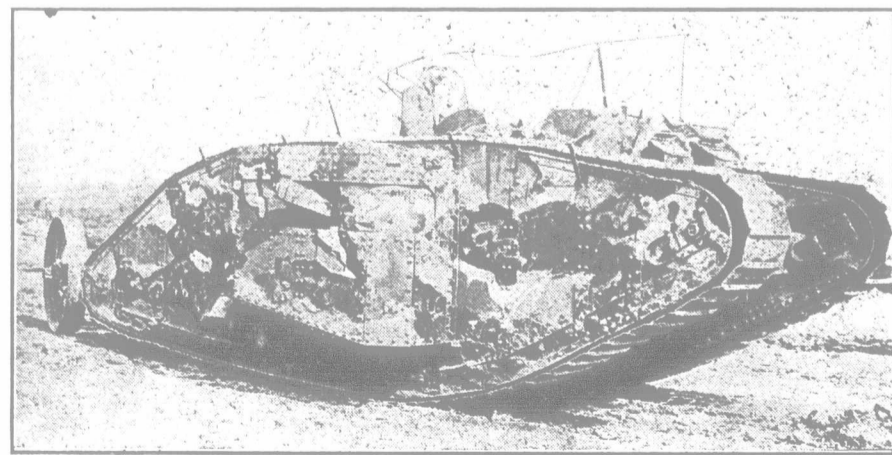


Army Officers Testing New American Tank, Los Angeles, Cal.—Underwood & Underwood.

upheaval should in the long run lead to something better if the existence of this planet is to be justified.

During the latter part of 1916 Mr. Wells made a tour of Italy, France and England. This book is the result. The mixed emotions with which he set out on that trip may be imagined. "I travel badly," he says, "I speak French and Italian with incredible atrociousness; and am an extreme Pacifist. I hate soldiering." And at the end he has only to say of war what he has always said of it: "Modern war is an intolerable thing. It is a thing to end for ever. I have always hated it, so far that is, as my imagination has enabled me to realize it; and now that I

machinery, men against machinery capable of inflicting in one day more destruction and torture than was possible to the primitive savage in ages of his existence—deviltry come to a climax. "This is a thing that I want to state as emphatically as possible," he says. "It is the quintessence of the lesson I have learnt at the front. The whole method of war has been so altered in the past five and twenty years as to make it a new and different process altogether."—And thus it is that the old methods are useless as the old scrap heap, and that to-day "the business organizer, the civil engineer, the energetic man of general intelligence is just as likely to make a successful commander



British Tank Ready to go Into Action.

It is "camouflaged" to make it indistinguishable, that is painted in blotches to make it resemble the field over which it travels.—Underwood & Underwood.

process is going to do to him, and some notion of what he means to do, if he can, to the process." Unless this is carried out individually and universally, he fears that "we shall still be in a drama of blind forces following the line of least resistance," for long enough after the war. "Being bored by war and hating war is quite unproductive unless you are thinking about its nature and causes so thoroughly that you will presently be able to take hold of it and control it and end it."

The soldiers at the front, so far, are unable to think in this way. He found them simply borne on, as in a great nightmare. The men were just puzzled. "I have seen thousands of poilus sitting about in cafes, by the roadside, in tents, in trenches, thoughtful. I have seen Alpin sitting restfully and staring with speculative eyes across the mountain gulfs towards unseen and unaccountable enemies. I have seen trainloads of wounded staring out of the ambulance train windows as we passed. I have seen these dim imitations of questioning reflection in the strangest juxtapositions; in Malagay soldiers resting for a spell among the big shells they were hoisting into trucks for the front, in a couple of khaki-clad Maoris sitting upon the step of a horse-van in Amiens station. It is always the same expression one catches, rather weary, rather sullen, intimated. The shoulders droop. The very outline is a note of interrogation. They look up at the privileged tourist of the front, in the big automobile or the reserved compartment, with his officer or so in charge, passes—importantly. One meets a pair of eyes that seems to say: 'perhaps you understand . . . Yes, the men are as in a dream, puzzled. But they are asking why. Some day.'"

In a short review one must pass over much—this time some vivid descriptions of the big munitions outputs, the war-swept landscape, the difficult Italian front, and much more that falls within the scope of the purely descriptive. When one deals with Wells one wants to quote most from his reflections and his prognostications. As one might expect, he says something of the social problem—and one would like to pause upon that—then he comes to the religious trend of events, which is, perhaps, the subject with which Wells is most interested in this latest stage of his development, if one may judge by the fact that he makes it the key of at least two of his latest books, besides the whole theme of his

much-discussed volume *God the Invisible King*.

The war, he thinks, is producing a very great volume of religious thought and feeling, tending, he hopes, to blow off much froth that has hitherto posed as solid in things ecclesiastical. "Magic incantations," he hopes, will go, to be replaced by thought about the great questions of life, "What the multitude demands mutely and weakly, and what the organized churches are failing to give."

Perhaps the following will not be acceptable to some, to whom personal gain means more than the world's good—but yet, but yet—Mr. Wells is far-seeing: "What I conceive to be the reality of the religious revival," he says, "is to be found in quarters remote from the religious professionals. Let me give but one instance of several that occur to me. I met soon after my return from France a man who has stirred my curiosity for years, Mr. David Lubin, the prime mover in the organization of the International Institute of Agriculture in Rome. It is a movement that has always appealed to my imagination. The idea is to establish and keep up to date a record of the production of food staples in the world with a view to the ultimate world control of food supply and distribution. When its machinery has developed sufficiently it will, of course, be possible to extend its activities to a control in the interests of civilization of many other staples besides foodstuffs. It is in fact the suggestion and beginning of the economic world peace and the economic world state, just as the Hague Tribunal is the first faint sketch of a legal world state. . . . So that when I found I could meet Mr. Lubin I did so very gladly. We lunched together in a pretty little room high over Knightsbridge, and talked through an afternoon."

"He is a man rather after the type of Gladstone; he could be made to look like Gladstone in a caricature, and he has that compelling quality of intense intellectual excitement which was one of the great factors in the personal effectiveness of Gladstone. . . . At first we talked of his Institute and its work. Then we came to shipping and transport. Whenever one talks now of human affairs one comes presently to shipping and transport generally. In Paris, in Italy, when I returned to England, everywhere I found 'cost of carriage' was being discovered to be a question of fundamental importance. Yet transport, railroads and shipping, these vitally

important services in the world's affairs, are nearly everywhere in private hands and run for profit. . . . It makes the business of food supply a gamble. And it need not be a gamble."

"As we talked the prospect broadened out from a prospect of the growing and distribution of food to a general view of the world becoming one economic community."

"I talked of various people I had been meeting in the previous few weeks. 'So many of us,' I said, 'seem to be drifting away from the ideas of nationalism and faction and policy, towards something else which is larger. It is an idea of a right way of doing things for human purposes, independently of these limited and localized references. Take such things as international hygiene, for example, take this movement. We are feeling our way towards a bigger rule.'"

"The rule of Righteousness," said Mr. Lubin.

"I told him that I had been coming more and more to the idea—not as a sentimentality or a metaphor, but as the ruling and directing idea, the structural idea, of all one's political and social activities—of the whole world as one state and community, and of God as the King of that state."

"But I say that," cried Mr. Lubin, "I have put my name to that. And—it is here!"

He struggled up, seized an Old Testament that lay upon a side table, and flung it upon the table. He stood over it and rapped its cover. "It is here," he said, looking more like Gladstone than ever, "in the Prophets."

We talked of religion for two hours. Mr. Lubin sees things in terms of Israel and I do not. For all that we see things very much after the same fashion. That talk was only one of a number of talks about religion that I have had with hard and practical men who want to get the world straighter than it is, and who perceive that they must have a leadership and reference outside themselves. That is why I assert so confidently that there is a real deep religious movement afoot in the world."

—And that, mark you, among "hard and practical men," not particularly identified with crystallized religious bodies. The concluding words of this chapter are interesting—and suggestive—but they are not given here. Further on in the book, Wells drives a last nail: "I believe that this impulse to collective service can satisfy itself only

under the formula that mankind is one state of which God is the undying king, and that the service of men's collective needs is the true service of God,"—the true religion, in short, that will be established in the future, near or far, when men have learned how wicked and futile and eternally foolish it is to put self always first.

One would like to quote much more from this book of 285 pages—from the chapter entitled, "The Riddle of the British," and from that other, "Social Changes in Progress," but space cannot be afforded, hence those who are interested must secure the book for themselves.

In the last chapter, "The Ending of the War," Mr. Wells discusses the most recent suggestions for the stopping of all war: the League of Peace, with an International Tribunal for the settlement of disputes; the control of all staple products by an International Bureau, growing, probably, out of the International Bureau of Agriculture at Rome; the revision of all tariffs, etc., in such a way as to prevent dissatisfaction between nations; a fair deal to all small nations; the substitution of the international for the narrow national mind. Then he concludes:

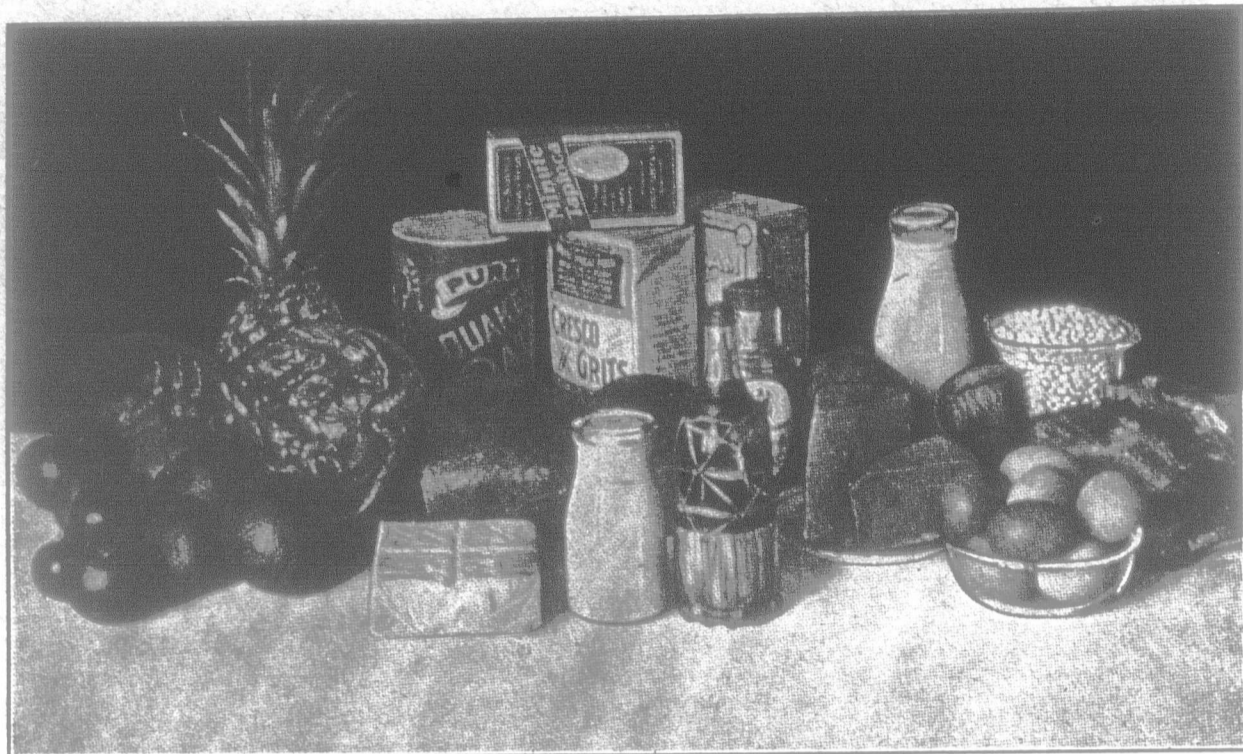
"If I am doubtful whether after all this war will 'end war,' I think on the other hand it has had such an effect of demonstration that it may start a process of thought and conviction, it may sow the world with organizations and educational movements considerable enough to grapple with and either arrest or prevent the next great war catastrophe." And, last of all, "I conceive myself to be thinking as the world thinks, and if I find no great facts, I find a hundred little indications to reassure me that God comes. Even those who have neither the imagination nor the faith to apprehend God as a reality will, I think, realize presently that the Kingdom of God over a world-wide system of republican states, is the only possible formula under which we may hope to unify and save mankind."

Economy in War-Time.

Everywhere, nowadays, one hears the word "Economy." We are asked to economize—economize—economize. Yet it is to be feared, some do not understand the real meaning of the word. They confound it with "parsimony," "stinginess," "doing without things." To a certain extent it does mean doing



Booth at the Windsor Horticultural Society's Flower Show. Illustration from Horticultural Societies' Report, 1916. Flower shows should be a feature in every village and school section.



Each Day Select Some Food Belonging to Each Group. But Not Necessarily the Ones Illustrated.

Group of Foods rich in Mineral Salts and Water: Pineapple, Egg Plant, Lettuce, Tomatoes, Apples, Lemons, Oranges

Group of Foods largely Carbohydrate (Starch and Sugar): Cereals, Potatoes, Bread, Honey

Group of Foods largely Protein: Milk, Beans, Salt Codfish, Filet of Beef, Eggs and Cheese

Group of Fats: Butter, Cream, Olive Oil

without things. It means doing without anything that indicates mere luxury—unnecessary automobile rides (with the expenditure of gasoline, much needed at the front), new furnishings, unnecessary clothes, unnecessary and expensive dainties at the table, candy, cigars and tobacco in every form, etc. All these things may, and should be done without during this war-time. By doing without them we liberate just so many necessary things for the front. If factories are not making luxuries for us their time will be put upon real necessities.

Economy also means patching and darning things so that they will last just as long as possible; making clothes "down" for the children; turning old bedspreads into bath towels and old table-linen into napkins and tea-towels; making old shirts into aprons, old waists into corset-covers and old skirts into petticoats. It means using up every patch of cloth in quilts—if we don't need them someone else will, some Belgian, or Serbian, or Roumanian, or the poor in some of our own cities, poorer still because of the present high cost of living. These are but a few suggestions. A hundred others will suggest themselves to every woman who really keeps her brain working to see how she can economize in this way.

But what economy does *not* mean is cutting out things that are really necessary, and perhaps this mistake is more likely to be committed against the food supply than anywhere else. Some folk, in trying to economize, at once proceed to cut down the menu until the table becomes so skimpily supplied with real necessities that in the long run the health of every one in the family suffers. And the worst of it is that this takes place so slowly that the real reason is never suspected. Little by little, with insufficient feeding, the constitution runs down, and a run-down constitution simply means a garden plot for anemia and consumption, and neuritis and a host of ills. And it is to be remembered that "insufficient feeding" does not mean insufficiency in quantity, but insufficiency in *quality*. It is quite possible to have plenty of eatables but not enough real food.

Now, surely this is very poor "economy." As a matter of fact it is not economy at all. An insufficiently fed body means a body unfitted for its work. As a consequence less work can be done, or it is done badly, therefore there is a clear loss in time and money, even when there is not a doctor's bill at the end.

For children especially such false so-called "economy" is bad. They, above all, need plenty of good food and a well-balanced diet to make them grow into "fitness" of both body and mind. After all we humans are just animals. You know how young pigs and calves become thin and stunted if not properly fed, and how grown cattle become scraggy and unsalable if not well attended to. We humans are just the same. We can

neither grow nor keep in repair when we are grown, unless we are fed adequately to the needs of our bodies.

Nevertheless, "economy" may be carried out at the table.

It may be carried out in the first place by leaving out all rich, unwholesome and expensive foods; and by leaving out also such a variety of foods at a single meal as is needless and foolish. But it may be carried out, also,—yes, *must* be, if it is true economy—by providing at each meal *plenty, yet not too much*, of the food constituents really needed by the body.

This means leaving out rich puddings and pastries, perhaps altogether. It means also taking care not to have too many proteid foods at one meal—say meat, rich pudding and cheese.

But it does mean supplying every day enough protein, enough carbohydrates

and enough green foods and fruit, with their bulk and medicinal properties, to meet the needs of the system.

Don't be afraid of those words "protein," etc. You can't become familiar with them too soon, for they are the convenient terms for expressing something you need to know. It is not hard, after all, to remember that proteid foods are those that *build up muscle*, make children grow and keep the bodies of grown folk in repair according as they wear out; that carbohydrates (starchy foods) help also in doing this, but have an effect all of their own in producing *energy*; that fats give *heat* and energy; and that the mineral and medicinal properties of green vegetables and fruits help to keep the whole body well and in good working order.

People are seldom pale and weak, or nervous, if well fed with a proper pro-

portion of all these things—that is, unless the effect of the food is spoiled by some organic disease that must be removed before the food can do its work.

Having mastered the meaning of these terms it is not hard to remember the following:

Proteid Foods—for Muscle:

Lean meat, eggs, fish, poultry, milk, cheese, cottage cheese, dried beans and peas, lentils, nuts and bread.

Carbohydrates—for Building and Energy: Bread, cereals, macaroni, cakes, starchy puddings, potatoes.

Fats—Heat and Energy:

Butter, cream, fat of all kinds in meat, nuts and even in cornmeal, salad oil.

Foods for Medicinal Properties and Bulk: All kinds of tree and brush fruit, all sorts of green vegetables, greens, strawberries, tomatoes, melons, squash, and such underground roots as beets, carrots, parsnips, artichokes, and turnips.

Foods for Sugar—Energy Producers: Sugar, honey, molasses, jams, jellies, preserves, dried fruits. Beets also contain sugar.

Every day a selection from each of these classes is needed to keep the body well and fit, and so a "mixed diet" is always recommended. Bread and butter (or butter equivalent) is of course taken for granted as additional at each meal; while fruit and green vegetables may also well have a place.

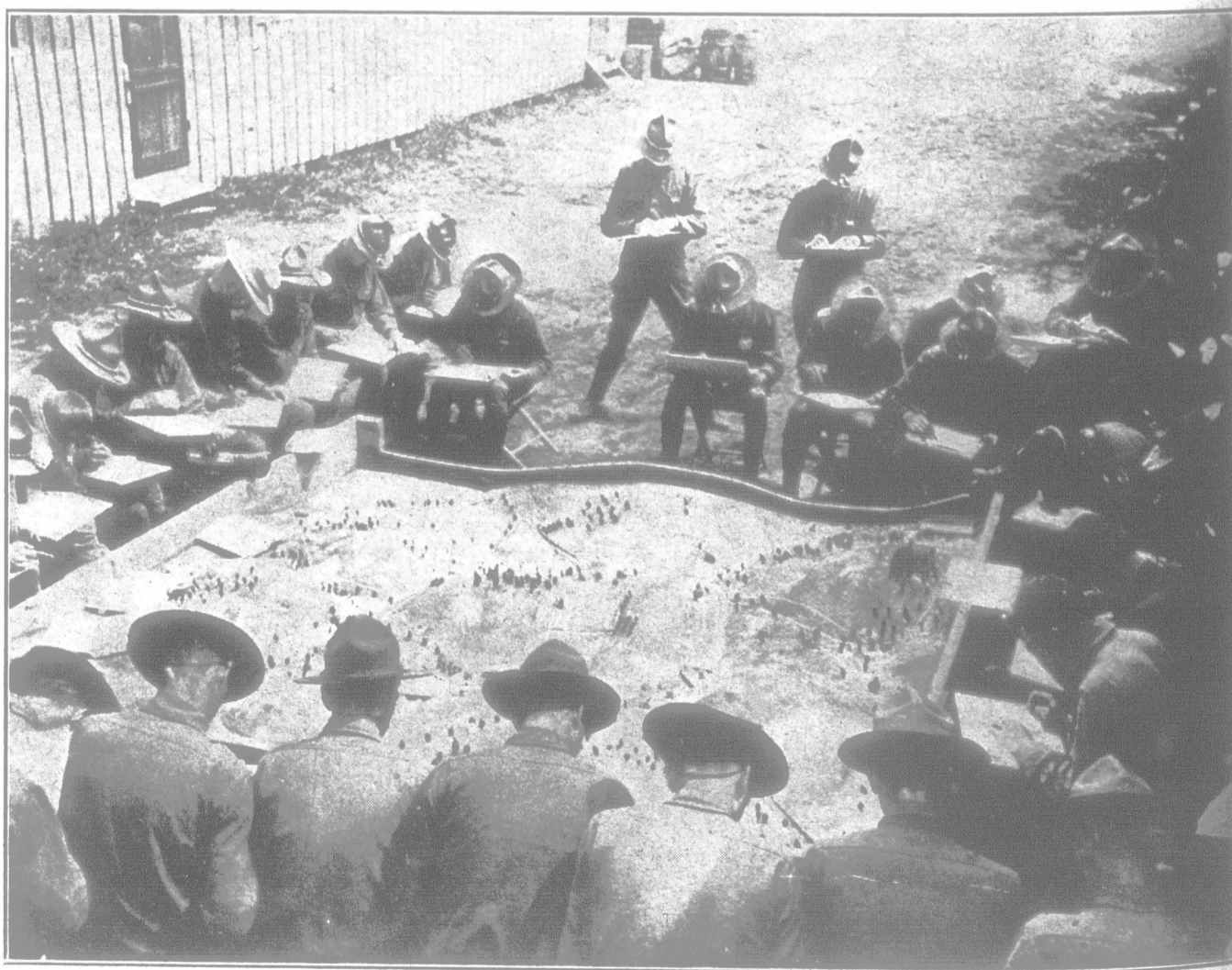
And so, very good breakfasts are:

1. Porridge and creamy milk, toast and butter, jam.
2. Bacon and toast, muffins and raw fruit or jam.
3. Eggs in any way, with toast, muffins or puffs and fruit. Potatoes may be added to any of these for hard-working folk.

It is quite useless and expensive to serve porridge, eggs and bacon all at one meal, as that would mean too much protein. With bacon many people prefer to omit butter, as the bacon gravy supplies enough fat, so here is a justifiable economy.

A well-balanced dinner may consist of: Soup; beef or fish, potatoes and another vegetable; a light pudding, bread and butter. Fruit with cream may be substituted for the pudding.

Soup should begin a dinner more frequently than it does, but only a little should be served, and it should be a light one, not a heavy soup such as is suitable for supper. Its use is to stimulate the glands of the stomach and set the juices flowing, thus helping digestion.



United States Aviators Learning Their Business.

Aeroplane observers making topographic sketches of the enemy terrain from camp stools, which are for the present make-believe aeroplanes, The photo shows them grouped about an improvised battlefield over which they are supposed to be flying and making maps but they are actually "somewhere in the United States."—Underwood & Underwood.

Supper affords a greater scope for variety. A few examples for well-balanced suppers are:

1. Boston baked beans; a green salad, bread and butter and preserved fruit.
2. Macaroni and cheese, currant or date bread and fruit.
3. Cold meat and pickles, green salad, cake and fruit.
4. Scalloped potatoes or potato salad, cornmeal cake and syrup.
5. A hot egg dish, a milk soup or an egg salad, toast or muffins, and fruit.

The menus given above give no great variety at any one meal, but they provide for enough variety to supply all the food constituents, and they suggest endless change from day to day. Soup, for instance, may be of many kinds, so may jams, fruits, green vegetables, root vegetables and salads. Brown bread should often take the place of, or supplement, white.—Proper feeding, then, means "economy;" wasteful or insufficient feeding does not.

Cutting out all one's charities has no part in true economy. If one does that one adds to one's purse at the expense of one's character,—and there is no waste so great as the spoiling of one's character.

Neither is economy urged at the present time to make people richer. It is true that we need to be more saving because things cost so much more than they used to; money does not "go so far." And we need to look forward to our future. For taxes will be heavy when the war has to be paid off, and things will never again in our time be what they were four years ago.—But there is another side to the question. Never before in the history of the world were so many people needing help, just to keep them alive and fairly comfortable. All over Europe there are starving people—starving because of the war and not because of their own fault. Were our turn to come next we should know what this means.—And the Red Cross and Soldiers' Comforts' Funds continually cry for more and more help. If, by economizing in reasonable ways, and by producing all we can, we can help these people, surely it is our clear duty to do so.

Producing—yes, in this war-time that, too, is a factor in Economy, perhaps the greatest of all. This is no time for producing crocheting and tatting, fancy counterpanes and embroidered cushion tops, elaborate dresses and much time to be spent in ironing. But it is a time to work for the production of grain and vegetables, socks and trench sweaters, wool helmets and mittens, eggs and meats of all kinds, cheese and butter. This is not, in short, a time for frills, but for all useful work.

Hope's Quiet Hour

Then . . . the Lord Shall Answer.

Then shalt thou call, and the LORD shall answer; thou shalt cry, and He shall say, Here I am.—Isa. 58 : 9.

"If we with earnest effort could succeed To make our life one long-connected prayer, As lives of some perhaps have been and are,—

If,—never leaving Thee,—we had no need Our wandering spirits back again to lead Into Thy presence, but continued there, Like angels standing on the highest stair Of the sapphire throne,—this were to pray indeed!

But if distractions manifold prevail, And if in this we must confess we fail, Grant us to keep at least a prompt desire, Continual readiness for prayer and praise An altar heaped and waiting to take fire With the least spark, and leap into a blaze!"

We are very apt to talk as if God failed to carry out His promises in regard to prayer. We ask, and it seems as if we don't receive. Then we grow discouraged, forgetting that our Lord has told us that "men ought always to pray, and not to faint."

A few weeks ago a little fair-haired child of three was saying his prayers. Over and over again he had said, with the beautiful trust of childhood: "God

bless daddy, and bring him home from the war." But this night he stopped short before the usual petition was spoken.

"What's the matter, Jack?" asked his mother. "Go on, dear."

But the little fellow looked up, with doubt in his eyes: "My daddy is a big, heavy man, mother. I don't think God can do it."

Isn't that the way we elder children reason? We ask God for something hard; and when, after many days, He gives no sign of hearing our prayer we give up expecting any answer, though our lips may still utter the petition.

Let us cultivate the poet's vision, and wait God's time.

"Unanswered yet? The prayer your lips have pleaded

In agony of heart these many years? Does faith begin to fail? Is hope departing And think you all in vain those falling tears?

Say not the Father hath not heard your prayer; You shall have your desire sometime, somewhere."

We are told to pray in faith, believing, and we shall receive. Does that mean faith in the wisdom of our own prayers?

LORD shall answer; thou shalt cry, and He shall say, Here I am."

If we don't fulfil the conditions can we reproach God for His silence? If we do pray, in the Name of Christ, that means that we are owning Him as King, and place our petition in His hands. Let us trust it there and try to live as He has commanded; so that He may be able to give us our heart's desire; for "he that turneth away his ear from hearing the law, even his prayer shall be abomination."

The prophet Zechariah sternly warned men who were cruel and hardhearted, oppressing the widow, the fatherless and the stranger, that as God spoke to them and they refused to listen so a time would come when they would call on Him and He would not hear.

God is faithful and just to accept the prayer of every penitent heart; but when our sins have brought down unpleasant consequences upon our heads, and we pray for release from the painful results of our own misdeeds, God may love us too much to remit the punishment. Too often we sorrow for the consequences of sin rather than for the sin itself. That is not repentance. If we hate the sin and want to be really good, instead of desiring to be thought good, then we

was not removed—for God's strength was made perfect in his weakness until he was able to "glory" in his "infirmities."

Even the Son of God, kneeling in the garden in that dark hour when he faced the gathering storm, prayed that the cup of agony might pass from Him. Though the prayer seemed to be denied it was really answered in overflowing measure. The power to endure, treading all the terrors of death under foot, was as much grander an answer to prayer as if a soldier should ask to stay safely under shelter and should be answered by a commission to lead his men fearlessly forward where the danger was greatest. Ask the hero, when the victory is won, whether he would have been better pleased to have been kept well out of the way of danger.

The trouble with us is that we don't wait until the battle is over to find fault with the orders of our Captain. Let us trust God here and now. When—on the other side of the smoke of battle—we are shown His plans for our lives, we shall see that He made no mistakes. Let us thank Him every day for His wise love and foresight which makes Him answer our prayers in the way we should choose if we could see our lives as a whole. It shows little faith to only thank Him when we can see the answer.

When our Lord stood beside the open grave of His "sleeping" friend He lifted His eyes in thanksgiving for the coming resurrection of Lazarus. "Father, I thank Thee that Thou hast heard me. And I know that Thou hearest me always." He said, in perfect confidence that all was well, though death seemed to have conquered life.

If we fulfil the conditions, placing ourselves unreservedly at the disposal of our King and trying to follow where He leads us, then we know that the Lord shall answer our prayers. It is for Him to choose the best time and manner of answering, but we can already look up and say: "Father, I thank Thee that Thou hast heard me"—then we can patiently wait for the answer.

What joy a mother can give to God when her prayers for her son seem to be unavailing yet she still gives thanks, saying: "I know that Thou hearest me always". Her prayers for her boy's safety may cross the sea, passing on the way the cable message telling that the good soldier has fought a good fight and finished his course. Yet she still trusts God.

When Martha met Jesus she knew that her brother had been "dead"—as we call it—four days, yet she said confidently: "I know, that even now, whatsoever Thou wilt ask of God, God will give it Thee". And she was right.

Let us thank our Friend even when His gifts are in sealed packages and we cannot see the jewels they contain.

DORA FARNCOMB.

For the Needy.

Two dollars, "for someone in need," reached me to-day "from a friend in Richard's Landing." It went out at once to help a poor woman whose husband is laid low with tuberculosis. She is making a brave fight against many difficulties. In her name I thank our unknown friend. HOPE.

The Windrow

Every effort is being made to save the trees in Northern France which were torn by battle during German occupation. Tree-surgery has been applied with such effect that results are said to be marvellous.

The management of the Chateau Frontenac at Quebec having found it impossible to prevent the waste of bread served at tables is making war bread for the hotel staff, which is said to be of very good quality, on the following receipt: twenty pounds stale bread (soaked or breadcrumbs) added to four gallons of French bread sponge, twenty pounds of Graham flour and thirty pounds of wheat flour. This rebaked bread is said to be very palatable.—"World-wide."

The War Office has drawn attention to the wastage of food in parcels sent by relatives and friends to men in the expeditionary forces. More than one-half



Spirea, illustration from Horticultural Societies' Report, 1916. There are many species of spirea that should find a place in the borders of the lawn. They are easily grown and very effective.

Does it mean believing that we know exactly what is best for us? Let us remember that those words were spoken to the apostles, to those who had left everything—friends, home, business—to follow Christ. They had already shown that they had faith in Him; and to have faith in God means to be satisfied that what He gives, or (for a time) withholds, must be best for us. The Father will give us our heart's desire when the right time comes. If we are really trusting Him we shall wait patiently, as a farmer waits for his fruit-trees to bear.

But prayer is not a magic talisman, like a fairy's wand. If we study the Bible we shall find many conditions hedging round the great fortress of prayer. In the chapter from which our text is taken we find that the "Then" of the message refers to many things. If you fight against wickedness and oppression, care for the outcast and hungry, keep the Sabbath day holy, honor God and do His will, instead of seeking your own pleasure: "Then shalt thou call, and the

will gladly accept the Refiner's fire which is intended to burn away the dross.

Our Father's great object in keeping us in this school, where temptation and pain cannot be escaped, is not to spoil us. If prayer were a magic wand which could wave away all pain and trouble from a child of God, it would be a ruinous gift. If even the Captain of our salvation was perfected through sufferings (Heb. 2 : 10) are we willing to avoid the pain He accepted?

Even God's most faithful servants do not find that prayer is a magic talisman with which they can make life a summer holiday for themselves and their friends. Moses earnestly pleaded that he might be allowed to enter Canaan and his prayer was not answered until after his death. Then he was privileged to converse with our Lord on the Mount of Transfiguration.

St. Paul asked thrice that some trouble (a "thorn in the flesh") might be removed. The answer to his prayer was far greater than he expected—though the "thorn"

of the parcels containing foodstuffs, it is said, arrive quite unfit for consumption.

The American troops at the front seem to have fixed upon Sullivan's song, "Hail, Hail, the Gang's All Here," for their marching air.

Which are the most popular short poems in the English language? An indication of American preferences has recently been given by a plebiscite taken among its readers by the "Branch Library News," published by the New York Public Library. The list runs as follows: Matthew Arnold's "Dover Beach," Tennyson's "Crossing the Bar," Keats's "La Belle Dame Sans Merci," Tagore's "To a Portrait," Kipling's "Gunga Din," Mrs. Browning's "Sonnet from the Portuguese (III)," Amy Lowell's "Patterns," Jonson's "Song to Celia," Marlowe's "The Passionate Shepherd to His Love," Service's "The Shooting of Dan McGrew," Kingsley's "The Sands of Dee," Longfellow's "Sandalphon," Lowell's "Aladdin," and Ingalls's "Opportunity." It is, as a writer in the "Westminster Gazette" remarks, a curious selection. How many of them do you know?

Smiles.

Samuel.—"Do you think your father would object to my marrying you?" Sally.—"I couldn't say, Sammy. If he's anything like me, he would."

He Knew.

"Look here," howled the angry officer. "Don't you know the proper thing to do when addressing me?" "Yes, sir," returned the erring recruit. "A pal told me to keep calm an' 'old me tongue."

The sad-looking man at the corner table had been waiting a long time for his order. Finally, his waiter approached, and, with a flourish, said: "Your fish will be coming in a minute or two now, sir." The sad man look interested. "Tell me," he said, "what bait are you using?"

Wu's Wit.—Wu Ting Fang is at the head of the Chinese Foreign Office and you can't put much over on a man with as good a sense of humor as Dr. Wu. T. K. H. recalls his famous wheeze about the Chinaman who committed suicide by eating gold-leaf. "But I don't see how that killed him—how did it?" inquired an American woman. "I suppose," said Wu, seriously, "that it was the consciousness of inward guilt!"—St. Louis Globe.

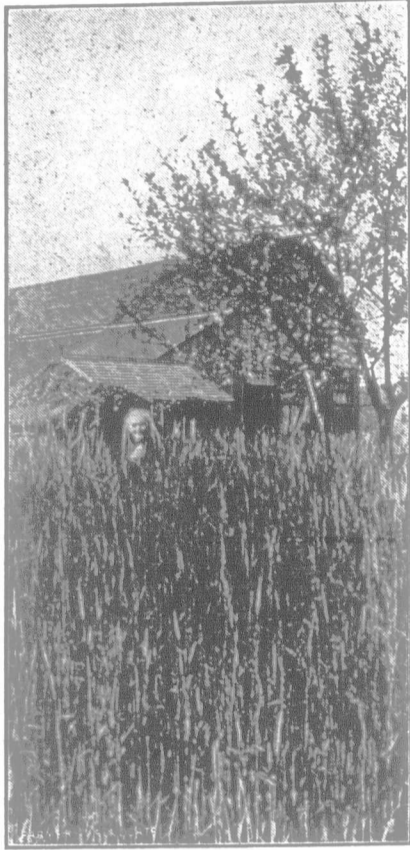
Margaret Illington, the actress, was a protegee of Mark Twain during the latter years of his life, and when on the road used to correspond with him regularly. In one letter she told him she was not feeling well, and he wrote back promptly, advising her to try a new style of magnetic health belt that had just been placed on the market.

Miss Illington took the advice. After using the device for a few days she wrote him as follows:

"I bought one of those belts, but it did not help me a bit."

By wire came back this answer: "It helped me. I own stock in the company."

A Scottish tourist, wandering about the streets of Paris, some distance from his hotel, found himself in a maze from which he could not escape, and, to make things worse, he failed, through ignorance of the language, to get any information to guide him homeward. Then a happy thought struck him. By dint of signs he concluded a bargain with a fruit hawker for a basketful of gooseberries, and, to the amazement of everybody, he walked about shouting, "Fine Scotch grozers, a penny a pun, a penny a pun!" This went on for a while till a fellow countryman rushed forward to him, and, seizing him roughly by the shoulder, asked, "Man, d'ye think ye're in the streets o' Glasca that ye gang about crying like a madman?" "Eh!" he replied, with a sense of relief. "Ye're juist the man I was looking for. D'ye ken the way to my hotel?"



A City Farm.

In these days when "Production" is everywhere cried, Throughout all our Empire's borders so wide, There's a small "city farm" without any man Which does its small bit as well as it can. Last year after having this soil worked with care, A crop of fall rye was then planted there, When June's days were longest you see how it grew, As its owner looks out from its midst right at you.

Then the scythe laid it low, and it helped to produce Rich, yellow butter for citizens' use; And the land where it stood was again covered o'er With manure, and plowed as it had been



The Pet of a Regiment.

This wild boar, captured when very young, has become the pet of a French regiment. It is almost as tame as a dog.

The next crop was planted ere June's days were done, And corn is now raising its blades to the sun, So the small "city farm" with its two crops a year Has paid off its mortgage—its title stands clear.

And now as my hoe clicks around through the soil, I develop my muscle by good, honest toil; My appetite grows, and I'm ready to sleep When soft o'er the landscape the darkness does creep.

Sarah Lawrence.

The Beaver Circle

Old Home Week.

BY JOHN CLAIR MINOT.

All the way from the city came Dorothy Ann and Prue, Journeying down to the country, wonderful things to do; Sure of the warmest welcome that Aunty Ruth can give, Here in the old-time mansion where their father used to live. All alone from the station, over the dusty way, Up to the very door-step where their father used to play. Oh, what a house of treasures for Dorothy Ann and Prue! Oh, what a place of wonders till Old Home Week is through!

Up in the early morning when the grass is shining wet; Hurrying into the orchard for the apples they can get; Building a fairy palace by the side of the pasture wall; Gathering grapes in the arbor where the fluttering pigeons call; Racing off to the woodland for a cool and hidden nook; Fishing in vain for the minnows that swim in the shaded brook; Finding a thousand pleasures, each with the newest charm, Just as their father found them when he was a boy on the farm.

Playing a time in the dooryard, then off to the fields again, Where the quail is calling in the midst of the golden grain; Back to the sunny garden where the old-time posies grow— Zinnias, phlox and poppies, sweet-williams and golden-glow; Part of the August sunshine, and never a moment still Till the fall of the twilight brings the cry of the whippoorwill. Oh, what a place of treasures for Dorothy Ann and Prue! Oh, what a wealth of pleasures till Old Home Week is through!

Little Bits of Fun.

So Thin She Fell in.

There was a young lady of Lynn, Who was so exceedingly thin, That when she essayed To drink lemonade She slipped through the straw and fell in.

Senior Beavers' Letter Box.

Dear Puck and Beavers.—This is my first letter to your charming Circle. I am in the senior fourth class, and try to go to school every day. I thought I should like to write to tell a story I have made up.

The Children's Fortune.

Once upon a time an old man who lived at the back of the woods had three great grandchildren. They lived in the city and they had never seen him.

One day their mother said: "How would you like to go to the farm at great grandfather's?" They all thought that a capital idea. One morning their mother got up and called Lucy, Willie and Marjorie (for those were their names) to get up, for they were going to get on the train and go to the village, then get a cart and go to the woods. They were so excited they could hardly eat their breakfast. Soon it was seven o'clock and they went to the train. They got there just in time. They had a delightful ride and got to the village about noon. They found a cart to take them to their great grandfather's.

He had a splendid playground for them. The mother kept house while the children played. They had great fun in the woods. Willie made a bow and arrow, and they took turns shooting. They learned the names of the flowers and trees. In the fall they had to go home sad and lonely. In the winter their great grandfather took sick and after a few weeks in bed he died leaving a great fortune to Willie and his sisters. Well, I will close with a riddle:

Love I sit, love I stand, love I hold fast in my hand, I can see love but love cannot see me. Ans.—A dog's skin made into a rug; his name was Love.

Hoping the w.-p. b. is not hungry. ORAL J. FINIGAN, (Age 11.) R. R. No. 1 Sheppardton, Ontario.

Dear Puck and Beavers.—Since I saw the last letter I wrote in print I thought I would try again. It is a long time since I wrote to the Circle, but I have been very busy studying for the entrance. I wrote in Mount Forest on June 20th, 21st and 22nd. The examinations did not seem hard. Four kittens from our school. We have three kittens at the barn; they are very playful. One of them had a green leaf, this morning, playing with it. I like to see them play. This is a terrible war. I hope it will come to an end soon and that no more Canadian Boys will have to go. My older brother has enlisted but has not left yet. He is going to train at Ottawa. I shall close, hoping the w.-p. b. has been killed at the war, as he is forever eating up someone's letters.

Yours truly, RAE HELLYER, Kenilworth, Ont.

Dear Puck and Beavers.—I am a constant reader of your letters. This is my fourth letter to your Circle. They have all been in print. I hope this one will be in print too. You will think I have written enough letters.

Our school fair is held at Petrolia I have carrots and asters this year. Last year I had corn and asters. I always have pretty good success. I made three and a half dollars last year.

Our teacher's name was Katherine McDougal, but she left our school this year. I liked her fine. I go to school nearly every day. I have only missed two days at Sunday School this year. I take music lessons. I like music very well. I have taken twenty two lessons. My favorite pieces I have taken are: "Canadian Patrol," "Midnight Fire Alarm" and "Beautiful Star of Heaven." I also like "Where the River Shannon Flows."

I have four cats; one I call Tiger is the nicest. She is getting old. I never named the other three. Papa gave me two little red calves the same size. We had a new addition built to our house last year, and this year we had our barn shingled. I have spent the most part of my holidays at home this year. I have no brother or sister. I used to have a brother and sister. I have read many books, such as Masterman Ready, Ishmael, and Self Raised, Merchant of Venice, Lena Rivers and many others. We have a Farmer's Club. They got up a social for the Red Cross Fund, but owing to the bad weather it was not such a success as they expected it to be. But they made one hundred and seventy-

eight dollars. One of the members made a merry-go-round and they made twelve dollars on that.

Well Puck, I guess I will close with a riddle.

What three poets would you name if you saw a house burning? Ans.—Dickens, Howet, Burns.

Wishing the Circle every success, I remain a constant member of the Circle.

RUTH ANDERSON.
(Age 11 years, Sr. IV. class.)

Petrolia, R. R. No. 3.

Dear Puck and Beavers.—This is my second letter to your charming Circle. I read all the letters when the paper comes if I am not away. I saw my name in the "Advocate" but did not see my letter. I do not know whether it was in and I did not see it, or whether it was left out. However, I thought I would write again. I tried my entrance examination but have not heard how I got along yet. I am very fond of reading. Some of the books I have read are "The Cricket on the Hearth," "Strong and Steady," "Anne of Green Gables," and many others. I will watch for this letter in print if the hungry w.-p. b. does not get it.

I remain yours truly,
GLADYS MCCLUNG.
R. R. 1, Midland, Ont.

Dear Puck and Beavers.—This is my first letter to the Circle. My father has taken the "Advocate" for about three weeks. He likes it very much. We are always glad when Thursday comes. I was twelve years old the first of this month. I passed in the fourth book in June. I have a pet cat and pet dog. The cat's name is Tiger, and the dog's name is Sport. My dog is a brown one. I live on a farm near Beaton. I have about two miles to go to school. We have one hundred acres of land in our farm. We have a school fair every year. I took eggs this year. I had nine chickens. The fair is generally held at Waterford. I will close with some riddles.

If a colored waiter dropped a plate of turkey, what effect would it have upon the world? Ans.—The downfall of Turkey, the overflow of Greece, the humiliation of Africa and the destruction of China.

Why do the Germans spell culture with the letter K? Ans.—Because Britain has control of the seas (c's).

Who was the first man to answer the Empire's call? Ans.—King George.

Will close wishing much success to the Beaver Circle.

MARGARET ARNOLD.
Waterford, R. R. No. 1.

The Ingle Nook.

(Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month in this Department for answers to questions to appear.)

Unless you are a writer I don't believe you can realize how much we civilians at home have become possessed by the war, and how absolutely it has debarred discussion on a thousand of the topics that were quite in order just a little over three years ago.

This morning, inspired by a very artistic house presided over by a woman who is always faultlessly gowned—the whole at comparatively little expense, too, good taste taking the place of dollars—I wrote an article on clothes and furnishing. But when it was all done I looked at it almost in disgust. To be sure people are not interested in house-furnishings these days, nor in clothes particularly—and if they are they are not the very best kind of people. To be sure no one wants to spend a single dollar in furnishings if it can be avoided an exception to be made, perhaps, in the case of outside house-paint, for paint is protective and preserves the wood. To be sure no one wants to read an article just now that will make her want to spend money for something just pretty. And so, notwithstanding the fact that beautiful things affect character, more or less, the article has been tucked into a pigeon-hole, where it will stay until a real demand for such things arises after the war.

No doubt you have been interested—since food production and conservation

are so much with us these days—in the proposals which have appeared in the newspapers lately for the establishment of food depots along the roads leading to cities, at which farmfolk can sell the products of their farms and gardens to people who care to motor out for them. The idea is that the motor-folk can thus secure things fresh and dainty, at a reasonable price, while the salesfolk, at the same time, will receive a reasonable price for their commodities. It is one solution of the problem of bringing producer and consumer together, and

at a picture of Mme. Botchkarev, leader of the Russian women's battalion which drove the Germans back with such fury that it has since been known as the "Battalion of Death". There were also pictures of some of her "soldiers", sturdy young women in ordinary men's uniform, with their hair clipped so that you could scarcely tell whether they were women or not.

I do not think they wanted to fight—these serious-faced women—but I do think that they saw, as the mutinous men in many of the other battalions



American Boys in Paris. A wounded French poilu and an American flag-bearer try to make each other understand. Note another poilu and his friend examining with curiosity the American knapsack, which is much easier to carry than that of the French.—International Film Service.

cutting out some of the too-often-expensive middlemen. And yet, as one woman who wrote to a Toronto paper well pointed out, the scheme, while good so far as it goes, does the usual thing—helps those in the cities who need it least. For only well-to-do folk, as a rule, can afford automobiles.

Her remarks made me think again of the plan I mooted in these columns months and months ago, viz.: To have stands for farm produce right in the cities,

could not—that if Russia did not win out democracy must fail, and autocracy and privilege must again be reinstated. With them it was a question of the good of the whole mass of the people against the power of the privileged and selfish few. They did not want to see the great mass of the Russian people any longer exploited, used, kept in ignorance as it had been under rule of an autocrat and his clique. They remembered how their brothers and lovers had already



Nurses Who Were Decorated With the Royal Red Cross Insignia at Buckingham Palace. Photo shows them outside the Palace wearing their medals. These women have been nursing the wounded at the front for months, and their work of salvation finds few rewards. Underwood & Underwood.

and community motor trucks, perhaps run by women, to run the things in, a lower price to be charged to all customers who are willing to carry their own parcels than to those who insist on delivery. Perhaps this is not feasible—perhaps it is. Women can do many things in these years of necessity. And that reminds me—

A few moments ago we were looking

all part of the great human melting-pot in which is being worked out some destiny, we know not what. Doubtless some day we shall know, and shall see that in spite of human blunderings and wilfulness—perhaps through them—things had to come right.

Speaking of shoes: Have you noticed, in the papers, that the United States Government, in behalf of economy and the physical fitness of the people, has given notice to the manufacturers that sensible footwear may be demanded of them in the near future? I wonder if it was Hoover who thought of that. If so Hooray, Hoover! For if ever there has been a deformity in dress that has clung to civilized people it has been in the shoes worn by women. Pointed toes and high heels—these have held their place as "correct" as long as most people can remember,—and yet the Lord did not make us with one toe, nor yet with a peg of bone instead of a heel! Of late, however,—perhaps introduced by the running shoes affected by "sports" girls—the English walking-shoe, low in the heel and broad enough for comfort, has been creeping into favor a very little, and if the fervent wishes of a great many people come true, the foreshadowed measure by the U. S. Government will make it universal. A few years of such reasonable legislation would be quite enough to show us the ridiculousness of the present "foot-millinery", with its crop of corns, bunions and callouses, and cure us forever of seeing any beauty in the footwear that causes these things. Behold us, then, ten years hence, looking at one of the shoes now in vogue, in a glass case in a museum. "What perfectly ridiculous things they were!" "How did we ever wear them?" "What fools we were!" "How did we ever think them pretty?"—Are not these the things that we are likely to say?

Now to our flesh-pots again. It seems as if we can't stay away from them during these days of canning and preserving.

A friend of mine this season tried "doing up" black currants and rhubarb together, and the experiment was a complete success, the rhubarb absorbing the flavor and color of the currants very well. It is said that it combines well with almost any other kind of fruit—an idea worth remembering when rhubarb is plentiful and cheap and other fruits are scarce and dear. I suppose it would go well with grapes, when making grape jam. The experiment is at least worth trying.

In September rhubarb is usually good for cooking again, and even when canned by itself may be mixed later with other fruit.

Pickles and Catsups.

Governor's Sauce.—One peck green tomatoes, 3 red peppers, 1 lb. brown sugar, 6 large onions, 1 oz. each of allspice and cinnamon. Slice the tomatoes, sprinkle with salt and let stand over night. In the morning drain and wash in cold water. Chop peppers and onions together, adding the sugar and spices. Add to the tomatoes and cover with vinegar. Put in a granite kettle and cook slowly.

Crisp Cucumbers.—Wash small cucumbers, drain dry and pack in sterilized jars. Cover with boiling vinegar to which has been added a small bit of alum and seal at once. The vinegar may have sugar and spice added to it if liked.

Pickled Onions.—Pour boiling salt water over small white onions. Let stand 24 hours then drain. Pack in sterilized jars and cover with boiling vinegar.

Uncooked Cucumber Relish.—Twelve large cucumbers, 4 large green peppers, 4 large onions, 1 cup horse-radish, 1 cup sugar, 1/2 cup salt, 1 tablespoon mustard seed, 1 teaspoon celery seed, cold vinegar. Pare cucumbers and remove seeds, then put all the vegetables through a chopper. Mix in the salt and let stand over night. In the morning drain and add the chopped horse-radish and other ingredients. Mix with the cold vinegar (best quality), pack in sterilized jars and seal at once.

Pickled Peaches or Pears.—Four lbs. sugar, 1 pint vinegar, 1 tablespoon cloves, 1 tablespoon allspice, stick of cinnamon. Boil ingredients together for 10 minutes before putting in the peaches. Cook as many peaches in this as possible having juice enough to fill up the jars.

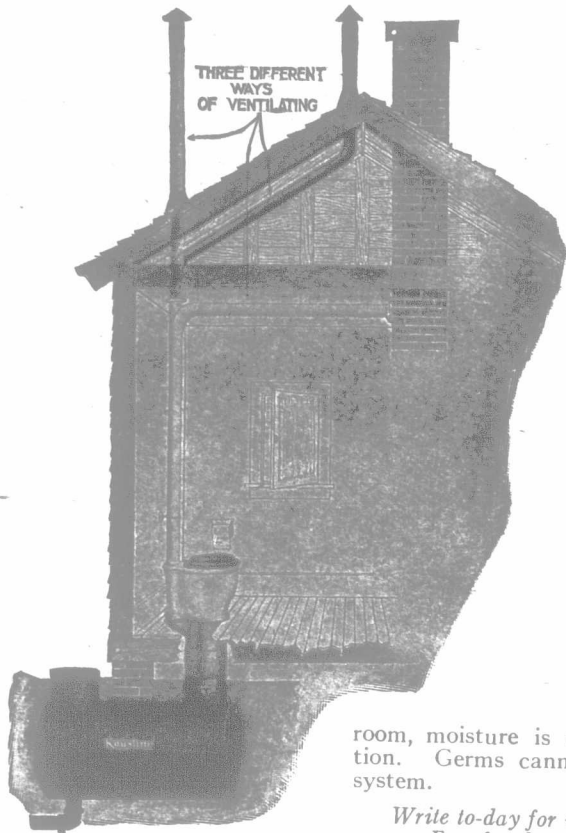
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Tie the spices in a piece of cheesecloth. Pears may be cooked in the same way.

Peach Mangoes.—Four qts. peaches; ½ oz. each of mustard-seed, mace, ginger and celery seed; a few cloves; 2 qts. vinegar. Rub fuzz off firm free-stone peaches, halve and remove pits. Mix the spices and fill cavities from which stones were taken. Fasten the halves of the fruit together with new tooth-picks, or tie them together. Put close together in a stone jar and cover with scalding vinegar. Seal tight and leave a month before using.

Sour Gherkin Pickles.—Wash the cucumbers (select those of small size) and throw them into salted water to remain over night. If two cups of salt be used to six quarts of water, the pickles may be kept in the brine some time. A cup of salt to a gallon of water is a good proportion, when the pickles are to stand in it not more than thirty-six hours. Scrub and wipe the pickles, throw them into an earthen jar with cloves, small red peppers, peppercorns, mace, nasturtium and white mustard seeds. Half a cup of mixed seeds and spices is enough for a gallon of pickles. Scald vinegar and pour over the cucumbers; cover and let stand a week or longer; much depends on the strength of the vinegar. When ready to store, drain off the vinegar, and if strong, use to scald other pickles. Pack the pickles in glass fruit jars; add fresh spices and seeds and scald a fresh supply of vinegar and pour over the pickles in the jars. Let the jars stand on a cloth wrung out of boiling water, while the vinegar is being poured into them. Fill the jars to overflow and cover as in canning fruit. The pickles will keep indefinitely.

Muskmelon Sweet Pickle.—Take hard almost ripe melons. Cut in slices and remove rind and seed. To each quart cold water add ¼ cup salt. Pour this over the melon and leave over night, drain and cook gently in boiling water, cooking only a few pieces at a time and removing each the moment it is tender. For 7 lbs. melon make a syrup of 4 lbs. sugar, 3 cups vinegar, ½ cup cloves and 1 cup cinnamon bark in small pieces. Pour the syrup over the melon and leave over night. In morning drain off the syrup and pack the melon in jars, which have been sterilized. Reduce the syrup by boiling and fill jars.

Catsup.—Catsup may be made of tomatoes, apples, crabapples, plums, peaches, grape-pulp, etc., as follows: Pare the fruit and core it if necessary; boil down with just as little water as possible to a pulp, then add vinegar and spices to taste and a little sugar and salt. When boiled thick enough bottle at once and seal. When preparing grapes the grape-pulp after stewing should be put through a colander before vinegar and spices are added. Many prefer to have the tomatoes also strained to remove seeds.

Mexican Catsup.—One pint green beans 12 onions, 12 ears green corn, 1 quart tomatoes, 2 quarts chopped cabbage, 2 quarts green cucumbers, 2 cups white mustard seed, 1 small cup ground mustard, 2 cups sugar, 3 tablespoons tumeric, 2 tablespoons grated horse-radish, 3 tablespoons celery seed, 2 tablespoons olive oil, 1 tablespoon mace, 1 tablespoon cinnamon, 1 scant tablespoon red pepper. Peel and slice cucumbers, sprinkle with salt and let stand 6 hours; prepare the cabbage in same way. Chop the onions, let stand in boiling water 30 minutes. Chop the tomatoes, beans and corn, scald and drain. Mix all other ingredients. Place in a jar mixed with the vegetables, and cover with boiling vinegar. Set aside, and when cool seal.

Note.—In making all pickles and catsups only good strong vinegar should be used, as otherwise the keeping cannot be guaranteed.

Peaches, Pears and Plums.

Peach Marmalade.—Six pounds peeled and sliced peaches, 4 lbs. sugar, a few peach pits. Mix in a stone jar or granite dish with cover, and bake in a slow oven at least 6 hours, then put in jars and seal. Cover with hot paraffin.

Peach Butter.—The poorer grade peaches will do for this. Cook together cider and sugar, allowing ¾ lb. sugar to 2 qts. cider. When thick add the peach pulp and cook very slowly until thick enough. If liked a little spice may be added.

Peach Pudding.—Butter a baking dish and cover bottom with thin squares of

stale bread, buttered, from which crusts have been removed. On each place half a ripe peach, with the cavity filled with sugar and a bit of butter. Cover the dish and bake. A few minutes before they are done place on top of each half-pear a spoonful of jam or marmalade of any kind. Finish baking. Serve hot or cold with cream.

Grapes and Pears.—Take equal weights of pears and stemmed grapes. Simmer the grapes until soft in just enough water to keep them from burning. Put through a colander. Add the pears, pared, cored and sliced. Let simmer, stirring often, until the pear is tender, then add ¼ cup sugar for each cup fruit and cook as for marmalade.

Pear Chips.—Pare the pears and slice thin. For each pound allow ¼ lb. sugar, ½ oz. green ginger root, scraped or grated, and half a large lemon. Sprinkle the sugar over the pears in layers, squeezing the lemon juice over. The grated lemon rind may also be added if liked. Let stand over night, then heat slowly to boiling, and cook until clear and thick. If preferred the ginger-root may be crushed and cooked with the fruit in a cheesecloth bag.

Peach Betty.—Two cups bread crumbs, 3 cups stewed, sweetened peaches, 3 tablespoons butter. Melt the butter and mix with crumbs. Grease a pudding dish, and put crumbs and sliced peaches in layers to fill, having crumbs on top. Bake in a moderate oven ¼ hour. Serve at once.

To can Peaches or Plums.—One quart peaches, 1 cup sugar, 2 cups water. Have jars perfectly clean (sterilized) and warm. Make a syrup of water and sugar; let boil hard for 5 minutes, then set back on stove to settle, and skim well. Draw forward and when it comes to a boil again put in enough pared and halved peaches to fill the jar. When tender enough pierce easily take the fruit out carefully with a spoon and place in jar. Fill with boiling syrup to overflowing and seal. A good practice when filling jars is to run around the inside with a silver knife dipped in boiling water. This liberates air bubbles and enables the jars to fill better with the hot liquid. Plums may be done the same way.

Canned Pears.—Select firm ripe pears. Scald by dipping in a wire basket 2 or 3 times in boiling water, then dip into cold water. Rub off the skins. Return to cold water to remain until ready to cook. Cook slowly in a syrup made of equal parts water and sugar, then seal while boiling hot as usual. Pears are nicest when cut in halves and cored.

Dried Plums.—Remove pits from ripe plums, and mash with a wooden masher. (They are nicest if scalded and skins removed). Spread on platters, sprinkle with sugar and dry in a slow oven or in a hot sun. When dried it will be like leather. Roll up and store in bags. When needed soak over night in a little water.

Odds and Ends of Cookery.

Pear Salad.—Peel, halve and core mellow pears and chill them as quickly as possible. Pour over them a dressing, also chilled, made of yolks of 3 eggs beaten light, 1 teaspoon sugar, ½ teaspoon salt, ¼ teaspoon white ginger. Beat thoroughly, and add juice of 2 lemons.

Chocolate Custard.—Nice for a warm day, and very nourishing. Four tablespoons grated chocolate, 4 cups milk, 4 eggs, 1 cup sugar, 2 teaspoons vanilla. Put chocolate and 1 cup of the milk in a double boiler and cook until smooth, then add the rest of the milk, and when hot pour it over the sugar which has been mixed with the yolks of the eggs. Return to fire and stir until it begins to thicken then add the vanilla, and when cool enough pour into glasses. Cover with a meringue made of the whites of the eggs beaten very stiff and slightly sweetened.

Blueberry Pie.—Two egg-yolks, 1 tablespoon lemon juice, 2 cups stewed or canned blueberries, 1 scant cup sugar, 2 tablespoons flour, ¼ teaspoon salt. Beat the yolks and stir in the lemon juice and berries. Sift together the sugar, flour and salt, and stir into the blueberry mixture. Turn into a pie-plate lined with pastry. Bake about 25 minutes. When cooled a little cover with a meringue made of the whites of the eggs beaten stiff with a little sugar, and return to

the oven to cook the meringue, about 10 minutes.

Fried Cucumbers.—Peel the cucumbers and drop them into boiling milk and water seasoned with a little onion. Let cook several minutes, but not till tender. Drain and when cold slice about 1/4 inch thick. Dip in beaten egg then in crumbs and fry in deep hot fat. Drain and serve with mashed potatoes. Another way is to slice the cucumbers when raw, dip in egg and crumbs and fry.

Creamed Cucumbers.—Slice 3 cucumbers and mix with 3 sweet peppers minced fine if you can get them. Cover with boiling water. Add 1 tablespoon butter, and salt and pepper to taste. Cook, uncovered, for 20 minutes, letting the water cook away. Place on buttered toast, cover with hot milk sauce and serve.

Japanese Boiled Cucumbers.—Peel cucumbers and boil till tender in fast boiling water to which a little salt has been added. When done split open and put on buttered toast, with a bit of butter and sprinkling of salt and pepper on each half cucumber.

Baked Eggplant with Cheese.—Cover the eggplant fruit with boiling water and let stand 10 minutes. Drain, peel, and slice them. Cut each slice into quarters, season with salt and pepper, and fry a few minutes, then put into a buttered baking-dish in layers, covering each layer with a little grated cheese and a sauce made by cooking together until smooth 1 tablespoon each of butter and four and 1 1/2 cups milk. Have cheese and a few bread crumbs on top, dot with butter and bake 20 minutes.

Another.—Bake an eggplant whole until a fork will pierce the skin easily. Then peel and mash. Put the pulp into a pan with a tablespoon of melted butter and seasoning to taste, and cook until thick. Arrange on a hot plate in a mound, and surround with sliced hard-boiled egg.

Canned Squash.—This recipe is given by "American Cookery". Cut the squash in 2 or 3 pieces and take out seeds. Cook by steaming in the shell, the edges of the shell turned downwards to drip surplus moisture out. When done scrape the pulp out and put it through a potato-ricer, then pack solid in sterilized jars, packing it in with a sterilized silver-plated knife. Set on a rack in a wash-boiler, putting the lids on loose and rings also in boiling water to sterilize. Cover boiler and cook 1 hour. Fill to overflow with boiling water as necessary. Adjust the rubber rings dipped in boiling water, set the sterilized covers in place, partially fasten them and cook 20 minutes longer. Then remove and seal at once.

The Scrap Bag.

Yellowed Clothes.

When white clothes have become yellowed, as they frequently do in summer when wet with perspiration, give them a boiling and hang, very wet, in bright sunshine. Wet them two or three times and hang out again, dripping, to dry in the sun. Bleaching only goes on while material is wet. Sometimes one hears people talking of leaving things out for the dew to bleach. There is no magical quality in the dew; it is simply water—condensed steam—and a good dripping in water from the pump will do quite as well. Never wring white clothes much before putting them on the line. The wetter they are the better, as it will take longer for them to dry and so afford more time for the bleaching process.

Look to the Cellar.

Do not neglect to get the root-cellar in good shape before winter sets in. It should be clean, airy and frost-proof, yet cold enough to prevent the growth of bacteria. Provide distinctly separate compartments for apples, potatoes and other vegetables. Canned fruit should be kept in a cupboard with close wooden doors, so that no light can enter to bleach the fruit.

Save Flower Seed.

Don't neglect to save your flower seed this fall, for it may be quite expensive in the spring. Label the packages and keep dry.

Keeping Eggplant.

The fruit of the eggplant may be



CROWN-BRAND CORN SYRUP

Children prefer it to the most expensive butter. Why not save money by using more of this syrup?

In 2, 5, 10 and 20 pound tins—3 lb. Glass Jars.

Write for free Cook Book.

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A beautifully illustrated Fur Style Book—giving advance information on furs and fur fashions and containing 125 illustrations of up-to-date Furs and Fur Garments—All these illustrations are photographs of living people—thus showing how the Furs REALLY appear, it shows Furs for every member of the family. Don't fail to send for this book TO-DAY—it is now going to press and will be mailed as requests are received. HALLAM'S 1917-18 FUR STYLE BOOK



1506

No matter where you live, you can obtain the latest styles and the highest quality in Fur sets or garments from Hallam's by mail. All Hallam garments are high quality Furs—yet can be obtained by you direct by mail at lower prices than elsewhere for the same quality—every Hallam garment is guaranteed.

Why We Can Sell at Such Low Prices

Because, in the first place, we buy our skins direct from the Trapper, and sell direct to you for cash, saving you a great share of the middlemen's profits—high store rent—bad accounts—salesman's salaries. Then you are sure of satisfaction when you buy by mail from Hallam. You see the articles in your own home and can examine them without interference—if the goods do not please YOU in any way—you can simply send them back AT OUR EXPENSE, and we will cheerfully return your money—you are not out one cent—we are thus compelled to give extra good value as we cannot afford to have goods returned. The articles illustrated in this advertisement are fair samples of Hallam's great values and will be sent promptly on receipt of price.

- 1506. Driving Coat of Fine Muskrat. 45 inch length, beautifully designed. Skins are of fine quality, even, dark colors, carefully matched, and workmanship is faultless. Lined with heavy guaranteed brown satin—new style collar, which can be worn as a high Chin-chin or flat as in small illustration. Finished at waist line with half belt. In sizes 32 to 42, bust. \$75.00, delivered to you.
- 1508. Muff to match in new melon shape (as illustrated), or in pillow style. \$11.50, delivered to you.
- 1507. Hat to match, silk lined. \$7.50, delivered to you.

- 1686. Handsome Manchurian Wolf Set. Newest design, made from fine, jet black silky skins. The large stols is in two skin style, wide across the back and shoulders—trimmed with heads, tails and paws. Muff is large and comfortable, made over soft down bed—has wrist cord and is trimmed with head and tail—lined with corded silk poplin. Exceptional value. \$13.50 per set, delivered to you.

Don't forget to send for Hallam's Style Book to-day—it's FREE—Address as below, in full, please.

John Hallam Limited

206 Hallam Building TORONTO



The Heart of a Grinder

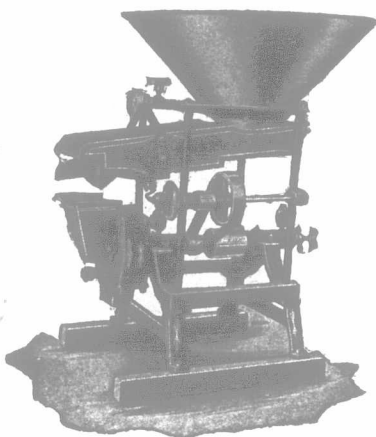
Where is the heart of a grinder? It is undoubtedly at the grinding plates. They do the work. The quality and the quantity of the grit both depend on the grinding plates and their construction.

We have been manufacturing grinders and nothing else for thirty years, and have learned how to make a grinding plate that is not equalled. Send for interesting booklet on "Vessot" Grinders and "S. V." Plates—to-day.

S. VESSOT & CO.

Sole Manufacturers JOLIETTE, QUE. Sold by INTERNATIONAL HARVESTER CO. OF CANADA, LIMITED

Branches:—Calgary, Edmonton, Lethbridge, Estevan, North Battleford, Regina, Saskatoon, Yorkton, Brandon, Winnipeg, London, Hamilton, Ottawa, Montreal, Quebec, St. John.



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"1900" Gravity Washer

Sent free for one month's trial. Write for particulars. "1900" WASHER COMPANY 357 YONGE ST., TORONTO, ONT. (Factory, 79-81 Portland St., Toronto)

kept until the end of November as follows: Select fruit with unbroken skin, dip the broken parts of the stem into melted paraffin and enclose each fruit in a sound paper bag. Hang in a cool dry place until needed. It would be interesting to know how long the fruit will keep if covered completely with melted paraffin. This might be worth experiment.

Making a Broom Last.

When brooms are 75 cents and \$1.00 each it makes making them last look important. After each using dip in cold water and then rest it on two horizontal supports (long nails driven in a shed wall will do) until dry. As all brooms have a tendency to grow shorter on one side hang the short side down. The weight of the dampness will tend to keep the broom in proper shape.

Old Bedspreads.

Make old white bedspreads into bath towels, hemming them with strong threads. From even the most worn places wash-cloths may often be cut.

1849 1917



18 Years
Older Than
Confederation

When you purchase such a life-time gift for your home as a piano, you do not select it because the outside case is attractive—it is MUSIC which you are buying, and you want to know that the firm making the piano you select, has had the experience necessary to build a piano which will "Retain Its Tone" and "Last a Lifetime."

The makers of the famous

Williams Piano
New Scale
ENDORSED BY GREAT MUSICIANS

are the oldest makers in Canada.

For over half a century Canada's brains and expert workmanship have striven to produce an instrument of goodness which will "last a lifetime."

If you are coming to the Exhibition, look for the Williams exhibit in the Manufacturers' Building.

Winter is coming and you will want music to cheer your home.

(Send to-night for beautiful portfolio of Exhibition models)

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World's Greatest
ANNUAL EXHIBITION
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THE CONVENIENT ROUTE
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While attending the exhibition, make this office your headquarters.
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Don't put your money into any piano until you have fully investigated the

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20th CENTURY PIANO—known as
"Canada's Biggest Piano Value"

Write Dept. 18 for free catalogue "T".

THE SHERLOCK-MANNING PIANO CO.
London, (No street address necessary) Canada

When writing please mention Advocate

Current Events.

Controller Hanna has declared an embargo on the use of canned corn, peas and tomatoes until October 15th.

On August 22 the Canadian Military Hospital, Chatham House, near Ramsgate, Eng., was wrecked by German air-raid. As the patients were nearly all removed only one man was killed, although many were injured, five seriously.

The United States has made another loan of \$50,000,000 to Great Britain, and another of \$100,000,000 to the Russian Democracy in which the U. S. Government still has confidence.

By the disastrous fire which has been raging in Salonika 60,000 people have been rendered homeless. All the stores of the Serbian Relief Fund were in the burned area.

United States Food Controller Hoover has announced that all distilling of spirituous liquors for beverage purposes must stop in the United States on Sept. 8, after which time the distillers must have no stores of wheat, corn, rye or barley on hand.

The British Labor Conference decided to send delegates to the Peace Conference which is to be held in Stockholm.

The most startling news of the week is the advance of Von Hindenburg's troops on Riga, 375 miles from Petrograd, a proximity that may necessitate the removal of the Government to Moscow. . . . Upon the west front terrific fighting has occurred all along the line, the British at Ypres, Canadians at Lens, and French at Verdun, where the French scored a smashing victory on August 24, capturing Hill 204, the last remaining important stronghold of the Germans at that place. . . . From the Italians, too, comes good news, General Cadorna's advance on the Isonzo still proving victorious, with the capture of 20,000 Austrians and 60 guns up to August 24. . . . In Mesopotamia the British have renewed their offensive, and have taken the town of Sheraban, northeast of Bagdad. . . . There is little other war news except that China has officially declared war upon the Teutons.

The Dollar Chain

A fund maintained by readers of The Farmer's Advocate and Home Magazine for the soldiers and all who are suffering because of the war.

Contributions from Aug. 17 to Aug. 24.—Mrs. Thomson, Essex, Ont., \$1.65; Wallaceburg Women's Institute, per Mrs. Curtis, R. 2, Wallaceburg, for trench hospitals, \$33.50.

Amount previously acknowledged \$4,837.90

Total to Aug. 24 \$4,873.05

Kindly address contributions to The Farmer's Advocate and Home Magazine, London, Ont.

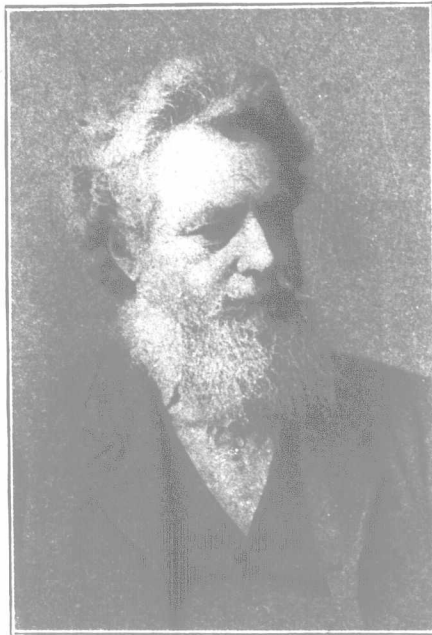
A Message to "The Farmer's Advocate" From Watford, Herts.

(Forwarded to the Farmer's Advocate by H. A. B.)

In the "Farmer's Advocate", I noticed a few weeks back that the lady who conducts the "Ingle Nook" mentioned William Morris the Author of the Earthly Paradise, so I am sending his portrait for her acceptance should you happen to see her. I knew him well and can assure you that it is a first-class portrait. I also knew men who were employed in his workshops, where, under his superintendence, they executed those beautiful designs which added so much beauty to the English homes during the closing years of the 19th Century. He was one of the Leaders of Modern Socialism and spent his life in striving to improve the condition of the artisan class and so bring light and learning into the dark homes of the common people—and so,

as it is reported in the Gospels concerning our Lord, "they heard him gladly." —I know that for a fact, W. Morris was loved by his workpeople and they gave him willingly of their best.

We have passed through the longest and the dreariest of all the winters that I, in my long life, remember. Of course, the war added greatly to the gloom. Watford is not the bright cheerful place it was in the early days of the war, when the new armies were being formed and thousands of England's best manhood were congregated in our midst—Men full of hope. In those days the soldiers were billeted in the homes of the people for at least 6 months at a time and the people got to know and love them. When at last, their training over, the various battalions left for the front, thousands gave them a good send off—most feeling not that they were parting with chance acquaintances but with men of their own flesh and blood. Constant communications passed between them, from France, Flanders, Turkey and Egypt and news of them were eagerly watched for in the daily papers. Of those who shared our home, one was killed at the battle of Loos, another became a prisoner in Germany; the two of the



William Morris.

London Scottish both came home seriously wounded, at the battle of Ypres, where the regiment lost quite two-thirds of its entire force. One recovered, and returned to the front, was again wounded and his feet frost bitten, the other was invalided out of the army altogether. Some of the Bedfords we have lost sight of altogether, and the last we heard of the Norfolks was that they were in Egypt preparing to take part in the Mesopotamia campaign. As time went on and the voluntary armies gave place to the conscripts, the new regulations separated the intimacy between the men and the townspeople. The soldiers were no longer billeted on the inhabitants, but housed in the schools and public buildings, or in empty houses, in huts built in the park or on fields. So now, the soldiers, their drills and movements are quite outside and cease to be of personal interest. They go away at night in drafts a few at a time and are heard of no more. As more and more men were called for first one was taken and then another, until at last there is scarcely a house that has not lost a son, a husband or a brother. These men have to report themselves and are sent to various depots far from their own homes, trained quickly and hurried off with scant leave to take their part in "The Great Push".

In our road and others, shrines have been erected giving the names of those called up and asking for the prayers of the people on their behalf.

This road, borders on the country district and was surrounded on all sides by vacant plots of land. These have now all been ploughed over, cut up into allotments of 10 poles, and given over to the people for cultivation. People are busy everywhere, men, women and even children, helping to provide food for the days to come.

I do not think that our correspondence always comes safely. The last letter I had from you took over 3 weeks in transit—judging by the postmarks on

the envelope. The Farmer's Advocate has come all right, but some times in batches of 3 or 4 at other times singly. I feel very grateful to you for having them sent. I enjoy the papers entitled Hope's Quiet Hour.—J. B. GROVES.
[Junia thanks Mr. Groves very much for the portrait and mention of William Morris.]

On Trek.

BY DAN MCARTHUR.

Sunshine is always pleasant; in England it is Nature's choicest gift. So the battery soaked in it joyfully, as we clanked down the long winding road from Surrey into West Sussex, for Canadians are better friends with Old Sol than Britons. Even the major, at the head of the column, was under its influence, and whistled softly to himself, curbing back his charger to suit the pace of the toiling gun-teams. The country stretched away like a great park, the luxuriant green of the downs and roadsides relieved by the lilacs, chestnuts and thorns. And the downs ran into the hills, which melted away in the thin, blue haze which always hangs over the land. It is a country of great estates, old houses, and occasional clean little villages, with a "Red Lion", "Half-moon" or "Dog and Pheasant" at every corner. This was all new and interesting to new-world eyes, and the boys relented a little toward the old land that had been so cold and dismal in the winter. A touch of spring sunshine will do more to improve imperial relations than all the speeches in parliament.

Every hour we halted for a breathing spell, and the hungry horses gorged themselves on the tender young grass, just like their civilian brothers across the fence. Conscripts into man's wars, their allowance is none too large; but Nature is no rationer, and her only food controller is the elements. So they nibbled away contentedly enough, while the men stretched themselves and got out their pipes and cigarettes. Then the whistle would sound to mount, and we scrambled ungracefully into our saddles. Ungracefully, because there is a rolled greatcoat on the pommel, two blankets rolled on the cante and a dozen odds and ends of equipment fastened all over. "Battery, Walk, March!" We start on our way again, and think of nothing but the beauty of England in May and what the cook has hidden in the "dixies" for dinner.

The captain rode ahead to pick out a good place to stop for noon, and luck was with him. A little lane branched off from the main road, with several rods of good grass between it and the fence. At the far end was a pond, so that it made an ideal place to bivouac. Picketing ropes were soon stretched between the limbers, and the horses unsaddled and tied up. Stables were carried on for an hour; the horses were watered, groomed and fed their oats and hay. Despite the long walk, they were full of life, and rolled and kicked and bit it in a way that would drive any unfortunate picquet crazy. After stables turned out we were free to lie in the shade till the time came to harness up. One of the boys went out on a little foraging expedition of his own ("issued" grub always being uncertain.) A fine old country house stood at the end of our lane. He rapped on the door, and asked whether he could buy a few eggs. "Just a minute" said the maid, and disappeared. In a moment she returned, with a bag of eggs—"with her Ladyship's compliments." Our forager met her Ladyship in the garden, and took occasion to thank her; later she brought out smokes for the whole battery. Those eggs were of the best—I know, for I ate two. More than once the faithful hen has come to our rescue on bivouacs, but to-day the bill-of-fare was good: cold roast beef, bread and margarine and tea. A little nap after dinner and two o'clock was around, and time to move off.

The afternoon was like the morning, only a trifle warmer. The hills grew higher and the cottages scarcer after we had crossed into West Essex. Goats, horned and bearded, eyed us with stony indifference as we passed by. Cultivated land gave place to meadows and pasture. A big stone wall came in from the fields and ran beside the road. This wall is the longest in England—fifteen miles—and enclosed Lord Leconfield's deer park. A fine, solid wall, nicely rounded on top, with enough stone and mortar in

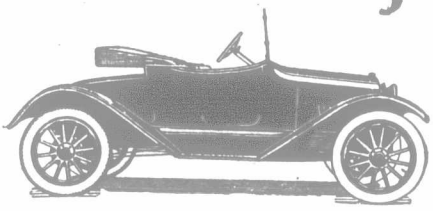
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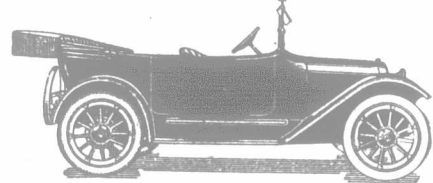


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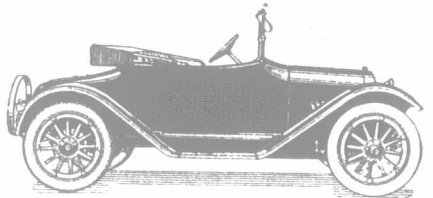
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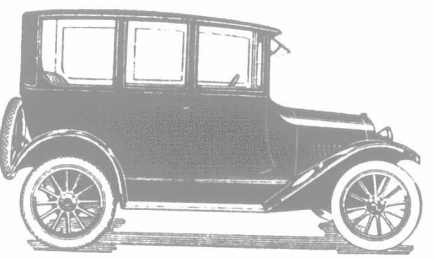
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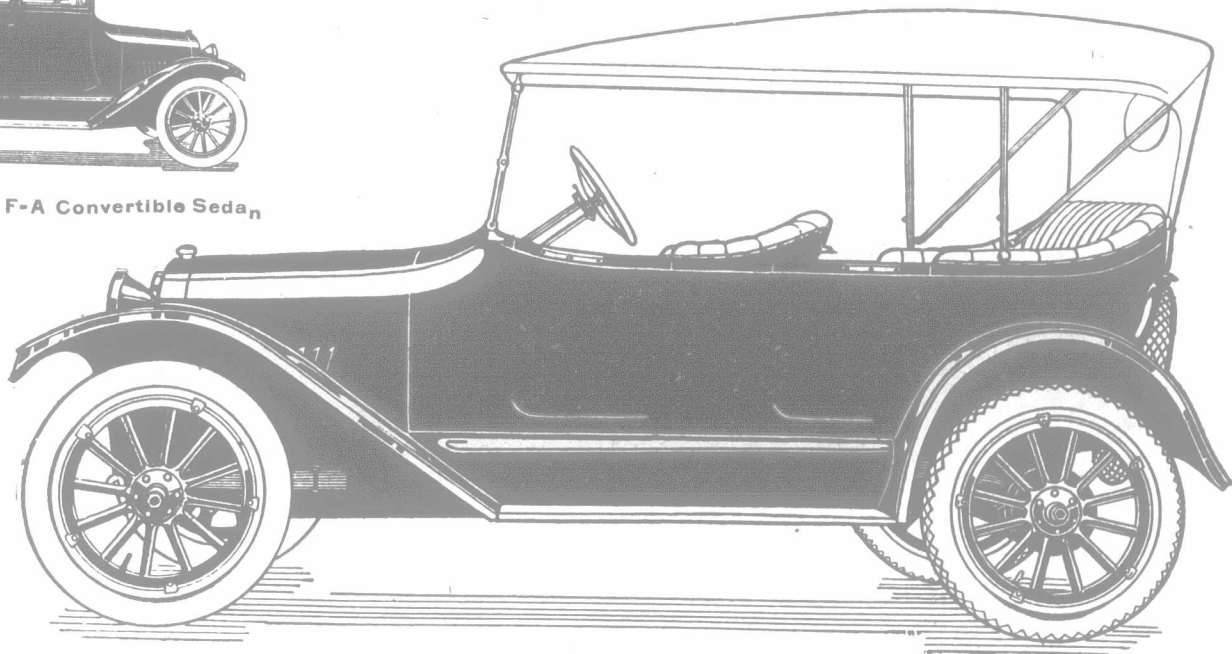
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CHEVROLET MOTOR COMPANY of CANADA, LIMITED

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it to build homes for a hundred cottagers. But homes would spoil my Lord's deer park. It is a beautiful park, rolling and green, with many a stately old oak for shade. There is even an artificial lake, for the deer to drink in. Happy deer! You shall live and die undisturbed by man's follies, though Englishmen may starve for them! "Twice five miles of fertile land"—a home for my Lord and his thousand deer, while its former tenants fight Nature for their homes in Canada and Australia. We followed the wall till we came to

Pet-worth. This town nestles high up among the hills, looking as though it were taken from one of Albrecht Durer's engravings. Although surrounded by lovely landscapes on every side the town itself was almost destitute of green. Old stone houses, stone streets, and the famous wall rising up to the forbidding height of twenty feet. In the centre was a venerable church, whose slender spire rose high above everything else. We passed on through Petworth into the country again, till we came to the River Rother, which was our destination.

Here we turned into a grassy meadow, and got ready to bivouac for the night. After stables were over, all but the picquet were granted leave till midnight. The majority did not wait for supper, but washed in the stream and set out for Petworth, in high hopes of a good time. But they were doomed to disappointment if men ever were. A more deserted place I never saw than Petworth. I strolled through every street, and outside of knots of dejected-looking artillerymen, I met no one. A few frightened faces peered at us from windows, only to

fade away. This mystery was explained later. There had been a parish entertainment in the afternoon, and the mayor had got word that a battery of Canadians would camp nearby for the night. So the mayor addressed the assembled Petworthians as follows: "I have been told that some Canadians are camping near here to-night. Therefore I warn you to lock yourselves indoors for very few Canadians can be trusted!" And they believed him, these good sixteenth century folk, who wished no truck or trade with wild Canadians from so far away. But

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Hamilton, Ont. Winnipeg, Man. LIMITED

MANUFACTURERS OF

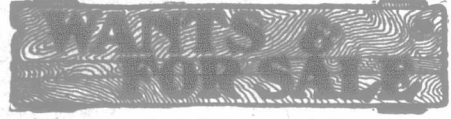
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Our herd of Scotch Shorthorns represents Orange Blossoms, Kilblean Beauties, Matchless, Mysies, Missies, Clementinas, etc., and is headed by the Watt-Stamford bull, Victor Stamford =95959=, a Toronto winner. Present offering—one roan Orange Blossom bull, 12 months old (a show animal) also young bulls and several choice cows and heifers.

Geo. D. Fletcher, Erin, Ont., R. R. 1, Erin Sta., C. P. R., L-D. Phone.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

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SIBERIAN FUR FARM, HAMILTON, CAN-ADA—Breeds Foxes, Marten, Mink, Ermine, Skunks and Black Siberian Hares. Information and price list free. Write address plainly.

WANTED—MARRIED MAN BY THE YEAR for dairy farm; good house furnished, would require man accustomed to handling horses and assist with milking; wages paid monthly. C. V. Robbins, Bell Phone, Wellandport, Ont.

WANTED—BY EXPERIENCED CANADIAN farmer, a position working and managing a stock or dairy farm. Life experience; good milker by hand or machine; free in October; state terms. Box "R," Farmer's Advocate, London, Ont.

Shorthorns—Pail-fillers for sale. Young bull and heifers out of high-record cows. A few young cows and bulls with extra good breeding and quality.

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The tone-control pipes of the Phonola absorb all harsh, irritating sounds and present the artist's fancy to the ear sweet and full. Priced from \$15 to \$250. Write to-day for free catalogue and name of local dealer. Agents wanted in unrepresented territory.

The Pollock Mfg. Co., Ltd., Kitchener, Ont.

say, how that mayor's ears must have burned that night!

We slept well in spite of our terrible reputation, and were ready to start home by half-past eight the next morning. The day was just as fine as before. We passed through Petworth quietly, for His Worship was evidently in hiding. Farewell, Petworth! A heart of stone set in the midst of sunny Sussex—"where every prospect pleases, and only the Canadians are vile"—as the mayor would say.

It is only just to remark, in concluding, that this medieval spirit is in nowise typical of English hospitality; the people near the camp have been unfailingly generous and thoughtful, and every Canadian soldier will remember them with gratitude in his heart.

The International Prize List Ready.

Secretary B. H. Heide, of the International Live Stock Exposition, Union Stock Yards, Chicago, informs us that the Premium List of the 1917 exposition is now ready for distribution, and may be had on application. Substantial increases in the prizes offered have been made in several departments.



Residence at 295 Clemow Ave., Ottawa

Bishopric Stucco Board used on all interior and exterior walls, plastered inside, brick veneer first floor and Stucco second floor outside. Good looks—comfort—lasting—economy. You get them all when you build with

BISHOPRIC STUCCO BOARD

As a background for Stucco on outside walls, or plaster on inside walls and ceilings, **Bishopric Stucco Board** is not only the **BEST**—it is also the **CHEAPEST**.

All dampness is kept out by the thick layer of asphalt mastic—the Stucco or Plaster is held for keeps by the dovetailed lath—while the sized sulphide fibreboard holds the material firmly together and acts as an additional heat insulator. The result is a house that is wonderfully warm, dry and comfortable—substantial looking and durable—surprisingly economical—and never in need of paint.

If your local lumber dealer doesn't carry **Bishopric Stucco Board**, write us for sample, booklet and full information.

Bishopric Wall Board Company, Limited

529P Bank Street, Ottawa, Ont.

See Bishopric Stucco Board at Toronto, London and Ottawa Exhibitions

The Canadian Poultrymen's Belgian Relief Association are going to hold a sale of pure-bred poultry at the Canada National Exhibition, Toronto, on Labor Day, September 3, 1917.

Any Ontario breeders who have not already donated still have time to help along this good work by sending their donations to Raymond E. Bruton, R. R. No. 2, Hamilton, Ont., who will forward shipping instructions and tags.

This work is authorized by the Allies Agricultural Relief Committee, of which Dr. Robertson, of Ottawa, is Chairman,

and is backed by the Dominion and Allied Governments.

All proceeds will go for the relief of wives and families of Belgian poultrymen in the devastated regions.

This will also be a chance for breeders to buy stock from some of the best flocks in Ontario and Quebec.

Questions and Answers. Miscellaneous.

Devolution of Estate.

A wife dies without a will and leaves a husband, three daughters, and one son. If the family are of age can each get a share of the property?

2. What part of the property belongs to the father and what part to the girls?
 3. Has the boy got a right to more than each one of the girls?
 4. If the girls are of age and the boy is nineteen can the girls get their share and leave the boy without any?
- Oyebec. H. H. H.
 Ans.—1. Yes.
 2. One-third to the father and one-fourth of two-thirds to each of the girls.
 3. No.
 4. No.

Markets

Continued from page 1355

supplies from Northern European ports are cut off to a considerable extent. Quotations here for choicest creamery were 42c. to 42½c., while fine grades brought about 1c. less. Good to fine dairies were 37c. to 38c., and lower grades 36c.

Cheese.—Quotations altered slightly during the week. The commission paid 21¾c. for No. 1; 21¼c. for No. 2; 20¾c. for No. 3, and 20¼c. for lower grades.

Grain.—The demand for oats was good, and sales of No. 2 Canadian Western took place at 74c. to 75c.; No. 3 and extra No. 1 feed, 73c. to 74c.; No. 1 feed, 72c. to 73c.; No. 2 feed, 70c. to 71c. per bushel, ex-store. Canadian 5-lb. picker beans, \$9.50 to \$9.75; 3-lb. pickers, \$10.25 to \$10.50; Rangoons, \$9; yellow eyes, \$8.25; Japans, \$7.75.

Flour.—Prices were unchanged at \$13 per barrel in bags, for Manitoba first patents; \$12.50 for seconds, and \$12 for strong bakers'. Ontario 90 per cent. patents were \$12.40 to \$12.55 per barrel, in wood, and \$6 to \$6.25 per bag.

Millfeed.—The market continued firm, with bran holding at \$35 to \$37 per ton; shorts, \$40 to \$43; middlings, \$48 to \$50; mixed mouille, \$55 to \$56, and pure grain mouille, \$60 to \$61 per ton, including bags.

Baled Hay.—The market was steady with No. 2 old crop at \$9.50 to \$10; No. 3, \$8 to \$9; \$6 to \$7.50 for lower grades.

Hides.—The hide market was unchanged save for an advance of 15c. in lamb skins, bringing the price to \$1.90 each. Calf skins steady at 38c. and 40c. per lb. Beef hides at 25c., 26c. and 27c. Horse hides, \$7 each; rough tallow, 3c. to 6c. per lb. Rendered, 11c. to 13c. per lb.

Cheese Markets.

Cowansville, Que., 20 13-16c.; St. Hyacinthe, 21¼c.; Belleville, 21¼c. and

21 5-16c.; London, 21c.; Montreal, finest westerns, 21¾c.; finest easterns, 21¾c.; New York, specials, 23¾c. to 24c.; average 23c. to 23½c.

Chicago.

Cattle.—Beeves, \$8.25 to \$15.50; western steers, \$7 to \$12.40; stockers and feeders, \$6.10 to \$9.25; cows and heifers, \$4.65 to \$13; calves, \$11.50 to \$16.

Hogs.—Light, \$15.50 to \$17.15; mixed, \$15.60 to \$17.25; heavy, \$15.50 to \$17.50; rough, \$15.50 to \$15.75; pigs, \$10.50 to \$14.

Sheep.—Lambs, native, \$10.50 to \$15.75.

Flustered.

The other day a pretty young matron, swathed in a veil, entered a car, already nearly full of passengers, where she expected to join her husband, and possibly to find her sister, also. The car was dim, and she had not yet put up her veil. She dropped into the seat beside a familiar-looking figure, and entertained her neighbors by exclaiming, as she did so: "Oh, here you are, dear!"

"No, ma'am, I ain't; I'm somebody else," declared her startled seatmate, turning.

"Do excuse me!" cried the lady, hastily. "Of course I can see now you're just a man, but I thought for a moment you were my husband."

"Is he a lady, ma'am? Because if he ain't, that's likely him beckonin' across the aisle, and if he is, that's her flourishin' a handkerchief three seats down. Seems as if one of 'em must be the person you're lookin' for."

"Oh, thank you! They both are!"

A funnier case of fluster occurred lately at a waiting-station, where a tall young lady, wearing a rain-coat of indistinctive cut and color and a heavy veil, and bearing as it chanced, the commonest of feminine names and surnames, and therefore the combination most likely to make trouble, was greeted by a strange young man, who suddenly laid a hand on her arm, exclaiming:

"Why, Mary Smith! You darling girl!"

Greatly startled, the girl accosted, not quite sure whether she were the victim of an error or an impertinence, endeavored by disclaiming the epithet while acknowledging the name, to put the effusive youth in his proper place; but flurried nerves betrayed her tongue. To her horror, she heard herself announce, in tones of chilling dignity, "I am certainly a darling girl, sir, but I am not Mary Smith."

Hastily endeavoring to correct this statement, she only succeeded in turning it round.

"I am not Mary Smith," she stated icily, "but I am certainly a darling girl." Before she could entangle herself further the young man remarked, politely, "Both facts are quite apparent, madam, and I beg your pardon. I mistook you for my cousin, Mary Smith, who is another."

"But the facts are not apparent!" she cried, desperately. "I am Mary Smith, too, and I was trying to say so, only I was so flustered I kept saying something else."

"That is what I supposed," he admitted and he allowed himself a laugh in which she could not help joining.

"Here I was, all alone, with one team—"

"I want to tell you a little incident that occurred in my neighborhood last fall. A certain neighbor was burned out. Your agent called but my neighbor thought the Steel Truss Barn was too expensive so he set about to build a frame barn. He was the most of the winter hauling lumber to two different saw mills with two teams of horses and four men. The roads broke up early; he didn't get the timber home and the upshot is he hasn't built yet. Now, one of his boys is away helping to build a Steel Truss Barn on another farm.

"Here I was all alone with one team and handled the material for my barn. With the high price of labor I should think this is one in favor of the Steel Truss Barn.

"In closing might say that you would be safe in laying plans for a big business as these are certainly the coming thing in barn structure.

"Again wishing you success, I am, Yours truly, Edwin McMillan."

This is the advice this farmer gives us. After seeing our barns, after buying one for his own place, after seeing the neighbors worry with the erection of an old style barn, he assures us that from a farmer's standpoint our business is right. This does us good. We have unbounded faith in the modern barn building ideas we have worked out, but what the practical farmers say really carries more weight. Their approval is what counts.

No Big Gang Needed.

In the first place we save the farmer labor, especially costly expert labor. We save the farmers' wives the nuisance and expense of boarding a gang of men for weeks while a barn is being built. We do away with the old time raising bee and the work it involved.

Here is what some Steel Truss Barn purchasers write us after erecting their barns. One wrote, "A few days and a few men completed the work on our barn. It saved my wife a lot of work. Another thing I liked was that I knew from the start exactly what it was costing me. Your supplying everything did simplify things greatly." Here is the way a St. Thomas farmer put it, "The barn is the best in the neighborhood at considerably less cost than a wooden barn. My contract with you relieved me of all worry." Another, "I consider that I saved \$150.00 in carpenters' wages. There is no need of a raising bee." Read this one, "Your men were only seven days in erecting the barn, and they certainly saved the womenfolk a lot of work."

More Space—No Timbers.

But so far only one side of the question has been considered. Think of the difference between this barn and the ordinary old-style barn built full of heavy timbers. In the Steel Truss Barn the space is wide open. There are no timbers or unnecessary divisions. Nothing in the way of the hayfork when loading or unloading. No need to hoist the loaded fork to the peak before dropping the load into the mow. A farmer may not realize what work this saves until he sees it working in a Steel Truss Barn.

Another farmer writes: "It gives me a lot more room than my old barn which was the same size." Another, "There is more room in it with the same height of posts than in the old frame barn." One man after the second season wrote us about this great advantage saying, "It certainly makes work of mowing away much easier." Read this too, "It is fine working. Can mow away and take out with great comfort." And dozens more of the same kind.

A Cool Barn.

Another thing that farmers have found to their liking was the unusual ventilation. It is cool working in this open building with fresh air constantly circulating through it when doors and windows are open. One man says in his letter, "We found it much cooler working in the Steel Truss Barn within four feet of the roof than out in the fields."

The Staunchest Barn Made.

Farmers now realize that Steel Truss Barns are much stronger than timber or plank frame

barns. One practical farmer writes, "The barn is situated on the highest point around here. We had a wind storm three or four weeks ago which did some damage, unroofing houses and blowing down trees, but it had no effect on the Steel Truss Barn. It is as firm as a rock."

That letter came from an experienced farmer. Another writes, "Since it was erected we have had some heavy storms and it has been thoroughly tried. My barn is in a windy spot, and I am pleased to tell you that it is steadier than any wooden building could be."

He Saw It, too Late.

This barn is worth going a long way to see. The well-known model is still to be seen at Toronto Exhibition. If you have a barn to build do not leave yourself open to the same regrets as a farmer down Malvern way. He had heard a great deal about the fine Steel Truss Barn erected in the neighborhood and went a long way out of his way to see it. The owner of the barn writes of the incident as follows: "He says that he had heard so much about it that he had to see it for himself. He stood and looked at it for about ten minutes without saying a word. I asked him how he liked it, and he said he wished the Steel Truss Barn had been on the market when he built his own barn several years ago. He is a practical farmer and knows a good thing when he sees it."

We Can Help With Your Plans.

Before you undertake the planning of a new barn, why not write to us and let us help you with it. The services of practical barn building experts are at your command. They can lay out a barn for you and tell you every last detail that has to be thought of. They can estimate the cost of it and give you blue prints of as fine a barn as you will ever see. This service to farmers goes free to those who really intend to build. Whether you decide to do business with us or not does not matter, you are invited to consult our architectural department. All letters on the question of barn-building receive prompt and careful attention.

One of the best opportunities you will ever have for examining the Steel Truss Barn and talking to our representatives will be at Toronto Exhibition. Do not miss the Big Fair, and be sure that you see the Model Steel Truss Barn. It stands on the North walk at the commencement of the cattle sheds.

THE METAL SHINGLE & SIDING COMPANY, LIMITED, PRESTON, ONT.

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TORONTO

WINNIPEG

SASKATOON

CALGARY



The Greatest Engine
Value Offered

The new "Z" Engine

1 1/2 H.P.
On Skids With
**BUILT-IN
MAGNETO**

Absolutely the one great, convincing engine value.

**Fairbanks-Morse Quality
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That's the story in a nutshell. This new "Z" Engine puts dependable, efficient, economical "power" within the reach of every farm.

**All Sizes Can Be Shipped Immediately
From Stock.**

Simple—Light Weight—Substantial—Fool-proof Construction—Gun Barrel Cylinder Bore—Leak-proof Compression—Complete with Built-in Magneto. Quick starting even in cold weather. Low first cost—low fuel cost—low maintenance cost. That's the new "Z" engine.

GO TO YOUR DEALER AND See the "Z"

Inspect it. Compare it. Match it point by point. Have him show you the features that make the new "Z" engine the greatest engine value offered. You'll buy it.

The Canadian Fairbanks-Morse Co. Limited

St. John, Montreal, Toronto,
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Calgary, Vancouver.



**F. O. B. Montreal
or Toronto.**

\$65.

3 H. P. \$115.

6 H. P. \$205.

Important Dealer Service

When you buy an engine from your dealer you deal with a local representative of the manufacturers. He shares their responsibility. He stands behind the engine he sells. He's responsible to you. He's at your service to see that you are satisfied. And he's as near you as your telephone any time you want him.

Mutual life companies have no rivals in respect of security and among the best of mutual companies is the **Mutual Life of Canada**

BE SURE AND ASK FOR THE
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Line of WASHERS, CHURNS, BUTTERWORKERS, FOOD CUTTERS, GAS ENGINES, etc. Write for Catalogue.
MAXWELL'S LIMITED, St. Mary's, Ont.

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Samples Free, including Heavy Grades. Also Catalogue of Builders' Bargains such as: Pine Doors \$1.98 Glazed Sash .65 Lead Sash .45 Pure Paint .68
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Calendar from Rev. F. L. Farewell, B.A., Principal, Whitby, Ontario.



Prepare For Fall Crops.

The yield of hay in Eastern Canada for 1916-17 has been extraordinarily heavy. The barns are bulging with it and stacks abound. Much of it will be held over for next year. On account of this surplus, many of the old meadows could and should be utilized for producing grains, such as fall rye and wheat. The world is clamoring for grain.

The land should be ploughed now and a good seed-bed prepared. Timothy seed at the rate of 10 lbs. per acre can be sown with the rye, and clover seed sown in the spring, if it is desired to get the land back into hay. Fall rye is one of the surest of our grain crops, but is usually sown late and put in carelessly on poorly prepared land. If it is given reasonable care and sown early enough, the yield will be much higher, and the crop more profitable. Turn one of those old meadows into a field of fall rye. It can be done now, and it will help win the war.—Commission of Conservation.

The Spice of Life.

A Tall Yarn.—He was describing the privations of a voyage from which he had just returned. "Then," he said, "I went down to the cabin to lunch." "Lunch!" exclaimed one of the hearers. "But you told us there was nothing to eat left on board. What did you have for lunch?" "Oh!" was the reply. "It was a very modest affair—beef, wine, and an egg." "Beef! Where did you get the beef from?" "Oh!" was the reply. "That came from the bulwarks." "And the wine; how about that?" "Oh, that came from the port hole!" "Good; very good! But tell me where did you get the egg?" "Oh, that was the simplest of all!" came the reply. "The captain gave orders for the ship to 'lay to,' and he gave me one." —Philadelphia Ledger.

"Alone of his statesmen and generals he has made no blunders. He stands an unchanging and homely figure in the strife. His throne remains the safest if not, in view of Belgium, the most glorious in Europe. In contrast to the Kaiser's feverish omnipotence, his calm passivity is a steady guidance, if not a wild inspiration to the Empire. . . . George V. has, by his unchanging calm and refusal to bow before fear or imagination proved the fibre which resists the strain in the public mind. It is possible that he has those needful qualities, which could not be expected from a more brilliant sovereign—the qualities of stolid patience and imperturbable phlegm. . . . It is something that an English type of Englishman sits upon the throne in unstable days."—From the End of the Chapter by Shane Leslie.

A correspondent of the "Spectator" directs attention to this striking passage from chapter 59 of "Daniel Deronda," which was written by George Eliot in 1870, and is perhaps her least successful novel—There comes a terrible moment to many souls when the great movements of the world, the larger destinies of mankind which have lain aloof in newspapers and other neglected reading, enter like an earthquake into their own lives—when the slow urgency of growing generations turns into the tread of an invading army or the dire clash of civil war, and grey fathers know nothing to seek for but the corpses of their blooming sons, and girls forget all vanity to make lint and bandages which may serve for the shattered limbs of their betrothed husbands. Then it is as if the Invisible Power that has been the object of lip-worship and lip-resignation became visible, according to the imagery of the Hebrew poet, making the flames his chariot, and riding on the wings of the wind, till the mountains smoke and the plains shudder under the rolling fiery visitation. Often the good cause seems to lie prostrate under the thunder of unrelenting force; the martyrs live reviled, they die, and no angel is seen holding forth the crown and the palm-branch. Then it is that the submission of the soul to the Highest is tested, and even in the eyes of frivolity life looks out from the scene of human struggle with the awful face of duty, and a religion shows itself which is something else than a private consolation.

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The Maytag Company Limited

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Urgently requests every person who is interested in a high grade washing machine, for either hand or power use, to visit the exhibit of the "MAYTAG" Washers at the

Canadian National Exhibition

TORONTO, ONTARIO
August 25 to September 10

A demonstration will be given of the full line of machines, including Multi-Motor, Electric, Power and Hand Washing Machines and Multi-Motor Engines.

Enquiries from Ontario and Eastern Provinces should be addressed to

WHITES LIMITED
COLLINGWOOD
ONTARIO

Milk an Economical and Nutritious Food.

After all, it is not what we make, but what we save that counts; and so it is not so much what we eat, as what we digest and assimilate that counts.

Milk is perhaps the most easily digested of all human foods. It contains all the elements necessary to the life of the young. For adults, it is a most wholesome food; but needs to be combined with other foods in order to get concentration, as well as bulk.

If we are to consider that a man will get all his food value from a single article of food per day, the quantities of any one of the following would be required:

Milk 9½ pounds
Cheese 1½ pounds
Butter 4½ pounds
Oranges 17½ pounds
Lean beef 4½ pounds
Eggs 5 pounds
Oatmeal 1½ pounds
Oysters 13 pounds
Potatoes 10 pounds

Put these amounts of required quantities in values of dollars and cents, and diet for a single day will cost:

Milk at .10 a quart.....46
Cheese at .30 per lb.....45
Butter at .40 per lb.....33
Beef at .25 per lb.....1.12
Eggs at .35 per doz.....1.13
Oatmeal at .04 per lb......06
Oysters at .60 per qt..... 3.60
Potatoes at .06 per lb......60

From these figures, we cannot help but agree with authorities who have made the statements that people can afford to pay 20c. a quart for milk, if they can pay 25c. a pound for beef.

In these days of high prices we should realize the important food value, the deliciousness and great economy of dairy products.—News Notes, Colorado Agricultural College.

Bees Do Their Bit.

The secretary of the Ontario Beekeepers Association reports that the Ontario honey crop is almost an average one despite the unfavorable season. The Crop Report Committee of the Association met recently and reported as follows: Five hundred beekeepers from all parts of the province reported an average of 51.6 pounds per colony which is about the average reported from year to year. While most of the South Western counties have had short crops, the Eastern counties have done better than usual. The market has been bare of honey for several months however, all the necessities of life have advanced and beekeepers expect some increase in price, although the advance over late winter prices recommended is slight.

Best quality light extracted, whole, 14c. to 16c. per lb.; best quality light extracted, retail, 17½c. to 20c. per lb.; best quality comb, wholesale, \$2.00 to \$3.25 per dozen; No. 2 comb, wholesale, \$2.00 to \$2.50 per dozen.

These prices are being paid at the present time in Ontario, and United States' prices have advanced in even greater proportion, Surplus honey from Western States is going direct to Europe for use by the armies of the allies, leaving a greater shortage of honey on the American Continent than ever before.

Beekeepers are cautioned not to sell second grade honey for table use, but to sell it to biscuit manufacturers. The prices recommended are f. o. b. in 60 lb., 10 lb. and 5 lb. tins, the former being net weight, the latter being gross weight. The lower prices should be quoted to wholesale and commission men and the higher wholesale price to retailers. The size of the order and style of package should be taken into account in determining the retail price.

"George" Washington must have had a wonderful memory, father," said the bright boy. "Why so, my son?" asked the father, who was showing his son around. "Because everywhere I go I see monuments to his memory."

Away in the Lead

BECAUSE OF ITS NEW PRINCIPLES

In the HOAG Guaranteed Oil Engine, starting is effected by means of heat generated in cylinder, and the maximum of power is delivered on a minimum of fuel—low-grade oil, at that.

This engine is the sensation of the engine world. It has automatically taken the lead over all others which operate on old-time principles, wasteful of fuel and never fully efficient. In the

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no batteries, no magnetos, no carburetors, no wires, no spark plugs are required.

Since it is just at these points that most gasoline engine troubles occur, it is plain that the HOAG is as nearly trouble-proof as an engine can be. Furthermore, the HOAG is so surely and genuinely a real oil engine that it will not run on gasoline, unlike so many of the so-called oil engines, which are usually gasoline outfits under a disguise.

The saving in fuel alone will pay for a HOAG in a short time, to say nothing of the saving in time, trouble and money wasted in forever "fixing" electric ignition devices.

Our Guarantee Says This:

"If a HOAG Oil Engine does not do satisfactory work, your money will be refunded on return of engine within a year from the day you bought."

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Back To The Land

You are planning to get there—why not get there "right"? Success is much easier when you start that way.

Beef raising is the branch of farming that requires the least labor and offers the best opportunity for you

"To Do Your Bit"

in an agricultural way and help to avoid a world-wide meat famine.

Hereford Cattle

to-day hold the distinction of being the

Premier Beef Breed

of this continent. Enterprise, hard work and generous encouragement to Hereford breeders has gained this distinction.

Over \$60,000 Prize Money

has been added to the prize-lists of this year's fairs by the American and Canadian Hereford Associations. The Canadian Hereford Breeders' Association is at your disposal for information regarding Herefords, how and where to get them. The Association acts as clearing-house for its members, between buyers and sellers. Make your wants known—no commission.

H. D. Smith, Secretary, Ingleside Farm, Ancaster, Ontario.

Telephone 1887, Hamilton.

The Chisholm Milling Co.

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Cordially invites its many friends and customers to visit our two exhibits at the Canadian National Exhibition. A full line of Canuck and Ralston Purina cereals on display under the Grand Stand. Purina Poultry display in the Poultry Building.

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TIMOTHY

Freight paid on two or more bus. of Timothy in Ontario.
Bags extra at 30 cents each.
Government standard No. 1, \$6.50 bus.
Government standard No. 2, (Extra No. 1 for purity), 5.75 bus.
Government standard No. 2, (No. 1 for purity), 5.25 bus.
Dawson's Golden Chaff Fall Wheat (bags included), 3.00 bus.

FRUIT BASKETS

11 Quart Fruit Baskets without covers, \$5.50 per 100
The same with covers, 6.50 per 100
6 Quart Fruit Baskets \$4.50 without covers, \$5.50 with covers.

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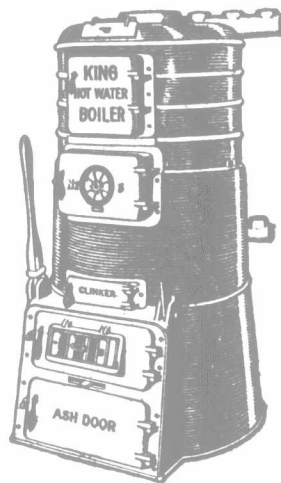
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These Boilers are simply perfect as economical heaters. They give an even, steady heat in every room in stormiest weather. Your Sanitary Engineer, or Plumber, or Hardware dealer will tell you the cost of installation, or you may write us and we will gladly give full information without any obligation to you.



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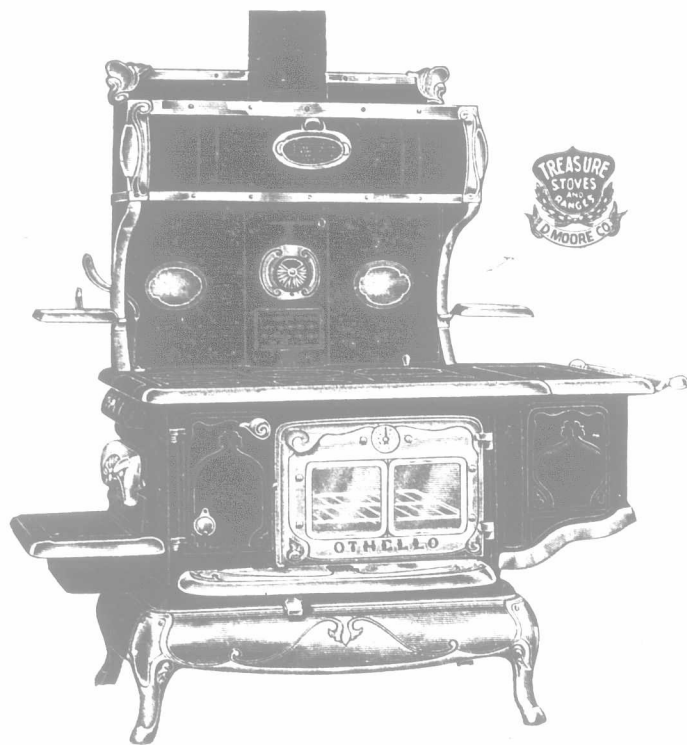
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OTHELLO-TREASURE

THE WONDER-WORKER

ANNOUNCEMENT



FOR SALE BY ALL LEADING DEALERS

Owing to the unavoidable restriction in the production of Treasure Stoves and Ranges, due to the number of employees who have enlisted, and the difficulty of getting experienced men in their places, the demand for our goods has been greater than we have been able to supply.

This accounts for the lack of advertising of the celebrated wonder-worker range the "Othello-Treasure."

We are able, however, to distribute among our agents all over Canada, a fair proportion of "OTHELLO" Ranges, and for those who are unable to see this range on a dealer's floor, we can undertake orders for future delivery, as we have reduced a great many of the lines of ranges we manufacture, in order to concentrate on the output of "Othello-Treasure" ranges, so as to provide for the great and ever-increasing demand for this service-giving, cast-iron, lifelong kitchen servant and companion.

THE D. MOORE COMPANY, Limited
HAMILTON, ONTARIO

Gossip.

Pioneer R. O. P. Holsteins.

There are but few pure-bred Holstein breeders in Canada to-day who are not already familiar with the name at least of Pioneer Farm. Pioneer Farm Holsteins, through the R. O. P. tests, have proven themselves producers and there is not a wide-awake dairyman from Nova Scotia to British Columbia who now overlooks Messrs. Walburn Rivers & Sons when making a summary of the Dominion's most successful pure-bred dairy herds. At present the Pioneer herd numbers a little over 50 head and included in these are 8 daughters and almost a score of grandsons and granddaughters of the famous sire which saw service in the herd so long, Prine Aaggie Mechthilde. Breeders who have followed these columns or the reports of the Record of Performance tests for the past few years are already familiar with the records of the daughters of Prine Aaggie Mechthilde. Over 16,000-lb. two-year-olds and almost 18,000-lb. three-year-olds are not often found among the daughters of sires to-day, and several of these, not only one in each class, but several are around this figure. Mr. Rivers' present offering in bulls are mostly from these daughters of "Prine" and sired by the present herd sire, Canary Hartog, whose three nearest dams average over 30 lbs. of butter in 7 days and 108 lbs. of milk for 1 day. His maternal granddam also has besides her 30.29-lb. 7-day butter record, a milk record of 29,963 lbs. with 1,300.4 lbs. of butter for 365 days, and in her tenth year. Stronger blood for long distance production could hardly be found in any country to-day than has the sons of Canary Hartog from daughters of Prine Aaggie Mechthilde. Breeders who will be in need of a young sire this season should get full particulars regarding these as early as possible. Address all correspondence to Walburn Rivers & Sons, Ingersoll, Ont.

The Czar Back to the Land.

Mr. Romanoff, erstwhile Czar of all the Russias has asked the new government to let him in on the "Loan of Freedom" and is starting life over at the age of fifty years on a paltry \$450,000, but his wife has a nest egg of more than that, and his daughter, Olga, some \$1,500,000. The New York Sun suggests to Nicholas Romanoff, while his own government is somewhat unsettled, that he apply by post card to the Department of Agriculture at Washington, which would send him that delightful pamphlet "How One City Family Managed a Farm," or "The Home Vegetable Garden," or "Poultry for Profit." Selling neat boxes of fried chicken to passengers on the Siberian railroad might eke out the family income, and German wives are famous cooks. Seven acres and liberty! With 900,000 rubles a good bargainer ought to be able to pick up the seven acres in some quiet suburb of Nijni-Novgorod. As for the liberty end of the prescription, that must be left to young Dr. Kerensky and his consultants.

Progress of the Pulpwood Industry.

The war with its changes in trade routes and markets has tended to greatly increase the pulpwood and pulp industry in Canada in the last three years. In fact, the industry has grown steadily since its inception. These facts are shown in a bulletin just issued by the Forestry Branch of the Department of the Interior. The total value of the pulpwood made into pulp in Canada and exported in the raw state for manufacture abroad was nearly \$20,000,000. The amount of pulpwood made into pulp in Canada was 1,764,912 cords, an increase of about 300,000 cords over 1915. While over a million cords of wood were exported in the raw state for manufacture abroad, this was lower in proportion to the total pulpwood made into pulp in Canada than ever before, showing that the Canadian manufacturers are working up more and more of this raw material in our own country. The statistics of the industry are set out in Bulletin 628, Pulpwood, 1916, which may be had free by application to the Director of Forestry, Ottawa.

Cuts Cost Saves Fuel

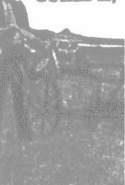
"The Wonder stream of uniform at the rate of 3 to size. Does it too (4 H. P. great power save blower fans inst and it "throws blows." Small blower pipe stream greater for better. Repairs nothing—seldom the work for facing, takes the cutting quicker, thus save fuel and labor. T

GILSON SILO

Is built for years of It has a one-piece frame, gear trans All bearings in perfect all the time—run not heat. Easily shredding or cutting set up, operate, and Guaranteed to fill any power provided revolves 600 R. P. safe speed. Simple, efficient, economical. thousand in use. Cl in first cost and c warrant every stockman having one.

Write for Free "G—shows the difference "Gilson" and how the cost and time of lowest possible. See copy today.

Gilson Mfg. 359 Y GUELPH.



LIFT Y OFF WI

Tells How to or Call Wi

A noted Cincinnati new ether Freezezone, and it bottle cents. You drops der co instar pears find t that with No ness, Freez doesn't Ha

corns between calluses, just sh easy. It is won It works like a has Freezezone.

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CHURCH B

CHIMES AND MEMORIAL BELLS A S FULLY WARRANTED CHURCH BELL FOUND MONTICELLO, VA., U. S. Chicago Office: 154 W. Randolph Established 1854

Cuts Corn Into Dollars Saves Fuel, Labor, Time

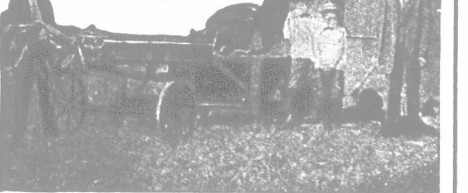
"The Wonderful Gilson" pours a steady stream of uniformly cut ensilage into a high silo at the rate of 3 to 30 tons per hour—according to size. Does it with your own gasoline engine, too (4 H. P. or more)—great power saver. Has six blower fans instead of four and it "throws as well as blows." Small diameter of blower pipe gives silage stream greater force—picks better. Repairs are almost nothing—seldom delay the work for fixing. Finishes the cutting job quicker, thus saving fuel and labor. The

GILSON SILO-FILLER

Is built for years of hard service. It has a one-piece, semi-steel frame, gear transmission only. All bearings in perfect alignment all the time—run smoothly, do not heat. Easily adjusted for shredding or cutting. Easy to set up, operate, and take down. Guaranteed to fill any silo with any power provided cutting wheel revolves 600 R. P. M.—a slow, safe speed. Simple, durable, efficient, economical. Nearly ten thousand in use. Cheap enough in first cost and operation to warrant every stockman or dairyman having one.

Write for Free "Gilson" Book—shows the different sizes of "Gilson" and how they reduce the cost and time of filling to the lowest possible. Send for your copy today.

Gilson Mfg. Co. Ltd.
359 York St.
GUELPH, CAN.



LIFT YOUR CORNS OFF WITH FINGERS

Tells How to Loosen a Tender Corn or Callus so it Lifts Out Without Pain.

A noted Cincinnati chemist discovered a new ether compound and called it Freezone, and it now can be had in tiny bottles as here shown for a few cents from any drug store.

You simply apply a few drops of Freezone upon a tender corn or painful callus and instantly the soreness disappears, then shortly you will find the corn or callus so loose that you can just lift it off with the fingers.

No pain, not a bit of soreness, either when applying Freezone or afterwards, and it doesn't even irritate the skin.

Hard corns, soft corns, or corns between the toes, also toughened calluses, just shrivel up and lift off so easy. It is wonderful! Seems magical! It works like a charm! Your druggist has Freezone. Ask him!

THRESHERMEN

Read This!
Best 2-inch wire-lined Suction Hose in 15-, 20-, and 25-ft. lengths. Our price, 37c. per ft.
Write for our Illustrated Catalogue "Engineer's Bargains" Also General Supplies for Farmers
Windsor Supply Co.
57 Sandwich St. West, Windsor, Ont.

CHURCH BELLS

CHIMES AND PEALS
MEMORIAL BELLS A SPECIALTY
FULLY WARRANTED
MCCORMICK BELL FOUNDRY CO.,
BALTIMORE, Md., U. S. A.
Chicago Office: 154 W. Randolph St.
Established 1856

Figures and Farming.

There is a difference in gifts. I once read an interesting article on the qualifications necessary to a physician. First was placed the "naturalist's eye." By this was meant, the writer explained, that power, seldom acquired, but a natural gift to some persons, of being able to detect at sight the slightest variation from the normal in natural forms.

I may say that this is a gift I never had and never expect to possess. It is of immense advantage to all who handle live stock and may be cultivated to a point where wonderful results are obtained.

But I want to show that, even lacking it, a man may develop other gifts which will compensate him in no small degree for his deficiency.

The ordinary rules of arithmetic, used in combination with plain common sense, will enable the farmer to obtain results quite as valuable and in many cases much more accurate than those gained by the possession of the "naturalist's eye." Hundreds of questions relating to seeding, yields, fertilizers, feeding, etc., can be readily solved by the farmer who has his arithmetic well in hand.

Twenty years ago a dairy cow was judged largely by her appearance. The ability to select good dairy stock by inspection is a valuable gift; but the final test is performance and it is so accurate that the new method has largely replaced the old. This is not mere theory; it is cold fact. Thousands of farmers have largely increased their profits by simply substituting scientific tests for guesswork. Time and again has it been shown that cows supposed to be profitable were merely pulling even, while others, little esteemed, were doing the work. Any farmer possessing a common school education, ordinary good sense and a Babcock testing apparatus can determine in a few weeks, if he will take the trouble, whether a cow has any more valuable traits than an amiable disposition and a good appetite. It is often more convenient to co-operate with others in doing this, but it should be done in some way; and the farmer who gets this information concerning his cows often acquires what may be worth hundreds of dollars to him in the future.

Tom Barron, the famous English poultry expert, has won prizes at nearly every egg laying contest on this continent where he has entered his birds. The success of his pens has made him pre-eminent. Yet it is probable that as good layers are bred on this side of the water as any of his, and that he has won because of his ability to detect the type of heavy producers. He can pick the winners from his own flock and can do so early enough to take advantage of the first season's laying, which is always the best.

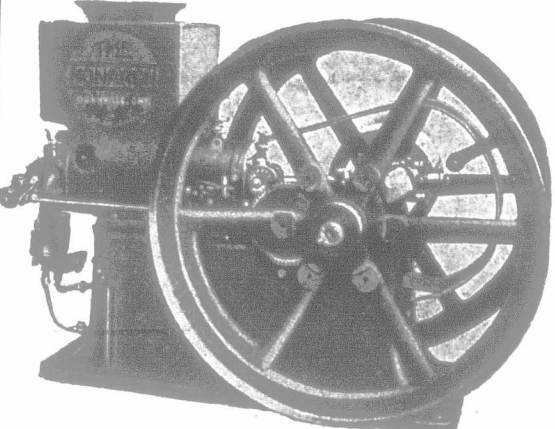
Now, few farmers can acquire this expert knowledge of the type of the heavy laying hen, but any farmer, by installing a system of automatic trap nests, can get valuable information as to the merits of individual hens; can cull the loafers and breed from the best instead of from hens that do not begin to lay until March or April. It does not require a genius to do this, and it is probable that on most farms profits from poultry could be doubled in a few years.

I once worked for a farmer who had several acres of good land ruined by an overwash of gravel during a freshet. He told me he intended to reclaim it by removing the offending material with a road scraper. I have often wondered whether he ever tried it. One foot in depth on an acre of ground represents 1,600 cubic yards of material and to move that quantity even a short distance at the figures usually allowed to contractors for horse work means about \$100 per acre.

How many farmers know the average yield of potatoes per hill to secure a paying crop? How many know how many hills per acre should be planted to get a "stand"? Some years ago a series of experiments on this point were carried out at the Central Experimental Farm at Ottawa. So far as I followed them the maximum yield was indicated when rows were three feet apart and hills fourteen inches apart in the row. Now from a simple calculation it appears that an acre of potatoes should have

43560 ÷ (36x14) = 12245 5/7 hills or, on a rough calculation, 12,500 hills.

Here's an Engine with Every Desirable Feature!



WHEN you buy a "MONARCH" you get one of the best engines ever built. In this famous tried and tested engine, each part is made by specialists.

The "MONARCH" is simple—you readily understand it—you can get full value out of it

THE MONARCH "Reliable and Economical"

works perfectly, summer and winter; starts at a touch; gives long, satisfactory service; has every desirable feature; is economical with fuel; in short, it has every good quality you want to find in the engine you buy.

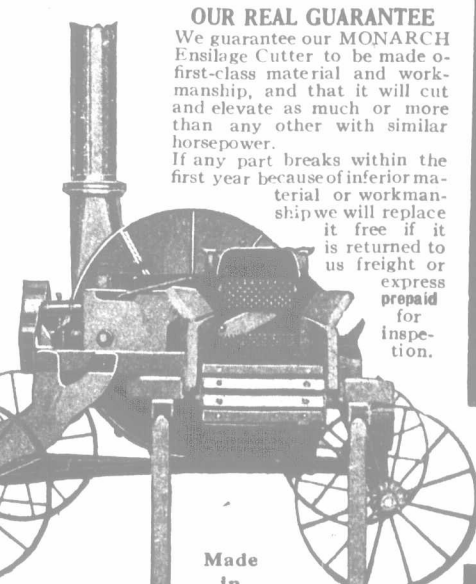
Made in 1 1/2 to 30 h. p. sizes—each giving more than its rated power. Let us send illustrated folders that prove things to YOUR satisfaction.

SAFE STRONG SUPERIOR The "Monarch" Ensilage Cutter

Ideal for use on any kind of power, operates on less energy than any other of equal capacity on the market.

Semi-Steel Fanwheel is cast in one complete unit—no loose parts—safety in operation. Perfectly tempered steel knife with straight, heavy blades.

Accident-proof shear plate. All gears covered. Solid Semi-Steel frame with bearings cast intact. Working parts cannot get out of alignment, and our safety reverse is best made.



OUR REAL GUARANTEE We guarantee our MONARCH Ensilage Cutter to be made of first-class material and workmanship, and that it will cut and elevate as much or more than any other with similar horsepower. If any part breaks within the first year because of inferior material or workmanship we will replace it free if it is returned to us freight or express prepaid for inspection.

Made in 2 sizes: 10-inch and 12 1/2-inch throat

Meet us at the Fairs Our location at Toronto Exhibition and London Western Fair will be the same as last year's. Old friends and new friends welcomed.

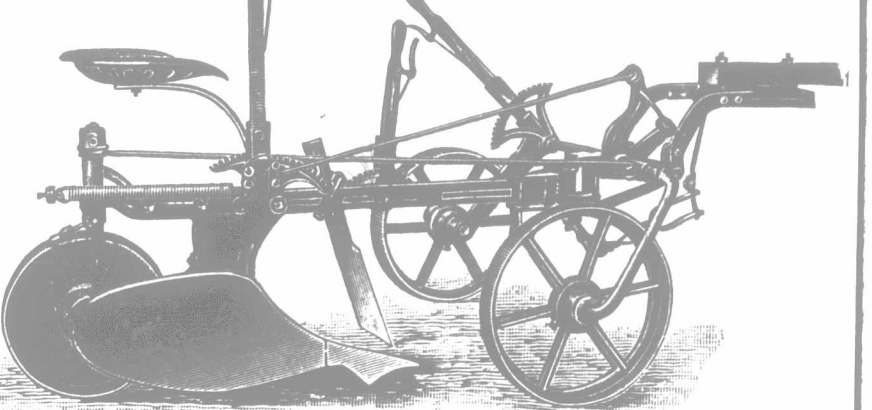
WRITE FOR BOOKLET

CANADIAN ENGINES, LIMITED, DUNNVILLE ONTARIO

MR. FARMER!

Get in line for your fall plowing. The cuts shown are what we manufacture and sell direct to the farmer, allowing him the agent's commission.

Write for full particulars and catalogue. It will pay you.

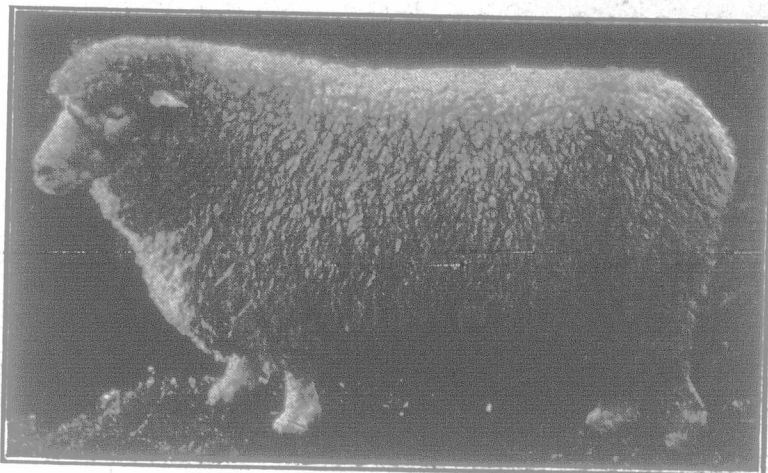


DICK AGRICULTURAL WORKS, BOLTON, ONT. T. A. Dick, Manager

NOTABLE ROMNEY EVENT

300 Yearling Ewes
25 Yearling Rams

From the best Romney Flocks of England
Arriving September 1st



LARGEST IMPORTATION EVER MADE TO AMERICA

The Romney sheep is perfectly adapted to Canadian farms. Wherever a very hardy sheep is desired, with lots of wool of good quality, and the faculty of transmitting that wool to its offspring, Romneys are chosen by those who know. The Romney is the hardiest of English breeds, best able to endure cold, wet, storm and hunger. It is a good shearer, and the wool is not too coarse. It is more resistant to parasites than any other type. Its mutton is better than the mutton from other breeds, having more lean flesh mixed with fat. Romneys make large profits for their owners, even in competition with the wool and mutton of the world. In New Zealand they are the mainstay of the country. In Australia, Argentina, Paraguay, Brazil, Patagonia, and most of the Western States, Romney sheep are the preferred breed. Write for further particulars:

J. H. PATRICK & SON ILDERTON, ONTARIO

The Business of Farming.

There is a big difference between technical knowledge of agriculture and the knowledge of how to make a farm pay. Let me elucidate this point. A man may possess a vast amount of experimental knowledge of crops, for instance. He may know the varieties that give the best results; he may know how to seed them and how to cultivate them, and after that he may know the feeding values of the crops. All this knowledge is most essential for the intelligent carrying on of agriculture, but the man who possesses the knowledge might probably be a complete failure as a farmer, or at best a poor success. That is the peculiar feature about farming. It is a combination of knowledge and good business management. That is why some well-informed men fail as farmers while other men apparently without any technical knowledge of agriculture, make a huge success of it. To further illustrate this point. An Eastern authority on field crops recently told the farmers of Ontario that they ought to grow more roots. He was greatly worked up over the subject, and laid stress on the fact that roots yield well, allow the land to be kept clean, and have a high feeding value. All quite true, but this authority, with all his technical knowledge of field crops, did not know that to increase the acreage of root crops in Ontario just now is next to impossible. He did not know, apparently, that even before the war a great many Ontario farmers were forced to decrease their root acreage owing to the scarcity of labor. He did not know, apparently, that it takes a tremendous amount of labor to hoe roots, and that at present in Ontario the farmers can hardly get help to hoe what root crops they have. Hence, his advice to greatly increase the acreage sown to roots was pure nonsense. That illustration shows the futility of technical knowledge without its practical application. In this country we need information about farm management. I think we have about all the technical knowledge we require. Let our governments and agricultural colleges pay some attention to farm management. By so

"A CHANGE OF SEED PAYS"

Bruce's Fall Wheats for 1917

BRUCE'S NEW "GREAT LEADER."

We purchased the whole stock of this new variety in 1912 from A. N. Jones, Batavia, N.Y., the introducer of Red Clawson, Winter Fife, Genesee Giant, Longberry, Red Wave, Grand Prize, and other well-known varieties. It is a splendid pure White Wheat; straw is sturdy and thick walled; the heads are large and square built and filled with grain, weighing heavy. It is an early variety, and gives evidence of a splendid constitution.

Price, Postpaid—1 lb., 35c.; 5 lbs., \$1.50.
By Express, here—Peck, 90c.; half bushel, \$1.65; bushel, \$3.00.

GRAND PRIZE.

This splendid variety was awarded the Grand Prize at the St. Louis Exposition. It is an early, bald variety, grain red and heavy, straw good and a heavy yielder; the heads are long and square, and it is a very hardy variety. Postpaid—1 lb., 35c.; 5 lbs., \$1.50. By freight—Peck, 90c.; half bushel, \$1.65; bushel, \$3.00.

We recommend this fine variety. It has been very satisfactory the past eight seasons.

STANDARD VARIETIES.

	Bushel.		Bushel.
Wheat, Abundance, White.....	\$3.00	Timothy, Regal, No. 1 G.S.....	\$6.00
Wheat, Dawson's Golden Chaff, White.....	3.00	Timothy, Choice No. 2 G.S.....	5.50
Wheat, Red Clawson.....	3.00	Timothy, Prime No. 3 G.S.....	5.00
Crimson Clover.....	12.00	Fall Rye.....	2.25
Mammoth Clover, No. 2.....	15.50	When 10 bush. of Abundance, Dawson's Golden Chaff or Red Clawson are ordered, will make price \$2.90 per bush.	

Cotton bags, 30c. each extra.

Write for our SPECIAL WHEAT CIRCULAR. Our Fall Bulb Catalogue will be published early in September. Write for it.

JOHN A. BRUCE & CO., LIMITED
SEED MERCHANTS — ESTABLISHED 1850 — HAMILTON, ONT.

250-ACRE FARM FOR SALE

2 miles from village and canning factory and G. T. R. Rural mail delivery; 30 acres good saw timber. Water supply, excellent orchard and small fruits; 2 houses; 2 barns, one with basement; 2 driving barns; one modern hog house, and all necessary outbuildings. 69 acres plowed for fall wheat. Will sell stock and implements if desired. If interested apply to:

PETER SCHILZ, R. R. 1, VICTORIA NORFOLK CO., ONT.

You Will Enjoy

McCormick's
JERSEY CREAM
Sodas

Sold fresh everywhere in different-sized packages.

doing they can answer a whole lot of open questions, and can link up their share of technical knowledge with the business of farming. There would be far less controversy and uncertainty over such crops as corn, alfalfa, and sweet clover if they had been studied from the standpoint of their value in a farm rotation, from a purely business standpoint. I would like to hear other farmers' views on this question of farm management.—D. STEWART, in Farmer's Advocate, Winnipeg.

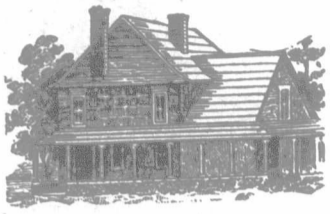
Gossip.

Woodview Jerseys on Exhibition.

The splendid herd of Woodview Farm Jerseys, owned by John Pringle, of London, Ont., will this year be represented at the Canadian National Exhibition and at the Western Fair, along with selections from the herd of Arthur Little, also of London. The Woodview herd has been developed to such proportions that it is now considered one of the best in Canada, while the standard for quality and production have been set so high as to make them attractive from many viewpoints. The foundation cows were imported from the Island of Jersey, being high-class in regard to quality and performance. The motto of Woodview Farm, "We work our show cows and show our work cows," explains the principle upon which the herd is managed. Visitors to the Toronto Exhibition or Western Fair will have an opportunity of seeing Woodview's work cows being shown.

A young man went to a dentist the other day to have several teeth extracted. "I suppose I ought to take something to deaden the pain, but I'm afraid of this gas you use," said the prospective patient. The dentist reassured him and wound up with: "You'll only be unconscious two or three minutes at the most." The patient took out his pocketbook. "Never mind that now," said the dentist; "you can pay me when I've finished." "I wasn't going to pay you!" exclaimed the patient. "I was going to count my money."

ROOFING



1-3 The Price of Metal

Guaranteed 15 Years

Four Ply, Rock Faced Pure Asphalt Roofing. Green or red. One-third the price of galvanized iron.

Guaranteed 15 years. Special August and September price \$3.25 per square.

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The Halliday Company, Limited
Factory Distributors, Hamilton, Canada.

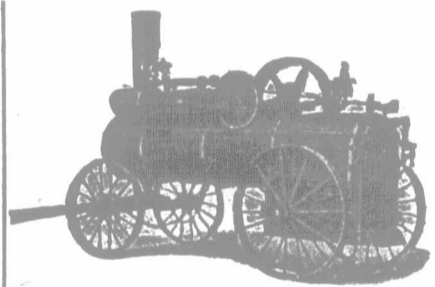
Ring-Bone

There is no case so old or bad that we will not guarantee

Fleming's Spavin and Ringbone Paste
to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

Fleming's Vest Pocket Veterinary Adviser
Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable, bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists
75 Church St. Toronto, Ont.



Rebuilt Traction and Portable Engines and Threshers

Suitable for Farmers and Threshers' use, at very reasonable figures.

The Robert Bell Engine and Thresher Company, Limited
SEAFORTH, ONTARIO

CREAM SEPARATOR

Let us ship you a

"Sanitary King"

Six sizes—135—200—250—375—600 and 800 lbs. capacities.
DETACHABLE SPINDLE, OIL SPLASH and loose discs. We GUARANTEE these machines to be built of the best material, first-class workmanship, skim clean, easy to turn and wash. Cash prices very low. Must satisfy or money refunded. Sold on easy terms if desired. Write to-day for catalogue and local agent's address.

King Separator Works
Of Canada,
BRIDGEBURG, ONTARIO.

"TITE WAD"

"STICKS LIKE A RUBBER DOG"
ORIGINAL RUBBER PUTTY
Indispensable to Farmers
Tite wad will vulcanize Auto Tires, Inner Tubes, Rubber Boots and Hot Water Bottles. No tools necessary. Guaranteed to satisfy. Order a 50c tin by mail to-day, postpaid. Dept. D.
E. Schofield, 43 Victoria Street, Toronto.

Poultry Feed.

The question of feed for poultry is becoming serious. Corn is practically off the market, oats high in price, barley and buckwheat very scarce as well as high. Wheat the most popular poultry feed in Canada at any price, should not, under present conditions, be used for poultry if fit for milling purposes, for the prospects are that this year's crop will leave the world's supply of wheat still short and it will be necessary to save all suitable wheat for human consumption. Poultrymen will therefore have to look for a substitute.

Before looking for other grain feeds, it might be advisable to suggest that more mash feeds be used in the ration. During the summer both the chicks and the layers could be fed a larger proportion of dry or moist mash and less grain than is usually advised. Mill feeds such as shorts and bran are easier to get and cheaper than the grain feeds, and when the birds are on range could be eaten in larger proportions.

For the grain part of the ration it might be necessary to use oats, barley, buckwheat, etc., when these are procurable at reasonable prices. In many places these cannot be obtained; here the screenings from flour mills and elevators should be used.

There are considerable buckwheat screenings procurable at a reasonable price at the prairie and Port Arthur elevators, which make good feed. At the middle eastern flour mills there are quantities of screenings taken from milling wheat that would form almost an ideal grain mixture and could be purchased at about the price of shorts. In fact, most of this class of feed is ground and mixed with the mill feeds and as a consequence is lost as a grain feed for poultry.

Such feeds make very suitable rations especially for growing chicks or for the summer feeding of laying stock and they are much more economical than wheat. In an experiment conducted at the Cap Rouge Experimental Station screenings at two-thirds the cost of good wheat produced eggs at less cost than did the wheat. Some of this feed may be fed whole and some ground for a mash.

Samples of feeds and prices in car lots have been submitted which, even with a reasonable commission could be retailed at a comparatively low price. Some of these samples are—Buckwheat screenings, \$25 per ton at Saskatoon, this is a cracked feed, 96% wild buckwheat and cracked wheat, 4% weed seeds of various kinds. It is a good rearing feed and may be fed whole or ground. Another sample, was quoted at \$1.90 per cwt. f. o. b. Toronto; a sample of small wheat with a few oats and a trace of wild buckwheat, price \$2.00 per cwt.; two samples somewhat better at \$2.10, a good sample of burnt wheat at \$2.50 and a better sample at \$2.90.

These are all satisfactory feeds and the prices quoted show that compared with wheat they are cheaper. They could be used as whole grain or as a mash feed. In some of them weed seeds will be found, and care must be taken to feed so these will not spread. Local flour mills in Ontario and Quebec submitted all the samples but the wild buckwheat screenings. No doubt, feed of this nature could be secured at any mill making flour, and if poultrymen would ask for it, more of it would be available.

For British Columbia and the Maritime Provinces, the buckwheat screenings seem the best available and a little co-operation might be the means of securing this feed in car lots.

Poultry that has been eating good wheat and corn may not at first take to the screenings but with a little time and patience they will eat it readily. A car load of it was received at the Experimental Farm, Ottawa, at a cost of \$35 a ton. It has proven very satisfactory for growing chicks and for summer feeding of hens. It may not be ideal for litter feeding in the winter but for fattening and mashed feeds is most satisfactory.—Experimental Farms Note.

James Begg & Son, St. Thomas, Ontario, breeders of Ayrshire cattle, write us that their stock is pretty well all sold. They are now in need of a new herd header and would like to see their stock bull go to some other good herd. He is still in condition and carries in his veins some very fashionable blood, tracing back to May Mischief, the world's champion.

Gombault's Caustic Balsam

The World's Greatest and Surest

Veterinary Remedy

HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Caustery or Firing. Invaluable as a CURE for

FOUNDER, WIND PUFFS, THRUSH, DIPHTHERIA, SKIN DISEASES, RINGBONE, PINK EYE, SWEENEY, BONY TUMORS, LAMENESS FROM SPAVIN, QUARTER CRACKS, SCRATCHES, POLL EVIL, PARASITES.

REMOVES BUNCHES or BLEMISHES, SPLINTS, CAPPED HOCK, STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

The Accepted Standard VETERINARY REMEDY

Always Reliable. Sure In Results.



None genuine without the signature of
The Lawrence-Williams Co.
Sole Proprietors & Distributors for the U.S. & CANADA. CLEVELAND, O.

NOTHING BUT GOOD RESULTS.

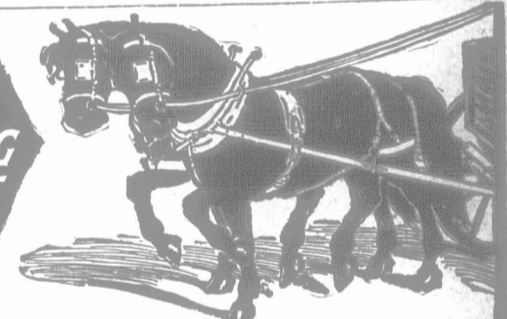
Have used GOMBAULT'S CAUSTIC BALSAM for more than 20 years. It is the best blister I have ever tried. I have used it in hundreds of cases with best results. It is perfectly safe for the most inexperienced person to use. This is the largest breeding establishment of trotting horses in the world, and use your blister often.—W. H. RAYMOND, Prop., Belmont Park Stock Farm, Belmont Park, N.Y.

USED 10 YEARS SUCCESSFULLY.

I have used GOMBAULT'S CAUSTIC BALSAM for ten years; have been very successful in curing curb, ringbone, capped hock and knee, bad ankles, rheumatism, and almost every cause of lameness in horses. Have a stable of forty head, mostly track and speedway horses, and certainly can recommend it.—C. CRAWLER, Training Stables, 990 Jennings Street, New York City.

Sole Agents for the United States and Canada.
The Lawrence-Williams Co.
TORONTO, ONT. CLEVELAND, OHIO.

KEEP YOUR HORSES IN PRIME WORKING CONDITION



SOUND legs pull big loads. No horse with a Spavin, Splint, Curb, Ringbone, Bony Growth or Sprain, can do itself justice. Thousands of horsemen have been keeping their horses sound by using Kendall's Spavin Cure—the old reliable, safe remedy. Mr. Maurice Wayville, Amherstburg, Ont., wrote on April 20th last—"I cured a jack spavin with two bottles of your Spavin Cure. I am just taking off a bog spavin. It is the best liniment for sprains you can get for man or beast. I would like to have a copy of your 'Treatise on the Horse'."

KENDALL'S SPAVIN CURE

acts quickly, leaves no scars or blemishes, and costs little—\$1. a bottle—6 for \$5. Get our valuable book—"Treatise on the horse"—free at your druggist's, or write us
Dr. B. J. KENDALL CO., ENOSBURG FALLS, VERMONT, U.S.A.

NORTHERN ONTARIO

Millions of acres of virgin soil, obtainable at 50c. an acre in some districts—in others, free—are calling for cultivation.

Thousands of farmers have responded to the call of this fertile country and are being made comfortable and rich. Here, right at the door of Old Ontario a home awaits you.

For full information as to terms, regulations and settlers' rates, write to:—

H. A. MACDONELL, Director of Colonization, Parliament Buildings, Toronto, Ont.
Hon. G. H. Ferguson, Minister of Lands, Forests and Mines

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for cleansing milking machinery.

THE CANADIAN SALT CO., LIMITED, Windsor, Ontario.

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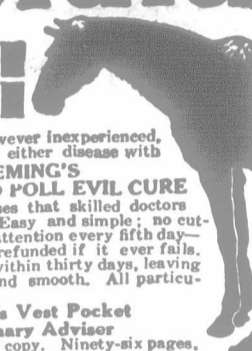
Smooth, Hard, Clean-Cut. Write for booklet.

MILTON PRESSED BRICK COMPANY
Milton, Ontario

OUR LATEST IMPORTATION OF CLYDESDALES

arrived at our barns late in November. A number of them since have been prominent winners at both Guelph and Ottawa. But we have others (both stallions and mares) that were never out, the majority of the stallions weigh around the ton, and better quality and breeding were never in the stables. Come and see them. We like to show them. SMITH & RICHARDSON, COLUMBUS, ONT.

Fistula and Poll Evil



Any person, however inexperienced, can readily cure either disease with FLEMING'S FISTULA AND POLL EVIL CURE—seven bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vest Pocket Veterinary Advisor. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durably bound, indexed and illustrated. Fleming Bros., Chemists, 75 Church Street, Toronto, Ont.

DR. PAGE'S ENGLISH SPAVIN CURE

Cures the lameness from Bone-Spavins, Side-Bones, Ringbones, Curbs, Splints, etc., and absorbs the bunches; does not kill the hair, absorbs Capped Hoofs, Bog-spavins, thick pastern joints; cures lameness in tendons, most powerful absorbent known; guaranteed, or money refunded. Mailed to any address. Price \$1.00. Canadian Agents: J. A. JOHNSTON & CO., DRUGGISTS, 171 King St. East, Toronto, Ont.



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Your money can earn 5% just as easily as 3% if you invest it in the debentures of the Standard Reliance Mtg. Corpn. Our booklet, entitled Profits from Savings, tells you all about it. Write now for a copy. It's free. STANDARD RELIANCE MTG. CORPN. 82-88 King St. E., Toronto, Ont.

MESSRS. A. J. HICKMAN & CO. (LATE HICKMAN & SCRUBY), COURT LODGE, EGERTON, KENT, ENGLAND, exporters of **PEDIGREED LIVE STOCK** of all descriptions. Specialty made of draft horses, beef and dairy breeds of cattle, show and field sheep. Illustrated catalogues and testimonials on application. All enquiries answered with pleasure. Now is the time to import. Prospects were never better, and insurance against all war risks can be covered by payment of an extra 1% only.

MORE HORSEPOWER if your teams are equipped with *Ventis*. These pads prevent Sore Shoulders and cure Cell Sores. Your dealer will supply you, or write BURLINGTON BLANKET CO., Ltd., 793 King Street West, Toronto, Canada.

BEAVER HILL Aberdeen Angus Cows

with calves at foot and bred again. Bulls of serviceable age, females all ages, a few Shearling Oxford Down ram lambs. Alex McKinney, R.R. No. 1, Erin, Ont.

Alloway Lodge Stock Farm

Angus—Southdowns—Collies
SHOW FLOCKS
Rams and ewes. Heifers in calf to Queen's Edward, 1st Prize, Indiana State Fair. Robt. McEwen, R. R. 4, London, Ont.

BALMIEDIE ABERDEEN-ANGUS

Get high-class Angus bull and breed the champion steers. I have show-ring quality bulls from 18 to 24 months of age; also choice 1 and 3-year-old heifers. T. B. BROADFOOT, FERGUS, ONT.

IF INTERESTED IN **ANGUS CATTLE** visit SUNNY ACRES FARM, or write to Wm Channon & Son, Oakwood, Ontario

Kennelworth Farm Aberdeen-Angus

At special prices, six young bulls sired by Victor of Glencairn. All are of serviceable age, and show individuals. PETER A. THOMSON Hillsburg, Ont.

Dr. Bell's Veterinary Medical Wonder, 10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys, Fevers and Distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly. Dr. Bell, V. S., Kingston, Ont.

Gossip.

An Entire Jersey Herd on Sale.

Owing to ill health the owners of the beautiful stock farm, "Bellevue Heights", North Hatley, Que., have decided to sell their splendid herd of Jerseys. In all there are 56 head of registered stock, all of fashionable blood, headed by the two-year-old Leon's Gamboge 8040. There are 25 cows in milk, good producers with sound udders; 9 two-year-olds, bred; 10 good yearlings and 11 fine heifer calves. The sale is set for Tuesday, September 11, to commence at 10 a. m. Lunch will be served at noon. See the advertisement in this issue for particulars as to how the farm may be reached, and for further information write to Geo. W. A. Reburn, R. R. 1, North Hatley, Que. When writing please mention "The Farmer's Advocate".

Kennelworth Aberdeen-Angus.

There are but few herds of pure-bred Aberdeen-Angus cattle in Ontario more favorably or widely known than the Kennelworth herd owned by Peter A. Thomson of Hillsburg. Counting in the two-year heifers there are now well on to fifty breeding females in the herd and while several of the more fashionable families are well represented the "Pride" tribe predominates. These breeding cows of the Pride family are perhaps sought after more to-day than any other strain the breed has so far produced. The mature cows have both size and depth, and judging from the matrons in the herd they have a sufficient flow of milk to raise their calves exceptionally well. At present there are a choice selection of young bulls from these dams that are, we understand, offered at prices that should make them really attractive. These are all sired by the great imported sire at Kennelworth, Victor of Glencairn, a bull whose offspring has perhaps been more uniform than the get of any other sire used in Canada for some years. A full description as to ages, etc. of everything listed will be gladly furnished at all times. Address Peter A. Thomson, Hillsburg, Ont., and mention this paper.

Is it Not Curious?

A grade cow, eight years old, near Woodstock, Ont., that freshened last November, has given in eight months 13,092 pounds of milk, average test over 3.2, spot cash value \$288.57; she is still giving 34 pounds of milk per day, and is due in November again. Such a cow is a source of perennial pride to her owner; he weighs the milk from each cow he has, because he finds it pays.

But is it not curious that many dairymen never bother to weigh, and so remain quite hazy as to each individual's performance? It is curious, too, when you come to think of it, that so many are content to bother with a herd not one of which has any remote chance whatever of giving in a year even one-half of what this fine cow gave in eight months.

The immense possibilities for an increased flow of milk from cows selected on their actual records, bred right, fed well and handled sensibly, seem, curiously enough, entirely undreamed of as yet by some dairy farmers in all provinces.

Milk record forms will be gladly supplied free of charge by the Dairy Division, Ottawa, to any one curious enough and enterprising enough to find out what each cow does actually produce in return for all she eats. Make each cow pay. C. F. W.

Two Chances.

Cheer up! You have two chances—one of being drafted and one of not; and if you are drafted you have two chances—one of going to France and one of not going; and if you go to France, you have two chances—one of getting shot and one of not; and if you get shot, you have two chances—one of dying and one of not; and if you die—well, you still have two chances.

A little boy remarked to his grandmother: "Grandma, if you only went to the circus once, you'd never go to prayer meeting again as long as you lived."

BROWN SWISS CATTLE

Are quickly coming to the front as A DAIRY AND DUAL-PURPOSE BREED
Study their merits, become a breeder and the reward will all be yours.

FOR INFORMATION AND LITERATURE CORRESPOND WITH
Ralph H. Libby, Stanstead, Que.
Secretary of Canadian Brown Swiss Association

FOR EXCHANGE

We have 20 stockers in good condition which we would trade for dairy cows.

Herold's Farms Beamsville, Ont.

LARKIN FARMS

Queenston, Ontario

OFFER EXCEPTIONAL VALUES IN
ABERDEEN-ANGUS CATTLE SHROPSHIRE AND SOUTHDOWN SHEEP
Visitors Welcome—Correspondence Solicited

Bell Telephone HILLSDALE FARM Farm 3 1/4 miles east of Ottawa
B. ROTHWELL
BREEDER OF HIGH-CLASS CLYDESDALES
Write me for prices on champion mares. R. R. NO. 1, OTTAWA ONT.

WOODLANDS BROWN SWISS AND PONIES
We have no Clydes, left for sale. Our special offering is Brown Swiss bulls out of high-testing and big-producing dams. Strictly high-class. Also Shetland and Welsh ponies.
R. BALLAGH & SON, GUELPH, ONTARIO

BURNFOOT STOCK FARM
Breeders of high-record, dual-purpose Shorthorns with splendid conformation for beef. Visitors welcome.
S. A. MOORE, Prop. Farm one mile north of Caledonia CALEDONIA, ONT.

CREEKSIDE FARM SHORTHORNS
We have for sale, at present, a number of young things by our former herd sire, Clan Alpine (the Claret-bred bull, by Proud Monarch). We like them—so will you. If it's young bulls or a few females you need, we would welcome a visit from you. Write or 'phone. Visitors met by appointment.
Geo. Ferguson, Elora Station, C. P. R., G. T. R. Salem, Ontario

IMPORTED SHORTHORN BULLS
We have several newly-imported bulls of serviceable age. Cruickshank, Marr and Duthie breeding, as well as a number of choice, home-bred young steers, got by our noted herd sire, Proud Monarch, by Royal Blood. Get our prices before buying elsewhere. **RICHARDSON BROS., Columbus, Ont.**

Blairgowrie Shorthorn Offering
Imported and Canadian-bred. More bulls to select from than any herd in Ontario, all of serviceable age; also a large number of females, which are bred right and priced right. All the stock for sale.
JOHN MILLER, Ashburn, Ont. Myrtle Station, C.P.R. and G.T.R.

Pleasant Valley Farms
Offers for sale, (Imp.) Loyal Scot, conceded to be one of the best stock bulls in the country. Also good young bulls and females with the best of individual merit and breeding. Inspection invited.
Geo. Amos & Sons, Farm 11 miles east of Guelph, C.P.R. Moffat, Ontario

WILLOWBANK STOCK FARM SHORTHORN HERD
Established 1855; This large and old-established herd has at the head the two great bulls, Imported Roan Chief = 60865 = a Butterfly; and the prizewinning bull, Brown Dale = 80112 = a Mina. An extra good lot of young stock to offer of either sex. Splendid condition. Good families of both milking strain and beef.
James Douglas Caledonia, Ontario

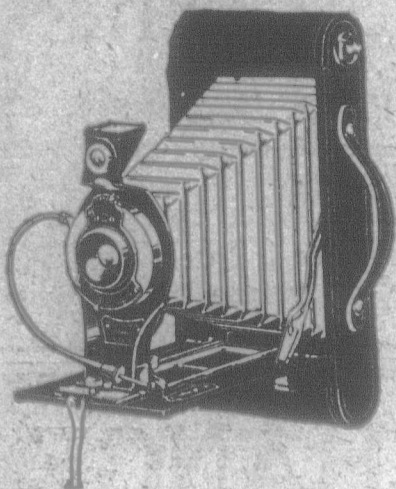
1854 MAPLE LODGE STOCK FARM 1917
SHORTHORNS AND LEICESTERS
Three Shearling rams, some lambs and ewes for sale.
MISS CHARLOTTE SMITH R. R. 1, CLANDEBOYE, ONT.

Glengow Shorthorns, Cotswolds
For the present we have sold all the Cotswolds we wish to spare, but we have a choice offering in young bulls, fit for service. They are all of pure Scotch breeding, and are thick, mellow fellows bred in the purple. **WM. SMITH, Columbus, Ont., Myrtle, C. P. R., Brookliu, G. T. R., Oshawa, C.N.R.**

SALEM SHORTHORNS
Herd headed by Gainford Marquis, (Imp.), undefeated in England and Canada. Sire of the winning group at Canadian National, 1914, 1915 and 1916. Can supply cattle, both sexes, at all times.
J. A. WATT, ELORA, ONTARIO

Robert Miller, Stouffville, Ont.
still has a few Shorthorn bulls fit for service, and some females that are as good as can be found for the man that wants to start right in Scotch Shorthorns. They will be sold at a low price, considering the quality, and the freight will be paid.
Write for anything in Shorthorns or Shropshires. One hour from Toronto.

MADE IN CANADA



3A Brownie

Price, \$10.00

Here is a camera that gives you pictures post-card size, good pictures, and gives them to you the easy way, for any Brownie is extremely simple to work.

The price, ten dollars, is surprisingly low for a completely equipped, folding pocket camera of this type and is only possible through quantity production and factory efficiency.

The equipment includes the new Brownie Ball Bearing shutter, with cable release, having both time and "bulb" actions and snap-shot speeds of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{8}$ of a second and the Kodak Autotime Scale as an aid to correct exposure.

It is autographic, of course—you can date and title each negative at the time of exposure.

All Dealers.

CANADIAN KODAK CO., LTD.
TORONTO, CAN.

DUAL-PURPOSE SHORTHORNS For Sale

Both males and females from high-record dams. One three-year old, just passed 9 months' milking, with record of over 11,000 lbs.—and still milking heavy. Write or come and see

GEO. W. CARTER
R. R. No. 4, ILBERTON, ONT.

CHOICE STOCK

IN

Shorthorn Cattle

Poland China and Chester White Swine

Many are winners at the best shows.

See us at the Exhibition.

GEO. G. GOULD, R. No. 4, ESSEX, ONT.

Spruce Lodge

Shorthorns and Leicesters

Sire in service, Roan Chief Imp. 60865. Young bulls from 10 to 14 months, and a choice lot of rams and ewes. All by imported sires.

W. A. Douglas, Caledonia, Ontario.

GLENFOYLE SHORTHORNS

PRESENT OFFERING

Choice young cows and heifers. Young bulls of the best dual-purpose families; also four females of Scotch breeding for sale. Prices right.

STEWART M. GRAHAM, LINDSAY, ONT.

PLASTER HILL HERD

DUAL-PURPOSE SHORTHORNS

A few choice bull calves coming on; also a few heifers in calf to Butterfly Champion 110726.

F. Martindale & Son, Caledonia, Ont. R. R. 3

MARDELLA SHORTHORNS

Bulls, females, sires, quality; breeding dual-purpose cattle over 40 years. The Duke—dam gave 13,599 lbs. milk, 474 lbs. butter-fat—at the head.

Thomas Graham, Port Perry, Ont., R. R. No. 3

Win The War Crops.

EDITOR "THE FARMER'S ADVOCATE":

If bushels are as effective in winning the war as bullets, a trip through Western Ontario while the grain is in the stook shows that Old Man Ontario, granted favorable harvesting conditions, will roll out the golden kernels to help defeat the Huns at a well-nigh incredible rate.

While the low lands of Essex suffered from continuous rains earlier in the season buckwheat and millet have been used as substitutes in a large measure. A decrease in corn acreage and quality is noticeable throughout.

In Kent, however, was the "greater production" most apparent with Dover the banner township. Where corn was formerly King—wheat now reigns supreme. Wheat! wheat! everywhere and everywhere an abundant crop. Hundreds of acres in a mile, stooks standing so closely together one wonders how a wagon with rack could be turned in the field. One farm of 400 acres had 100 acres of wheat and 50 acres of beans. Beans, although late, are doing well. Corn comes far below the average both in acreage and in quality, due to weather conditions about planting time. Farther south in the vicinity of Blenheim are the tobacco fields,—10, 12 and 15 acres of sturdy plants without a weed. Here no rains have fallen for six weeks and the plants are likely to fail soon. A shower would therefore be welcomed by tobacco growers.

Few cattle are seen throughout these southern counties and instead of bank barns and cement stock stables are tobacco barns with beams and poles for drying the plants. Numerous small doors for ventilation and chimney-like roof ventilators present a marked contrast to the ordinary grain barns and stock stables so numerous in Lambton and Middlesex counties. Not until Lambton is reached is mixed farming carried out. Pasture farms and sleek herds of cattle as well as fine crops are to be seen.

Here we come upon healthy thriving orchards that have been entirely missing farther south, for there the deadly San José scale has laid bare every tree and branch. The destroyed orchards now are being utilized for fire wood.

One noticeable fact throughout was the number of farm laborers. Men were working on every hand and not a single female was seen handling sheaves. In a couple of fields only were women hoeing beans. One could not help but express surprise that labor could be secured to handle those large hoe crops, but nowhere was a lament heard as to shortage of laborers.

Lambton Co., Ont. ELSPETH WILSON.

Gossip.

Glencairn Ayrshires.

Many of our readers and those in particular who are interested in breeding pure-bred Ayrshires need very little introduction to the splendid R. O. P. Glencairn herd of high-testing Ayrshires, owned by Thos. J. McCormick of Rockton, Ont. The Glencairn herd, founded away back in the early seventies, to-day needs to ask for no favors and to make no apologies. In their everyday dress the majority of the mature cows have produced under R. O. P. rules from eight to twelve thousand pounds of nearly 4 per cent. milk on twice a day milkings, and their offspring have found their way to nearly every county in Ontario as well as to most of the provinces. The last to find their way to the extreme western province were several daughters of the former stock bull, Springhill Taxmaster, whose sire was Lessnessock Durward Lely, a full brother to Springhill Livewire the sire of Grandview Rose, the 21,000-lb. British Columbia cow. There are several daughters of Springhill Taxmaster still in the herd and these as well as all the mature cows are being bred to the present herd sire Springhill Admiral a son of the noted champion Hobsland Masterpiece and Snowflake, one of Scotland's famous 70-lb.-a-day cows. All the calves coming from now on, will be by the present sire and if the two that were seen by a representative of this paper during a recent trip to the farm are favorable comparisons Glencairn Farm has surely made a fortunate selection in their present herd sire. Mr. McCormick has young stock listed for sale at nearly all times.

Your Lame Blemished Horses Need Attention Now

Don't delay—it's easier and cheaper to treat blemishes before they become deep-seated. A few applications of ABSORBINE, well rubbed in, act quickly and effectively without blistering or laying up the horse.

ABSORBINE is concentrated—handy and economical to use. A few drops are all that is required at an application.

ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.

THE ANTISEPTIC LINIMENT

is used by successful trainers, breeders and horseowners the world over—it has increased the working and selling value of thousands of horses—it has helped many horses break records on the track, and incidentally has made money for its users. ABSORBINE itself has a record of twenty-five years' service in producing successful results.

WHAT USERS SAY:

Mr. CHAS. LAWRENCE, Paoli, Pa.—"I have successfully used your Absorbine on a big knee of six months' standing. It certainly is the most remarkable liniment I ever used."

Mr. R. J. CRABTREE, Maroa, Ill.—"I have never used anything equal to Absorbine for thoroughpin. I removed one of a year's standing. I would not be without it and have recommended it to my neighbors and friends."

USE ABSORBINE

to reduce bursal enlargements, bog spavins, thoroughpins, puffs, shoe boils, capped hocks, swollen glands, infiltrated parts, thickened tissues, rheumatic deposits, enlarged veins, painful swellings and affections; to reduce any strain or lameness; to reduce strained, ruptured tendons, ligaments or muscles; to strengthen any part that needs it.

ABSORBINE, \$2 a bottle at druggists, or postpaid upon receipt of price.

W. F. YOUNG, P.D.F.

258 Lymans Bldg., Montreal, Canada

Maple Leaf Shorthorns and Shropshires

I have a limited number of the choicest shearing ewes and ram and ewe lambs ever bred. These are all sired by Nock 16 Imp. I also have one 7 months show bull (Missie) got by Prince Arthur. One other 9 months Mysie. Prices right, correspondence solicited.

J. BAKER,

R.R. NO. 1, HAMPTON, ONTARIO

SHORTHORN CATTLE AND LINCOLN SHEEP

Young cows and heifers of the best Scotch families. Sire in service, Sittytton's Selection—8658—The winning pen of long-wool lambs, all breeds competing, at 1916 Guelph Winter Fair, came from this flock. Imported and home-bred rams and ewes for sale. New importation will arrive in July.

R. S. ROBSON & SON,

DENFIELD, ONT.

OAKLAND---50 SHORTHORNS

A herd of feeders, breeders and milkers that give satisfaction wherever they go. One bull for sale, 12 months, white, extra milk strain. Also females any age. Priced so you can buy. One of the finest bulls in Ontario heads this herd.

JNO. ELDER & SON, HENSALL, ONTARIO

SHORTHORNS

Imported and Canadian bred. A. G. FARROW, Oakville, Ont.

IMPORTED SHORTHORNS

Thirty-five imported cows and heifers, forward in calf to service in Scotland; also five imported bulls. Our 1916 importations are all choicely bred. Have also home-bred bulls and females. Farm half mile from Burlington Junction. Write or call and see us. J. A. & H. M. Pettit, Freeman, Ont.

SPRUCE GLEN SHORTHORNS

of such popular strains as Minas, Fames, Miss Ramsdens, Florences, Emilys, etc. Have still a few young bulls—thick, mellow fellows, fit for service.

JAMES McPHERSON & SONS

DUNDALK, ONTARIO

SPRING VALLEY SHORTHORNS

Herd headed by the two great breeding bulls, Newton Ringleader (Imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex.

KYLE BROS.,

DRUMBO, ONT.

PHONE AND TELEGRAPH VIA AYR.

CLOVERLEA HOLSTEIN-FRIESIANS

Stock for sale, all ages, from choice, high-testing dams—75 head to choose from. Our special offering is a few choice heifers, due to freshen in September or October. Personal inspection is invited.

GRIESBACH BROS.

L.-D. Phone

COLLINGWOOD, ONT.

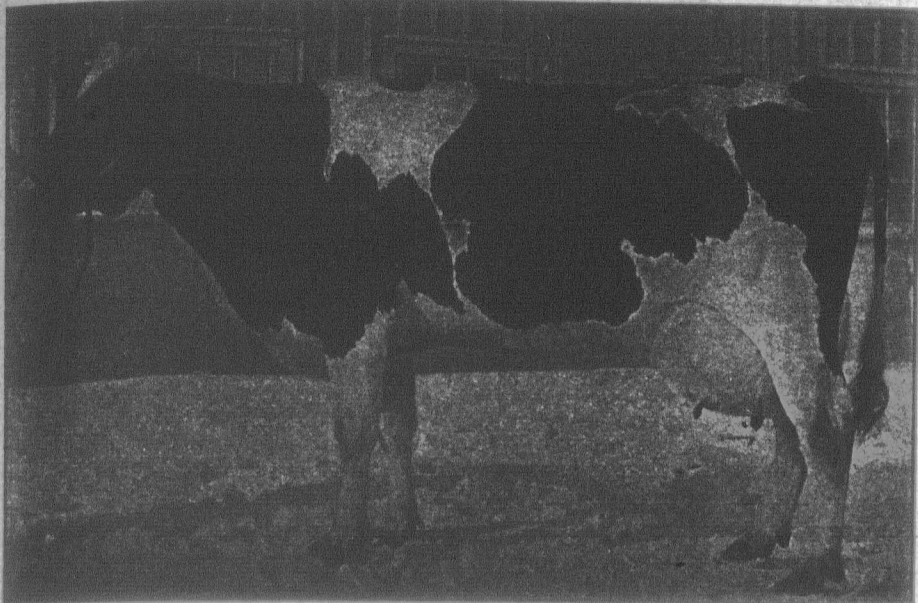
Pioneer Farm Holstein Herd With big yearly records and high average butter-fat test, and headed by Canary Hartog, grandson of Royalton Violet at 10 years, 30.39 lbs. butter, 735 lbs. milk in 7 days; 29,963 lbs. milk, 1,300 lbs. butter in 1 year. Sire's dam, Royalton De Kol Fern, 34.60 lbs. butter in 7 days, 116 lbs. milk in one day. Bull calves for sale, born after Jan. 25th, 1917; dams over 11,000 lbs. milk up to nearly 16,000 lbs. milk in 1 year, at 2 years old.

Walburn Rivers, R. R. No. 5, Ingersoll, Ontario. Phone 343L, Ingersoll Independent Line.

WILLOWBANKS HOLSTEIN-FRIESIANS

Herd headed by King Walker Pride (C. H. B., 17362) (A. H. B., 207261) who is a son of the famous King Walker and the great show cow, Pride Hengerveld Lennor 30.12, who is a granddaughter of Blanche Lyons De Kol 33.31 and King Segis, who is a grandsire of world-champion cow, also of the two highest-priced bulls of the breed. Young stock for sale.

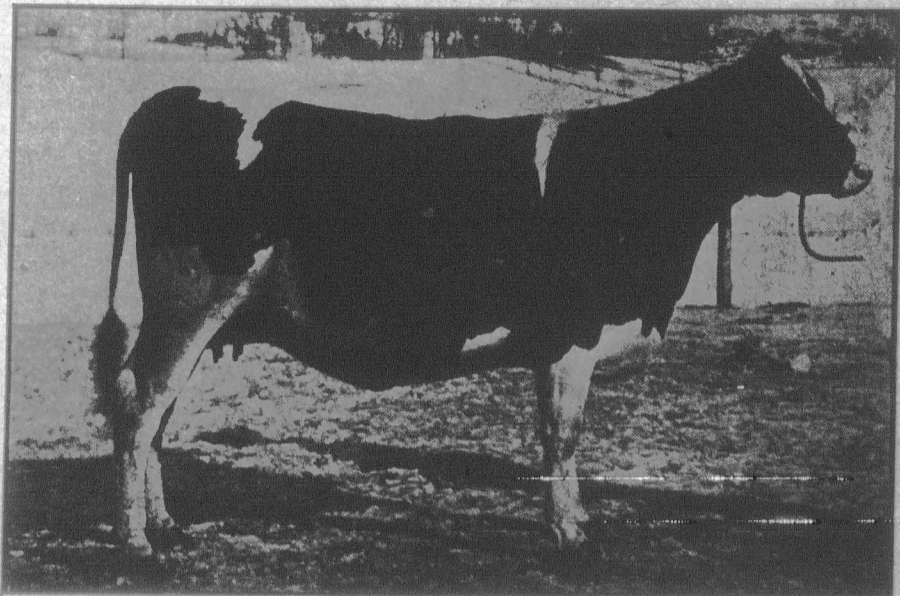
C. V. ROBBINS Bell Phone WELLANDPORT, ONT



Mildred Pietertje Abbekerk (World's Champion 4-year-old)

Butter in 7 days, 32.61 lbs.; milk in 7 days, 856.9 lbs.
Milk in 30 days, 3,570.7 lbs.; milk in 45 days, 4,976 lbs.
Best day's milk, 127.50 lbs.

She holds all 4-year-old milk records from one to forty-five days.



Het Loo Pietertje (World's Champion Junior 2-year-old)

(Photograph taken at 1 year and 8 months)

Butter in 7 days, 30.32 lbs.; milk in 7 days, 578 lbs.
Butter in 30 days, 122.01 lbs.; milk in 30 days, 2,362.6 lbs.
Butter in 60 days, 223.28 lbs.; milk in 60 days, 4,561.1 lbs.

She holds all junior 2-year-old butter records from seven to sixty days.

SMASHING WORLD'S RECORDS

It's not such "a long, long way" from the 1916 to the 1917 Exhibition, but then, a lot of things can happen, even in this short space of time. One year ago the "Roycroft" herd of purebred Holsteins were just nicely getting established; to-day, in only one short year, "Roycroft" holds more world's records for production than any other herd of its size on the North American continent. Seems almost incredible, doesn't it? But then, it's the truth.

The accompanying illustrations on this page, with their different inscriptions given below, tell in their own way the part three individuals alone have played in the greatest one year's advancement any one herd has seen in the history of the breed. These are, however, only "three" of a herd which numbers almost eighty head. There are almost a score more

daughters of Pontiac Korndyke of Het Loo, and, therefore, sisters of the greatest junior two-year-old the world has ever produced. There are also other thirty-pound cows, several of them, including Keyes Walker Pietertje, the 34.78-lb. 5-year-old daughter of Count Segis Walker Pietertje.

A bull from any cow in the Roycroft stables would improve most herds. You can buy more thirty-pound blood here for less money than was ever bought in New York, New Jersey, Ohio or any other State in the Union.

See them when you are in at the Exhibition. You owe this much to yourself at least.



Pontiac Korndyke of Het Loo, Sire of Het Loo Pietertje. He is sired by Pontiac Korndyke, and is the Senior Sire at Roycroft

Cars run to the farm from North Toronto every hour. Both visitors and correspondence are welcome at all times.

W. L. SHAW, Proprietor Roycroft Farm, NEWMARKET, ONTARIO



"Roycroft," Looking East From Yonge Street

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**GET YOUR
DE LAVAL
NOW**

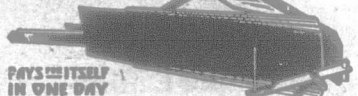
It will pay for itself by spring, and there was never greater reason to save every ounce of butterfat and half-hour of time and labor.

Moreover, if labor and material costs continue to increase, your De Laval must cost you more later on. Buy it now and it will save its own cost in a few months, at present cream and butter prices.

See the nearest De Laval agent right away and let him show you what the De Laval will save for you. If you do not know the De Laval agent, write direct for any desired information.

The De Laval Company, Ltd.
MONTREAL PETERBORO
WINNIPEG VANCOUVER

THE MARTIN
DITCHER AND GRADER
DIGS YOUR DITCHES
GRADES YOUR ROADS
EASILY
QUICKLY
CHEAPLY



REVERSIBLE
ADJUSTABLE
PAYS ITSELF
IN ONE DAY
DOES THE WORK OF 50 MEN
SEND FOR FREE BOOKLET
THE PRESTON CAR & COACH CO LIMITED
97 DOVER ST. PRESTON CANADA

THE VETERINARIAN

A valuable book which tells you all about the treatment of diseases of your live stock, given FREE with a trial ton order of

LINSEED OIL CAKE

"Maple Leaf" Brand
Write to-day for lowest prices.
The Canada Linseed Oil Mills, Limited
Toronto and Montreal

Record Holsteins

We have the only two sons in Canada of the 46-lb bull, Ormsby Jane King, only mature son of the world's most famous cow. One of them for sale. Also a 30-lb. calf, whose dam and 2 great grandams average 38.4 lbs. butter in 7 days. 11 bull calves of lesser note and females all ages.
R. M. Holtby, R. 4, Port Perry, Ont.

HOLSTEINS

Having sold my farm, I am offering for immediate sale in pure-bred Holsteins, 1 bull, 2 cows, and 1 heifer calf, eleven months. All information cheerfully given.
WM. J. ROBINSON, Florence, Ont.

REGISTERED HOLSTEINS
Pontiac Segis Avondale: Brother to the \$9,000 bull "Sir Pontiac Waldorf Pietertje", sired by a brother to K.P. Lass, 44.18; K.P. Diona Pietertje, 40.15 lbs., from a brother to dam of "Pontiac Josie", 40.14 lbs. His dam 29.89 lbs. at four years, sired by a brother to sire, "Duchess Lucy Mercedes", 46.83 lbs., from a 31.71 lb. sister to sires Segis Fayne Johanna, 60.65 lbs.; Fancher Farm Maxie, 46.84 lbs.; Mabel Segis Korndyke, 40.32 lbs. Her dam from sister sire is "Pauline DeKol Ophelia", 44.51 lbs. Stock for sale. Wm. A. Rife, Hespeler, Ont.

The Farm Labor Problem.

EDITOR "THE FARMER'S ADVOCATE":

For some years the securing of an adequate supply of farm help has been a problem of a complicated nature, and I think that most agriculturists who are obliged to rely on hired help will agree that the situation is daily becoming more acute. Last spring the call came to the farmer to utilize every available means of increasing the production of foodstuffs. And he, realizing the need, responded nobly to the request in this section, and a much larger acreage was placed under cultivation than in the spring of 1916. But, are our efforts to be in vain? The weather throughout the early summer has been most conducive to plant growth and a harvest of more than usual volume was produced but the laborers were few. The long hours and so-called drudgery of farm life have risen to their highest level. But why should the poor, humble farmer by the sweat of his brow shoulder the bulk of the burdens of this world in order that others may fatten, when our street corners are frequented by young men of more than average physical endurance, and who are indifferent to their privilege of helping to strengthen the pillars of agriculture? The direct appeal comes to them to apply themselves to the field of labor. Let them start and practice frugality and develop thrift, for thereby the speed of the wheel of industry is determined. But to continue further, it is essential that they should strive to adapt themselves to the needs of the farmer. Human nature is prone to err, and with this thought in view let us have patience with those who come within our gates.

We have had those in this vicinity who never gave any promise of becoming progressive farmers. Their soft, mellow hands were quite out of order. They were not able to distinguish between an incubator and a cultivator, to differentiate between a field sown to spring crop and a clover meadow. When you meditate upon such a monstrous lack of practical farm experience you can readily conceive of the fact that most farmers have not sufficient patience to master the situation, and as a result of this handicap many farms that were once a place of beauty have of late become an eyesore: farm buildings are rapidly depreciating in value, and fields are fast becoming polluted with weeds of the most noxious nature. Such in brief is the writer's opinion of the past and present conditions of Canadian Agriculture.

Many of the young farmers have chosen service on the battlefield of France, yea, many have paid the supreme sacrifice as a ransom to their country, and may their names remain immortal in the minds of Canadian people. But, may we see to it that the industry in which they saw service prior to their enlistment is not gambled with in this hour of national chaos when the existence of our empire is in a large measure dependent upon our ability to increase production. The opportunity is before us. Let us start with co-operation and elimination of the wastefulness of our present business system. May our government lay a firm hand upon the many profiteers who have enriched themselves at the expense of the heroes who have been laid underneath the sod of France.
Halton Co., Ont. R. LINN.

The Western Fair.

The Directors of the Western Fair to be held at London, Ont., September 7 to 15, state that the Management are making every possible effort this year to eclipse all their previous Exhibitions good as they have been. They are giving special attention to the Live Stock and Agricultural departments. Two Thousand Dollars was added to the Prize List, (which was a liberal one before) making this year's list the best ever offered, and exceedingly liberal in all departments. It is expected that there will be a large entry in all the Live Stock Classes. Special classes in the Horse Department have been provided for farmers and their sons. Professional breeders and dealers have been barred from these Classes and the farmers will have an opportunity of exhibiting against farmers. There are also plenty of classes for the professionals with liberal prizes offered. Prize Lists, Entry forms and all information promptly given on application to the Secretary A. M. Hunt, London, Ontario.

Low Banks Farm The Great Pontiac Korndyke KENMORE

He stands alone and supreme—without peers, without superiors. High on a pinnacle of proven greatness. The greatest daughters of any sire living or dead. The greatest sons of any sire living or dead. The greatest granddaughters of any sire living or dead. "Fairview Korndyke Boy," our senior herd sire, is a son of "Pontiac Korndyke," from a daughter of the same sire, and he is proving his relationship to his noted sire, as his first ten daughters, at an average age of 2 years and 17 days, have made average records of 19.64 lbs. butter, 436 lbs. milk in 7 days. Four made over 20 lbs., including one year-old.

We have only two sons of "Fairview"—left, both nice, straight, deep-bodied fellows. One from a 30.14-lb. dam, and one from a 26.3-lb. 4-year-old. We also have two sons of "Sir Echo" (three-fourths brother to "May Echo Sylvia"), from a 22.57-lb. daughter, and the other from a 20.59-lb. daughter of "Fairview." Both are beautiful individuals.

K. M. DALGLEISH

CHOICE YOUNG HOLSTEIN SIREs

I am offering a few choice young bulls at bargain prices. These are growthy, healthy, and great individuals. While the bargains last is the time to purchase. Write for prices, extended pedigrees and full information. Kindly give me an idea of the age of the bull that you would require. Correspondence solicited.

Oak Park Stock Farm - R. R. 4, Paris, Ont. - W. G. Bailey

Sunnybrook Farm Holsteins

SELLING QUICKLY—A limited number of young bulls and heifers from approved cows, testing 18 to 30 lbs. in 7 days, and averaging from 7,000 to 12,000 lbs. milk per annum, sired by Sunnybrook Mercedes Natoy, whose dam is a 29.34-lb. cow, and Count Favorit Sylvia Segis, highly strained in blood of the world's record cow. **DON'T MISS THIS OPPORTUNITY.** Write—

JOS KILGOUR, Eglinton, Ontario; or Phone Toronto, Belmont 184, Adelaide 3906

Clover Bar Holstein Bulls

AT PRICES YOU CAN AFFORD TO PAY—Of the several youngsters we now have coming on to serviceable age everyone is a choice individual and everyone is sired by our senior sire Francy 3rd's Hartog 2nd, the noted son of the famous old Francy 3rd and Canary Mercedes Hartog. The records of his dam and sire's dam averaging 31.87 lbs. of butter in 7 days and 102 lbs. of milk in 1 day. We also have females at right prices. See the Clover Bar Herd before buying.
P. SMITH, PROPRIETOR, R. R. NO. 3, STRATFORD, ONTARIO.

MAPLE LODGE HOLSTEINS

Pontiac Korndyke has proven himself through his daughters to be the greatest bull the world has ever produced. King Segis is acknowledged to be the greatest sire of transmitting sons in the world. It was the combination of the blood of these great sires that produced the bull that at 5 months old, sold for \$53,200 at public auction. This is the color of the blood combined with that of King Walker that flows through the veins of Walker Korndyke Ladd, the young sire who heads the herd at Maple Lodge. Secure a son of this bull for your next herd sire.
Jos. Howard, Cookstown, Ont.

SPRUCE GROVE HOLSTEINS

3 choice bulls for sale, 7, 10, and 13 months, by our herd sire, May Echo Champion, brother to May Echo Sylvia, world's record cow for milk, 41 lbs. butter, 7 days, from daughters of 33.81 son of King Segis, brother to sires of 3 world record cows. Write for information, or come and see. Three miles north of Toronto. Farm near stop 35 Yonge St. Radial.
Geo. Cooper, Willowdale, Ont.

HIGHLAND LAKE FARMS

SOME OF THE BULLS WE HAVE FOR SALE AT ATTRACTIVE PRICES
1. Born May, 1917, two nearest dams average 35.62 lbs.
2. Born March, 1917, two nearest dams average 34.16 lbs.
3. Born March, 1917, two nearest dams average (one at 3 yrs.) 34.23 lbs.
4. Born March, 1917, two nearest dams average (one at jr. two yrs.) 33.12 lbs.

These are sons of Avondale Pontiac Echo, our herd sire (under lease) a son of May Echo Sylvia, the world's record cow. Only one other 41-lb. bull in Canada. Send for extended pedigrees and prices on these and others, a few of serviceable age, one from 111-lb. cow. We guarantee satisfaction. Twenty-five females for sale.
R. W. E. BURNABY (Farm at Stop 55, Yonge St. Radial) JEFFERSON, ONT.

Record Breeding and Great Individuality

In all probability your next herd sire must have both. No wide-awake Holstein breeder to-day can afford to use anything but the very best of sires. Our present offering of young bulls from daughters of Lewis Prilly Rouble Hartog, and sired by Baron Colantha Fayne, will improve most herds. Several are old enough for service. Get our prices and come and see them.

T. W. McQUEEN, Orford Co., TILLSONBURG, ONTARIO

Hospital for Insane--Hamilton, Ont.

Present offerings are 4 grandsons of Dutchland Colantha Sir Mona, and high-testing, large-producing R. of P. dams of Korndyke and Aaggie DeKol breeding. Born during April and May, 1917. Apply to Superintendent.

SUMMER HILL HOLSTEINS

The only herd in America that has two stock bulls that the dam of each has milked over 116 lbs. a day, and their average butter records are over 35 lbs. a week. We have 50 heifers and young bulls to offer, by these sires, and out of dams just as well bred. We invite personal inspection.
D. C. FLATT & SON, R. R. 2, Hamilton, Ont. Phone 7165

Riverside Holsteins Herd headed by "King Johanna Pontiac Korndyke" a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 156.92 in 30 days—world's record when made. His ten nearest relatives have official record that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R of P. cow of Canada was bred here. Choice young bulls for sale.
J. W. RICHARDSON, R. R. No. 2, CALEDONIA, ONT.

DUMFRIES FARM HOLSTEINS

175 head to choose from. Special offering—bulls from one month to one year old. Grandsons of Prince Aaggie Mechthilde. Visitors always welcome.
S. G. & ERLE KITCHEN, ST. GEORGE, ONT.

SILVER STREAM FARM HOLSTEINS

Present offering:—One bull, fit for heavy service—a straight and good individual of richest breeding. Sire's six nearest dams average 30.10 lbs. butter in 7 days; his dam's sire's five nearest relatives average 31.31 lbs. butter in 7 days. Anybody wanting a well-bred sire at a moderate price, write at once.
J. MOGK & SON, INNERKIP, PHONE 1 ON 34, R. R. NO. 1, TAVISTOCK, ONT.

EVERGREEN STOCK FARM REGISTERED HOLSTEINS

Just now we are offering a very choice young bull, five months old, whose five nearest dams average over 30 lbs. of butter in seven days and 100 lbs. milk in one day. Also another bull call whose dam was the top-price cow in the Woodstock Sale. Bell phone.
A. E. HULET, NORWICH, ONT.

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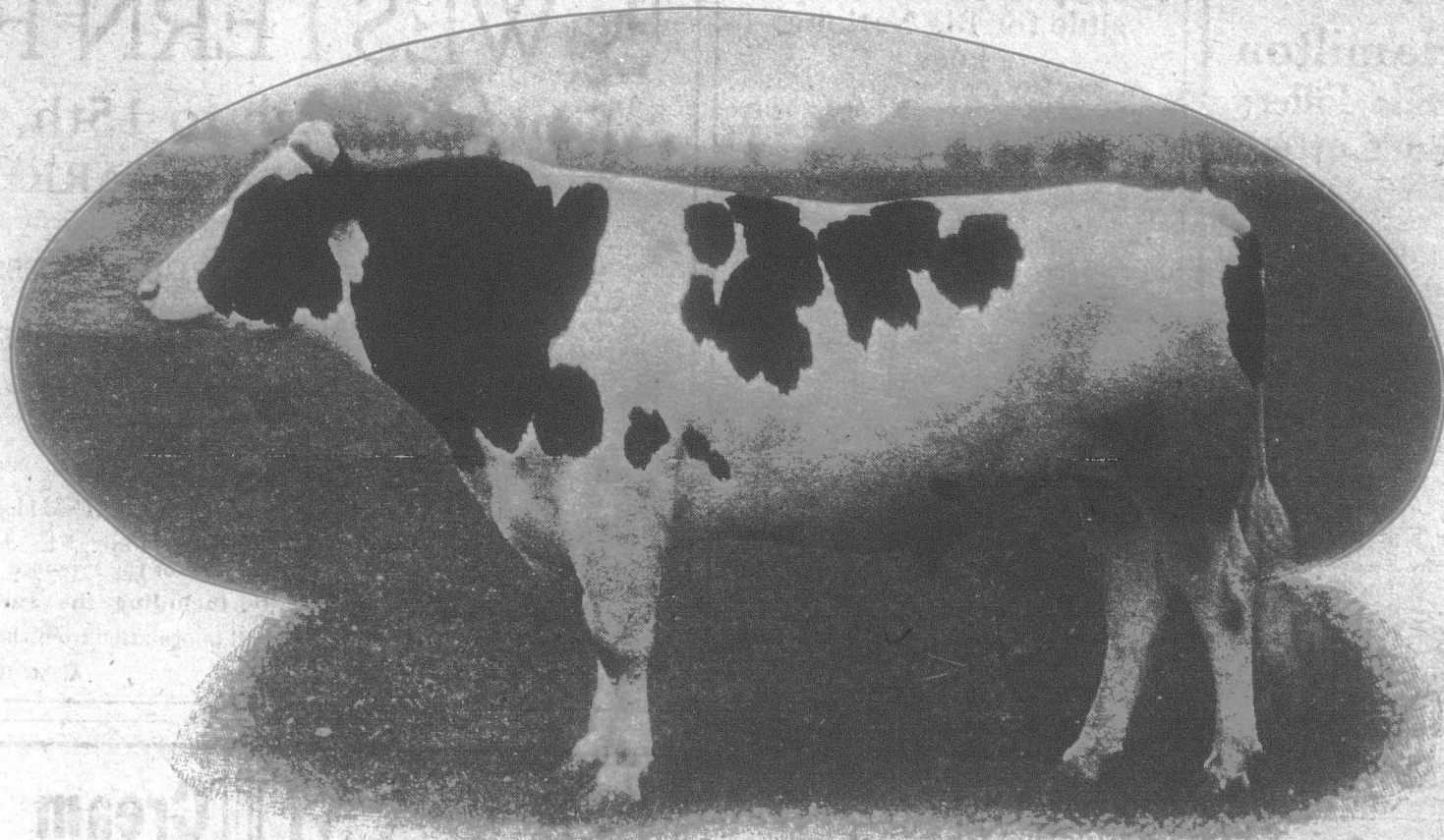
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KING SEGIS PONTIAC POSCH. No. 16627 G.H.B. (No. 112517 A.H.F.B.)
SIRE—King Segis Pontiac Alcartra (the \$50,000 Sire). DAM—Fairmont Netherland Posch, 32.59 lbs. (at 4 yrs.)

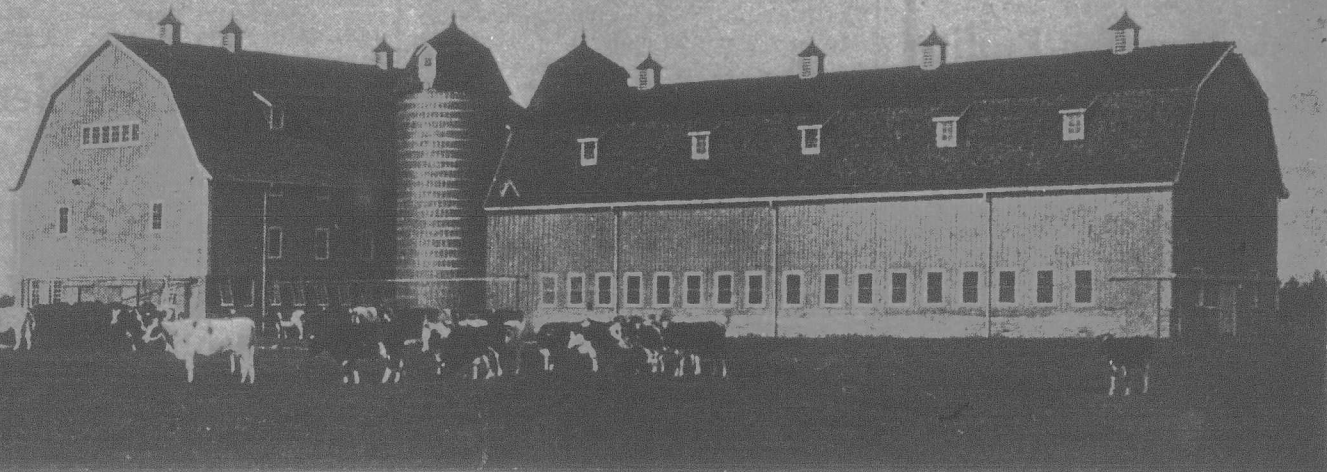
King Segis Pontiac Posch

See him and his get at Toronto and London Exhibitions

Ninety per cent of all individuals that make up my 1917 exhibit were bred at Manor Farm and one hundred per cent of these are by my senior sire, King Segis Pontiac Posch No. 16627 C.H.B., (No. 112517 A.H.F.B.) See him at Toronto and London; come and have a chat with him; see the milking characteristics of his offspring. He will be delighted to see both old and new faces, so don't forget the date: Toronto, August 25th to September 10th; London, September 7th to September 15th.

N.B. There are a number of other daughters and a few sons of "King" that will not be out this year. After you have seen my Toronto exhibit and the Exhibition, run up to Clarkson and see them. You will be pleased with these and it will make your trip complete.

GORDON S. GOODERHAM MANOR FARM CLARKSON, ONT.

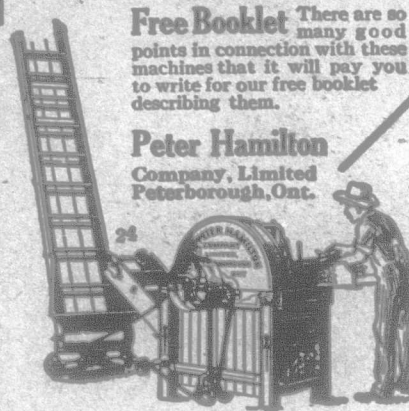


THE HOME OF THE MANOR FARM HERD

Peter Hamilton Carrier Silo Filler and Feed Cutter

If you have a gasoline engine, why not fill your own silo and cut your own feed? We have a machine which your engine will run in an efficient manner, and which will answer all your feed-cutting requirements.

PETER HAMILTON machines have tremendous strength and great capacity. They will cut up an enormous pile of feed in a day, and because of their shearing method of cutting only a small amount of power is required.



Free Booklet There are so many good points in connection with these machines that it will pay you to write for our free booklet describing them.

Peter Hamilton
Company, Limited
Peterborough, Ont.

High-class Jerseys

FOR SALE

Two young bulls 1 year old—can win in any show ring—sired by Brampton's Ruby's Noble 6005 imp. and Brampton's Eminent Fox 953. Grandsires, "You Will Do" and "Flying Fox." The dam of one of these young bulls gave 50 lbs. milk a day on grass alone. Price \$75.00 each; 17 registered Jersey cows; every one a real dairy cow; some would make show animals; some have records of 60 lbs. milk a day; also three bull calves. Full sisters of those cows, bred by me, won silver cup and all other Prizes at Public Test, Peterboro Exhibition, September, 1916. One of the greatest families to produce females. Spy of Oakdale and her daughter produced nearly 100 females during last 16 years. Nine full sisters on test for the last year averaged over 5 per cent. butter-fat.

For prices of cows and fuller particulars write:

T. J. HETHERINGTON
Peterboro', Ont.

TWENTY FIVE YEARS BREEDING Registered Jerseys and Berkshires

We have bred over one half the world's Jersey Champions, for large yearly production, at the fall. We bred and have in service, the two grand Champion Berkshire boars. If you need a sire for improvement, write us for literature, description, and prices.

HOOD FARM, LOWELL, MASS.

Fernbrook Ayrshires

Young bulls for sale (out of R.O.P. dams) from one to fifteen months old; tracing closely to the world's champions, Garclough May Mischief and Jean Armour.

COLLIER BROS., Beachville, Ont.
(OXFORD COUNTY)

Every farm should have an
AYRSHIRE
The Cow for Profit
WRITE
Canadian Ayrshires Breeders' Association
W. F. STEPHEN, SECRETARY-TREASURER
HUNTINGDON, QUE.

Glencairn Ayrshires Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick, Rockton, Ont., Copetown, Stn., G. T. R.

Choice Offering in Ayrshires At Special Prices. Several young bulls of serviceable ages. All from R. O. P. sires and dams. Come and see them.
Jno. A. Morrison, Mount Elgin, Ontario.

CITY VIEW AYRSHIRES

We want a new herd bull. A short description; give numbers of sire and dam must have official records.
James Begg & Son, R. R., St. Thomas.

Poultry Diseases Responsible for Big National Loss.

At least fifty per cent. of the chickens, young ducks and turkeys and ten per cent. of the adult birds die each year from diseases, many of which are preventable. This is an annual national loss of probably millions of dollars that could be avoided to a large extent.

War conditions make it imperative that farmers and poultrymen, as far as possible, stop this enormous leak and in order to assist in this connection Dr. Wickware suggests that every breeder pay strict attention to the general conditions of his flock in order that any ailing birds may be immediately isolated. When anything unusual is noted in a fowl, it is advisable to place the affected individual in separate quarters. If within a short time recovery does not take place, it is unwise to destroy the fowl without first ascertaining the cause of the disorder. The prevalence of diseases is more often the cause of the poultry-keeper's failure than is the lack of practical knowledge. The extreme importance of keeping the quarters clean; isolation of all ailing fowls and immediate action in regard to finding out the cause cannot be too strongly impressed upon the poultryman.

When trouble occurs, forward to the Biological Laboratory, Central Experimental Farm, Ottawa, Ont., a live but sick fowl, or in the absence of such, a dead bird. In the interval, disinfect the quarters, runs, drinking fountains and feed dishes to check the spread of any infectious disease.

Disinfect the poultry houses by spraying the interior with a limewash solution (50 lbs. stone lime slacked in a barrel of water plus one gallon of a good commercial disinfectant.) Fill cracks and crevices to destroy mites, lice, etc. If a smaller amount is required it may be prepared by adding two and a half pounds of lime to a pail of water plus half a teacupful of disinfectant.

Keep a crop growing in some part of the yards and alternate poultry and crops. If the runs are small cover with a coating of air-slacked lime and dig up. If the runs are too large to dig, plough and cultivate before sowing. Rape sown in the early part of the summer, after the breeding season, or early in September makes a good crop for this purpose. Rear all chicks on fresh soil.

Although these precautions may appear unnecessary it is the only way of combatting many disease conditions affecting poultry, which, if left to themselves will undoubtedly prove decidedly costly in the long run.—Experimental Farms Note.

Gossip.

Clover Bar Holsteins.

It was a busy time between haying and harvest when a representative of "The Farmer's Advocate" called at "Clover Bar Farm", the beautiful home of Peter Smith of Perth County. The farm is well kept and the buildings are extensive. Mr. Smith is known to "The Farmer's Advocate" readers as the proprietor of the splendid Clover Bar herd of pure-bred Holsteins. At the time of our visit the herd numbered around fifty head, and in service as the chief sire was the noted three-year-old son of the famous Franc 3rd, Franc 3rd's Hatog 2nd. He is a bull of exceptional scale, smooth and straight, and, while he has never been shown he will, with a year more age, look real promising in the Toronto line-up, providing, of course, Mr. Smith can be induced to bring him out. His sire is Canary Mercedes Pietertje Hartog 7th, a son of Royalton De Kol Fern 34.60 lbs., which makes the records of Franc 3rd Hartog 2nd's dam and sire's dam average 31.87 lbs. of butter in 7 days. They also average 102 lbs. of milk for one day. Every young bull now at Clover Bar with one exception is by this sire. Extended pedigrees of these will be mailed to all on application. Those of our readers who will be looking for a young sire this fall should write for Mr. Smith's list at once. Every thing has been bred on the farm and from the pedigrees it will be seen that the records of the dams of these youngsters compare favorably with many herds much larger in numbers, and speaking of the yearly records most of them were made on twice-a-day milking. Mr. Smith's address is Stratford, R. R. No. 3, although the farm is near Sebringville station.

The WESTERN FAIR

September 7th to 15th, 1917

LONDON, ONTARIO

THIS WILL BE THE GREAT JUBILEE YEAR

1867—A HALF CENTURY OF SUCCESS—1917

\$32,000 In Prizes and Attractions

The GREAT LIVE STOCK EXHIBITION of Western Ontario

Send your entries in early.

Wonderful programme of attractions, including a number of

MILITARY MANOEUVERS and the great MILITARY RIDE

Motion pictures by the Ontario Government showing the developments being made in the different parts of the Province

Several Bands in attendance daily, including the Juvenile Pipe Band

Prize Lists, Entry Forms, and all information from the Secretary.

LT. COL. W. M. GARTSHORE, PRESIDENT

A. M. HUNT, SECRETARY

CREAM

We are open to buy cream both for churning and table use.

ASK ANY SHIPPER

about our service and prompt returns.

Ask for Prices.

The figures of yesterday may be TOO LOW for to-morrow. We furnish cans.

The Toronto Creamery Co., Limited
Church Street, Toronto

Cream Wanted

Ship your cream to us.

We pay all express charges. We supply cans.

We remit daily. We guarantee highest market price.

Ontario Creameries, Limited
London, Ontario

Jersey Cattle by Auction

Tuesday, Sept. 11, 1917

Fifty-six head Registered Jersey cattle of the celebrated St. Lambert—Flying Fox strain. Headed by the grandly-bred 2-year-old bull, Leon's Gamboge 8040 (Flying Fox Gamboge Knight), whose dam tested, when 3 years old, 8,618 lbs. milk and 617 lbs. butter; grandam tested 737 lbs. butter, 11,208 lbs. milk, and great-grandam tested 24 lbs. 13 ozs. butter, 7 days; 713 lbs. butter one year.

Twenty-five cows in milk, good milkers with sound udders. Nine fine 2-year-olds bred. Ten good yearlings and eleven extra fine heifer calves sired by Leon's Gamboge.

On account of the ill-health of the owners, who are giving up farming and stock-raising, their fine farm, "Bellevue Heights," is offered for sale, consisting of 300 acres of the finest land in the Eastern Townships, 200 acres under cultivation, 75 acres of woods, all kinds of timber, 1,200 maple trees. Pleasantly situated, overlooking Lake Massawippi, on the Sherbrooke-Boundary Gravel Road.

Sale to take place on the farm, two miles north of Massawippi, 4 1/4 miles south of North Hatley, on the Boston & Maine Ry., connecting with Grand Trunk and Canadian Pacific Ry. at Sherbrooke.

Sale Tuesday, 11th September, 10 a.m. Lunch at noon.

For terms and other information, apply to

Geo. W. A. Reburn, R.R. No. 1, North Hatley, Que.

THE CANADA'S MOST BEAUTIFUL JERSEY HERD
WOODVIEW FARM JERSEYS
The foundation of this herd is made up of very high-class cows, imported from the Island of Jersey, most of them in the Record of Performance, and while we have, at all times, a few mature cows for sale, we make a specialty of in-calf heifers and young bulls. Write us your wants, or better still, come and see the herd. We work our show cows and show our work cows.
LONDON, ONTARIO
John Pringle, Prop.

Edgeley Stock Farm The home of Canada's greatest producing Jersey. SUNBEAM OF EDGELEY, the Sweepstakes Dairy Cow at the recent Guelph test; is also the champion R. O. P. butter cow for Canada. Would a grandson or great-grandson of this famous cow improve your herd? We have them. Write for particulars.
JAS. BAGG & SON, WOODBRIDGE, C.P.R.—CONCORD, G.T.R. EDGELEY, ONT.

Tauwa Farm Jerseys and Chester Whites
We are now offering an imported bull four years old, and several good young bulls out of imported sires and dams; also twenty choice big-type boars of May farrow. Send for photos and prices.
JOHN ANNESSER, TILBURY, ONT.

Young BRAMPTON JERSEYS Bulls
For the next fortnight we are making a special offering on young bulls, bred from the highest producing families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.P. records, save one. Females, all ages, also for sale. **B. H. BULL & SON, BRAMPTON, ONTARIO**

Glenthurst Ayrshires For 50 years I have been breeding the great Flot 60-lb. cows. I have lots of them get 60 lbs. a day on twice-a-day milking. Young bulls 1 to 10 months of age, females all ages. If this kind of production appeals to you, write me.
James Benning, Williamstown, Ont.

KELSO FARM R.O.P. AYRSHIRES
Herd headed by Palmerston Speculation Imp. We never had a stronger line-up of R.O.P. producers than we have at present. Our 1917-1918 young bulls are sure to please. Get a line on these early correspondence answered promptly.
D. A. Macfarlane, Cars Crossing, G.T.R., Athelstan, N.Y.C. Kelso, Quebec.

All cows give some
MILK

Well fed cows of course give

MORE MILK

but cows fed COTTON SEED

MEAL give the

MOST MILK

and do it at less cost per pound.

COTTON SEED MEAL

When carefully selected, such as our BRANDS are, is the most economical and most satisfactory concentrate on the market. It is rich in protein, and offers it to the animal in a highly palatable and digestible form, and cows need protein to produce the maximum amount of milk. A scientific dairyman will always include in the ration sufficient cotton seed meal. More natural farm roughage and less grain products can be used. Ask your Experiment Station.

OUR BRANDS:

Owl Brand	Dove Brand	Jay Brand	Fox Brand
41-43% Protein	38 1/4-40% Protein	36-38% Protein	Feed Meal Protein 20-22% Pro.

All selected quality—Cotton seed meal is our specialty and has been for forty years. Come to headquarters.

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CHAMPION OXFORDS OF AMERICA
Summerhill Stock Farm

For size, quality and breeding, our Oxfords cannot be excelled. Our flock has won the Chicago championship yearly, since 1910, and the championships at all the leading fairs of Canada since the flock was established, in 1879. We have for sale 20 yearling rams and 30 ram lambs (flock headers), fifty yearling ewes and fifty ewe lambs, all sired by the best rams obtainable. Write and let us know what your requirements are. Prices reasonable.

Peter Arkell & Sons, R.R. No. 1, Teeswater, Ont.
H. C. Arkell, W. J. Arkell, F. S. Arkell.

OXFORDS AND SHROPSHIRE
A choice lot of ram lambs of both breeds. Also six yearling Shrop, ewes, twenty Shrop, ewe lambs. A few Oxford ewe lambs, also yearling and two-shear ewes.
Adam A. Armstrong, Box 402, Fergus, Ontario

Leicester Sheep

RAMS AND EWES FOR SALE
C. E. WOOD FREEMAN, ONT.
Burlington Sta., G.T.R.

Leicesters and Shorthorns

A fine lot of yearling rams and ram lambs for sale. Also a number of Shorthorn heifers of breeding age.
Geo. B. Armstrong, R.R. No. 1, Teeswater, Ont.

Gossip.

Romney Sheep Coming to Canada.

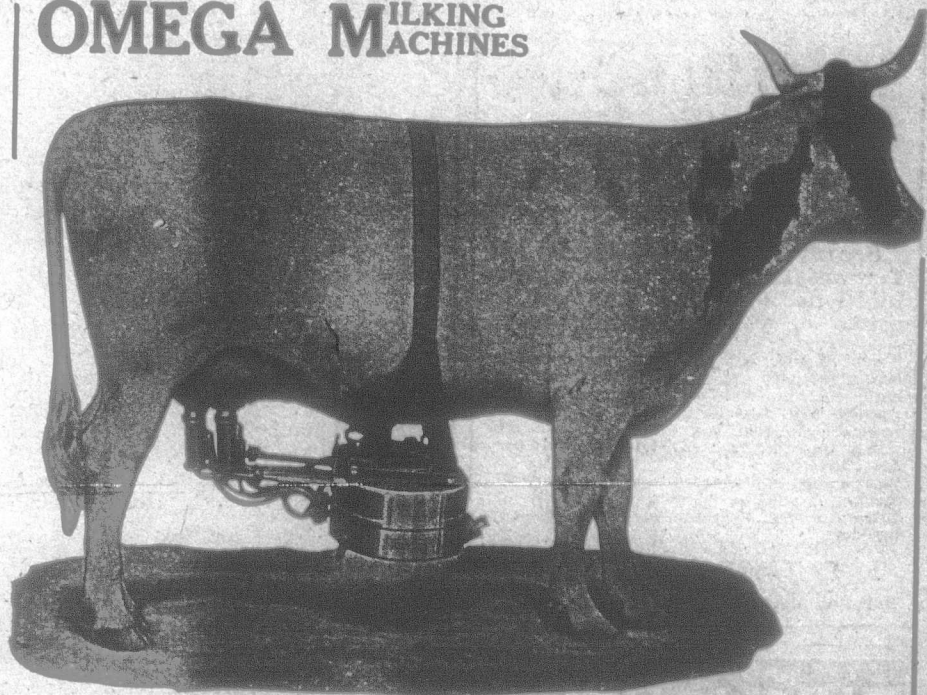
While visiting ranches and sheep farms in the vicinity of Lethbridge, Alta., last spring, J. H. Patrick, of the firm J. H. Patrick & Son, Ilderton, Ont., was very favorably impressed with the hardiness and vigor of Romney lambs being dropped there at that time. The crop was sufficiently large to warrant the expectation that 1 1/2 lambs per ewe would be raised, and the young ones were so hardy and active that Mr. Patrick saw great possibilities for this famous English breed of sheep in Canada. After due consideration the firm in mention decided to give expression to their faith in the Romney by making a large importation, and about September 1, if the perils of the sea are escaped, 325 individuals of this breed will be landed on Canadian soil. Of this number, 300 are yearling ewes and 25 are yearling rams. In order to establish the Romney as a popular Canadian breed of sheep, Messrs. Patrick will offer a number of these to buyers, that several breeders may be able to cater to the growing trade in the United States and Western Canada. The sheep have been selected from the best flocks in England and some are Royal Show winners. Expense has not been spared to make this, the first importation by the Patrick firm, one that will do justice to the breed. Owing to the restrictions in Britain on the feeding of grain to live stock, this importation has not been grain-fed in the Old Country, and it was difficult enough to obtain small quantities to feed during the voyage, but the exporters have guaranteed they will be in good condition, such being a virtue of the Romney—they thrive well even on poor rations.

The Romney in England is called the Kent or Romney Marsh sheep. In New Zealand it is officially called the Romney Marsh. As it is not a Marsh breed, according to the American interpretation of the word Marsh, that portion of its ancient name has been dropped. The marshes of Romney were drained ages ago and are among the finest pasture lands in the world. The Romney is a very ancient breed of sheep inhabiting Southern England, being famed especially in Kent and on the wide pastures of the drained marshes of Romney. It is a white-faced breed, resembling the Lincoln somewhat, though with shorter and denser fleece. For long they have been bred for hardiness and ability to fatten on grass alone. This inherited characteristic now renders them exceedingly valuable to sheep raisers, and being particularly resistant to parasites they cannot fail to make good where given half a chance. Among the overseas countries New Zealand has led the way in the adoption of this breed, but Australia and South America soon followed. The mutton has a good admixture of lean and fat and the lambs are of such a size as to please the market. Pastures can be stocked heavily with this breed which yields a large quantity of mutton and wool per acre. It is important that sheep raisers do not overlook this importation. If possible make it a point to inspect the flock and study the breed at first hand. Messrs. Patrick will welcome visitors and correspondence.

The National Dairy Show.

The National Dairy Show will this year be held at Columbus, Ohio, October 18 to 27 inclusive. It is to be bigger all round than any previous event of its kind, including more exhibits in all departments of the great exhibition. The message sent out by the management reads: "Despite the turmoil of war, the dairy cow which produces eighteen per cent. of the food of the civilized world is placidly and patriotically going about her business. She must be given every assistance possible by mankind at this crucial moment of the world's history." A mammoth new coliseum has been erected by the State of Ohio, on the State Fair grounds at Columbus, especially to house this show, affording better facilities than ever. Canadian dairymen have patronized the National Dairy Show in the past and should do so again this year. All information with regard thereto can be obtained from W. E. Skinner, the Secretary and General Manager.

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Omega Milks Fast and Clean

No Tainted Milk No Rubber Connections

The Omega milking machine draws the milk from the teats by a gentle alternating motion, similar to hand action, and conducts it to the pail through short, stiff, transparent celluloid tubes. The pail and the teat-cups are suspended from the back of the animal. The pail cannot be knocked over and the milk spilled, and the teat-cups cannot fall on the stable floor and suck up straw or manure. The Omega is

Sanitary, Efficient, and Easily Cleaned

There are no corners and no rubber tubes to harbor fermenting particles of milk in the Omega. The Omega has few parts, and is as easily and quickly cleaned as a milking pail. At official government tests the Omega was the only machine that milked faster and cleaner than by hand. The Omega in a 17-day test on 10 cows, compared with the 17 previous days, increased the total amount of milk given by 3%. This test was conducted by Prof. Leitch, of O.A.C., Guelph.

Users Prize the Omega

Mr. R. R. Ness, of Howick, Que., the noted breeder and importer of Ayrshire cattle (whose cow is shown above) writes us regarding the Omega as follows:—"In my opinion it is the greatest boon which has ever struck our country, in the interest of the Dairy Farmer. This machine, in my mind, eliminates all the troubles and objections found in other milkers which I have had the privilege of seeing. It certainly has all other machines beaten, in point of cleanliness, with those celluloid tubes instead of rubber, the pail hanging on the cow's back, never touching the floor, the position in which the teat-cups are held, insuring the most cleanly way of milking known to-day." The Health Departments of some large cities demand the use of Omega milking machines, (and them only) as they supply milk with a minimum bacterial count. Learn more about the Omega.

Write To-day

for free booklet which fully describes the Omega and its wonderful records.

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FARNHAM OXFORD DOWNS



Flock established from the best flocks in England. Our initial importation was among the first in 1881. Having quit the show-ring, we now make a specialty of breeding animals. Special attention to flock headers. Both yearlings and ram lambs; also a few Hampshire ram lambs and one hundred superior range rams comprise our offering for the present season.

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LINCOLNS C. NICHOLSON

of Horkstow, Lincolnshire, England has for sale Pedigree Lincoln Long Wool Rams and Ewes from his world-famous flock of ALL DUDDING-BRED SHEEP. By winning the CHAMPION and "ALL" the prizes in the two-shear and yearling ram classes at the Royal Show of England, 1915, all previous records were broken. Coates Shorthorns and Lincoln Red Shorthorns also for sale.

STATION-BARNETBY

Cloverdale Shropshires and Berkshires

Forty Shearling Rams

Seventy Shearling Ewes

I have at present over 300 Shropshires, including 1917 lambs. The shearlings mentioned are a choice lot, exceptionally true to type and well grown. Nearly all are sired by the noted stock and show ram, Nock 16 Imp. In Berkshires, we have our usual offering, including a number of young sows just bred.

C. J. LANG

BURKETON, ONTARIO



ANOKA FARM SHROPSHIRE

won 11 firsts, two champions at Toronto, 1916. War conditions prevent an extensive exhibit this year, but can supply rams and ewes of same breeding at breeders' prices.
F. W. Gurney, R. R. No. 3, Paris, Ont., Brant Co.

MAPLE SHADE SHROPSHIRE

My Minton ram is proved by his first crop of lambs to be the best sire used on this flock during the past 20 years. Orders for ram lambs are already being received. If you really want a good one drop a line or have a look. NO SHEARLINGS. Will A. Dryden, Brooklin, Ontario Co., Ontario

Duroc Jersey Hogs

See my herd of Duroc Jerseys at Toronto, London and Windsor Exhibitions, and consult me as to prices of young stock for sale.

Campbell 46th, No. 3941, the grand-champion boar at Toronto and London in 1916, heads the herd. At 26 months he weighed 700 lbs. Another sire is S.S. Defender No. 5181, from imported sire and dam. I have 12 sows, 5 of which are full sisters to Flossie D., champion sow, any age, at Toronto and London last year; many of the others are from imported stock. I will be pleased to meet my old customers and to show my stock to new breeders.

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Young sows and boars from several litters just weaned.

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(Niagara District)

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Young sows bred and more ready to breed. Young pigs, pairs not akin. A number of them are sired by Curly King—9997—who has been a winner at Toronto and London the last several years. Wm. Stevenson & Son, Science Hill, Ont.

Meadow Brook Yorkshires
Sows bred for Sept. and Oct. farrow, and a few choice boars fit for service. Young pigs, both sexes and all ages. Prices right. G. W. MINERS, R. R. No. 3, Exeter, Ontario. (Huron County)

TAMWORTHS

Young sows bred for Fall farrow, and a nice lot of young boars for sale. Write
John W. Todd, R. R. No. 1, Corlath, Ont.

YORKSHIRES Sows 170 lbs. and under not yet bred. Boars 2 and 3 months, 60 to choose from. Bred from prize-winning stock, Eldon duke still at the head. Tell us your wants.
Wm. Manning & Sons, Woodville, Ontario.

Sunnyside Chester Whites and Dorsets. In Chester whites we have both sexes, any age, bred from our champions of many years. In Dorsets we have ram and ewe lambs by our Toronto and Ottawa champion, and out of Toronto, London, and Guelph winners. W. E. Wright, & Son, Glanworth, Ont.

PROSPECT HILL BERKSHIRES
Young stock, either sex, for sale, from our imported sows and boar; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right. **John Weir & Son, Paris, Ont., R. R. 1.**

Polands, Durocs and Berkshires
Young stock at all times, both sexes and all ages. Can also supply anything in Dorsets or South-downs. Everything priced to sell.
Cecil Stobbs, Leamington, Ont.

Morrison Tamworths and Shorthorns
bred from the prize-winning herds of England. Tamworths, both sexes, boars from 2 to 12 months. Shorthorn bulls from 5 to 10 months old, reds and roans, dandies. **Chas. Currie, Morrison, Ont.**

Pine Grove Yorkshires Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction.
Joseph Featherston & Son, Streetsville, Ont.

Questions and Answers.

Miscellaneous.

Larvae of Silk Worm.

What is the name of the worms enclosed?
A. J. McK.

Ans.—The worms received at this office were the larvæ of one of the giant silk worms. They are only destructive when in the larvæ stage.

Canadian Patents.

1. How do you proceed to take out a Canadian Government patent?
2. Can an article be patented in Canada and the United States? H. C.

Ans. 1 and 2 For full information regarding the Canadian Patents Act write G. F. O'Halloran, Deputy Commissioner of Patents, Ottawa.

Cow Pox.

What is the cause of small sores appearing on the teats and lower part of the cow's udder? They look like small boils and when they break a yellowish matter escapes. These sores on the teats have given trouble for a year back.
B. S.

Ans.—The symptoms are those of cow pox which is a contagious disease and causes considerable trouble. A milker can easily carry it from one cow to another on his hands or clothes. Infected cows should be milked last; in fact, they should be isolated from the rest of the herd. Dress the sores three times a day with an ointment made by mixing 4 drams of boracic acid and 20 drops of carbolic acid with 2 ounces of vaseline.

Churning Difficulties.

Why should butter take a long time to come at this season of the year? I can't get it to gather. The cows are not old milkers.
L. W.

Ans.—It is rather difficult to account for butter being slow to gather at times. In the winter it is very often attributed to cows being on dry feed. Having too much cream in the churn will also cause it, as it does not give room for concussion. It is possible to have the cream too thick as it may then foam up so that there will be no concussion. In such a case the remedy is to have less cream in the churn and probably add a little thinner cream. When the cream foams up it is due to gas-producing ferment which may be remedied by adding a handful of salt and a little warm water at 70 or 80 degrees. We have heard of oily particles forming which appear like the butter-fat in liquid form. Adding a quart or two of ice cold water will sometimes remove the difficulty. There may be something in the ripening which would make the cream rather stubborn. We believe that many of the difficulties would be overcome if the cream were pasteurized just previous to churning and then cooled to churning temperature. This may be done by putting the cream in a tin and placing it in a boiler on the stove where the temperature can be raised to 140 or 145 degrees.

Veterinary.

Lame Colt.

Yearling colt on pasture goes lame occasionally on one fore leg. At times it is all right and at times very lame. Keeps foot well forward and leg as straight as possible.
J. N. S.

Ans.—The symptoms indicate the formation of a ring bone. If the coffin joint is involved no enlargement is likely to be noticeable for considerable time. Treatment consists in blistering repeatedly. Get a blister made of 2 drams each of biniodide of mercury and cantharides mixed with 2 oz. vaseline. Clip the hair off all around the hoof for 2 inches high. Tie so that he cannot bite the part. Rub the blister well in. In 24 hours rub well again with the blister, and in 24 hours longer apply sweet oil. Turn loose in a box stall now, and oil every day until the scale comes off. Then tie up and blister again. After this blister once monthly for 2 or 3 months. If this fails to cure have a veterinarian fire and blister. It will be wise to have the colt examined by a veterinarian, as it is quite possible that our diagnosis is not correct, as it is not possible to diagnose definitely without a personal examination.
V.

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From our recent importation of sows, together with the stock boar, Suddon Terroror, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.
H. M. VANDERLIP, Breeder and Importer, R. R. 1, Brantford, Ont.
Langford Station on Brantford and Hamilton Radial.

OAK LODGE YORKSHIRE HOGS

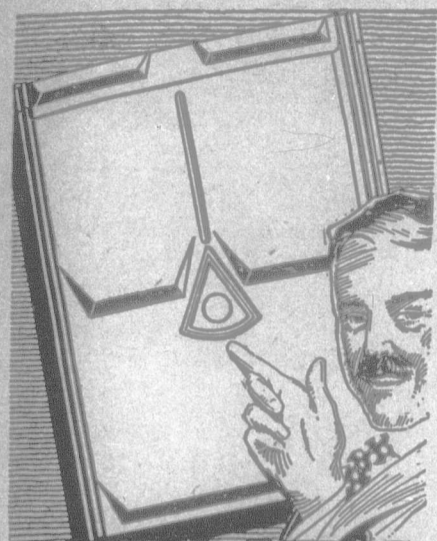
We have a large selection of extra-good boars and sows of different ages. We are selling at prices that make it attractive for the purchaser. Write for what you want.
J. E. Brethour & Nephews, Burford, Ontario.

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My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Sallys, the best strain of the breed, both sexes, any age.
Adam Thompson, R. R. No. 1, Stratford, Ont., Shakespeare Station, C.T.R.

ENGLISH LARGE BLACK PIGS

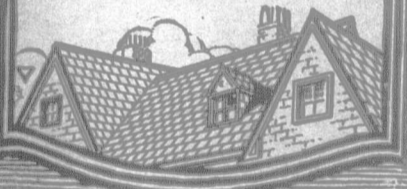
We have for sale at present some young pigs of a breed new to Canada but standardized and very popular in England, from our pure-bred imported LARGE BLACKS. Stock excellent for crossing with other breeds. Their English reputation is that they grow large and fast. Also for sale, pure-bred English Berkshires.
Lynnore Stock Farm, F. Wallace Cockshutt, Brantford, Ont.



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GIVE wind and weather a chance to get beneath the shingles of your home, and you are in for no end of trouble and expense—warping, rotting, loosening shingles—leaking roofs and endless repair. Pedlar's "Oshawa" Shingles give you the permanence of a single sheet of metal with the beauty of separate shingles. Lock tight on all four sides—windproof, rainproof, rustproof—not even the nails are visible. There's safety and permanence in a Pedlarized roof. The cost is small. Write now for "The Right Roof" Booklet L.F.

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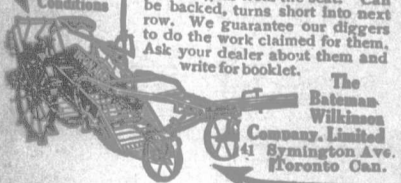


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Wheels 30 or 36 ins. Elevator, 22 or 30 ins. wide. Thorough separation without injury to the crop. Best two wheel fore truck. Right adjustment of plow, shifts in rear from the seat. Can be backed, turns short into next row. We guarantee our diggers to do the work claimed for them. Ask your dealer about them and write for booklet.



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Gossip.

Shorthorns, Shropshires and Berkshires at Cloverdale.

Three miles north of Burketon Station, on the C. P. R. main line between Toronto and Montreal, lies 150 acres known as Cloverdale Farm, the property of C. J. Lang and the home of "Cloverdale" Berkshires, Shropshires and Shorthorns. As yet the Shorthorn herd of cattle can only be said to be in its infancy, and the females, which are made up principally of the famous old Fashion family, are a small though select lot, while the herd sire, Prince Arthur, is easily one of Canada's best breeding sires. He is got by the noted sire Uppermill Omega, while his dam, Princess Royal, was got by Royal Bruce, which has sired some of the highest-priced females ever sold in Canadian auctions. In Shropshires, both in numbers and quality throughout the flock scores well up with Ontario's greatest. The numbers now run over 300 head, and the present special offering of over 40 shearing rams offer those in need of a stock ram for the present breeding season an opportunity of a varied choice from a well-bred lot. Most of these are sired by the famous champion winner, Nock 16 (imp.), as are also the seventy shearing ewes advertised. These are mostly from ewes of Campbell breeding got by the St. Louis and Chicago champions, Butters Choice and Belvoir Sirdar. In Berkshires there is very little change in the breeding stock from a year ago. The renowned Elmhurst Agusta (imp.) is still the chief sire in service, and most of the younger breeding sows are direct descendants of Suddon Vixen, the imported sow that has been in the herd for several years. She was bred by Fricker of Suddon Grange, Summerset, and her breeding is almost identical with that of the champions in England for both 1916 and 1917.

Holsteins at Tillsonburg.

Seldom are two such noted sires at the head of any one herd as those that are now doing service in the splendid herd of pure-bred Holsteins owned by T. W. McQueen, of Tillsonburg, Ont. Lewis Prilly Rouble Hartog, son of the noted sire Beauty Pieterterje and the senior sire in service has for years been one of Canada's best known sires. To say he is a 30.50-lb. bred son of Clothilde Goudgeld Hugo and has himself 31-lb. daughters is quite sufficient here for such a well-known sire. Then again, next in service for the past three years has been the other fully as noted Canadian-bred sire, Baron Colantha Fayne, which is a son of the famous Grace Fayne 2nd Sir Colantha and Queen Butter Baroness, the first 33.18-lb. butter cow in Canada, and she also the dam of Colantha Butter Girl, the Canadian butter champion senior two-year-old for 30 days, as well as Queen B. B. Fayne, the Canadian milk champion junior two-year-old for 30 days. Baron Colantha Fayne has been used exclusively on the daughters of the senior sire, and, as evidenced by a recent visit by a representative of this paper, Mr. McQueen has been getting some wonderful results from this mating. The twenty daughters of Baron Colantha Fayne, now in the herd and all from daughters of Lewis Prilly Rouble Hartog, are an exceptionally fine lot of choice, well-grown heifers, and as several will be freshening soon with their first calves we may reasonably look forward to the announcement of some very favorable new records from Mr. McQueen's herd in the very near future. The more mature cows in the herd at present already have, in nearly every instance, made very creditable records, and include such well-known cows as Princess Dixie Mercena, the grand show cow which has a 22.66-lb. three-year-old record as well as several daughters in the herd. Princess Dixie Abbekerk, a 26.64-lb. cow, combines both type and production and has been one of the best breeding cows in the herd. Her 20.94-lb. junior two-year-old daughter by the senior sire has a choice November bull calf still in the stables which is sired by Baron Colantha Fayne. He is only one of five good bulls by this sire that are now all nearing serviceable age and should be going out soon to some good herd. A further list of record cows along with their offspring will be gladly furnished by Mr. McQueen at all times on request, and a cordial invitation to visit the farm is extended to all.

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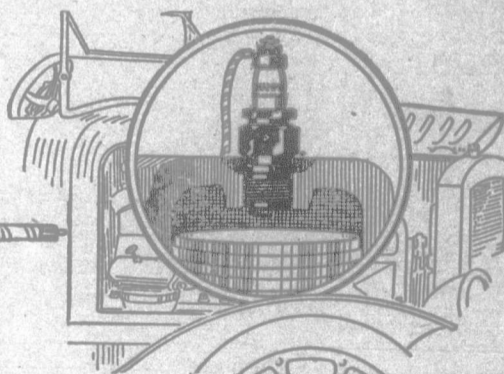
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Patented asbestos lined copper gaskets on each shoulder of the porcelains prevent loss of compression and completely absorb the shock of exploding gases in the cylinder.
Any auto supply dealer can supply you with Champions that have been especially developed for your motor or engine.
In Ford—Maxwell—Overland—Studebaker and a hundred other automobiles they are factory equipment.
Look for "Champion" on the porcelain. It means "Complete satisfaction to the user—Free Repair—Replacement or Money Back."

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WILKINSON Climax B

Ensilage and Straw Cutter

Our "B" machine, built especially for the farmer. A combination machine—it will cut and deliver green corn into the highest silo or dry straw or hay into the mow. 12-inch throat, rolls raise 6 inches and set close to knives—solid, compact cutting surface. Can change cut without stopping. Can be reversed instantly. Direct pneumatic delivery. Knife wheel carries fans. No lodging, everything cut, wheel always in balance. Steel fan case.

Made in two styles—mounted or unmounted. We also make larger type machine for custom work. Ask your dealer about this well-known machine and write us for new catalog showing all styles.

THE BATEMAN-WILKINSON CO., LIMITED
41 Campbell Ave.
Toronto, Canada



Questions and Answers. Miscellaneous.

Sharing the Farm.

If a man owns a farm could he claim it all when his wife and son have helped him for 30 years? If not, what share could they claim?

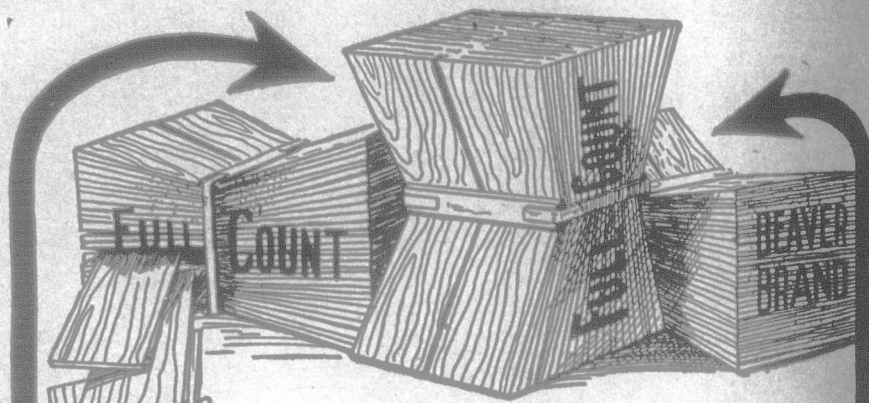
R. J. N.

Ans.—The wife cannot claim a stated sum or share of the farm while her husband is alive, but he cannot sell the property without the consent and signature of his wife. At the husband's death the wife can claim the interest of one-third of the property, regardless of a will. The son could claim wages from the time he was 21 years old.

Dates of the Fall Fairs, 1917.

The following list of the fall fairs has been issued by J. Lockie Wilson, Superintendent of the Agricultural Societies Branch of the Ontario Department of Agriculture, Toronto.

Aberfoyle.....	Oct. 2
Abingdon.....	Oct. 12 and 13
Acton.....	Sept. 25 and 26
Ailsa Craig.....	Sept. 26 and 27
Alfred.....	Sept. 18
Alexandria.....	Sept. 11 and 12
Allison.....	Oct. 4 and 5
Almonte.....	Sept. 17-19
Alvinston.....	Oct. 9 and 10
Amherstburg.....	Oct. 1 and 2
Ancaster.....	Sept. 18 and 19
Arden.....	Oct. 2
Arnprior.....	Sept. 17-19
Arthur.....	Oct. 9 and 10
Ashworth.....	Sept. 28
Atwood.....	Sept. 18 and 19
Avonmore.....	Sept. 18 and 19
Aylmer.....	Sept. 27 and 28
Ayton.....	Sept. 18 and 19
Bancroft.....	Oct. 4 and 5
Barrie.....	Sept. 17-19
Baysville.....	Oct. 4
Beachburg.....	Oct. 3-5
Beamsville.....	Sept. 21 and 22
Beaverton.....	Sept. 24-26
Beeton.....	Oct. 9 and 10
Belleville.....	Sept. 3 and 4
Berwick.....	Sept. 20 and 21
Binbrook.....	Oct. 8 and 9
Blackstock.....	Sept. 25 and 26
Blenheim.....	Oct. 4 and 5
Blyth.....	Oct. 2 and 3
Bobcaygeon.....	Oct. 27 and 28
Bolton.....	Oct. 1 and 2
Bothwell's Corners.....	Sept. 20 and 21
Bowmanville.....	Sept. 18 and 19
Bradford.....	Oct. 16 and 17
Bracebridge.....	Sept. 20 and 21
Brampton.....	Sept. 21 and 22
Brigden.....	Oct. 1 and 2
Brighton.....	Sept. 13 and 14
Brinsley.....	Oct. 2
Brockville.....	Aug. 20-23
Bruce Mines.....	Sept. 26
Brussels.....	Oct. 4 and 5
Burk's Falls.....	Sept. 27 and 28
Burford.....	Oct. 2 and 3
Burlington.....	Thanksgiving Day
Caledon.....	Oct. 3 and 4
Caledonia.....	Oct. 11 and 12
Campbellford.....	Sept. 25 and 26
Carp.....	Oct. 3 and 4
Castleton.....	Oct. 2 and 3
Cayuga.....	Sept. 25 and 26
Centerville.....	Sept. 15
Charlton.....	Sept. 26 and 27
Chatham.....	Sept. 18-20
Chatsworth.....	Sept. 13 and 14
Chesley.....	Sept. 18 and 19
Clarence Creek.....	Sept. 20
Clarksburg.....	Sept. 18 and 19
Cobden.....	Sept. 25 and 26
Cobourg.....	Aug. 24 and 25
Cochrane.....	Sept. 27 and 28
Colborne.....	Sept. 11 and 12
Coldwater.....	Oct. 2 and 3
Collingwood.....	Sept. 19-21
Comber.....	Sept. 28 and 29
Cookstown.....	Oct. 2 and 3
Cookville.....	Oct. 3
Cornwall.....	Sept. 6-8
Courtland.....	Oct. 4
Delta.....	Sept. 17-19
Demorestville.....	Sept. 29
Desboro.....	Sept. 20 and 21
Dorchester Station.....	Oct. 3
Drayton.....	Oct. 2 and 3
Dryden.....	Oct. 4 and 5
Dresden.....	Sept. 27 and 28
Drumbo.....	Sept. 25 and 26
Dunchurch.....	Sept. 28
Dundalk.....	Oct. 11 and 12
Dungannon.....	Oct. 4 and 5
Dunnville.....	Sept. 13 and 14
Durham.....	Sept. 20 and 21
Elmira.....	Sept. 14 and 15



The Roofing That IS Roofing

The wind, or the rain, or the sun will ultimately "get" your roofs if they are not covered with Nature's roofing—BEAVER BRAND White Cedar Shingles.

White Cedar Shingles GROW: they are not made up of odds and ends of junk. They are cheaper than any substitute, and will outlast all other materials used in the manufacture of roofing materials—slate excepted. Slate is another of Nature's products, and it is the best roofing in the world; next to slate come BEAVER BRAND White Cedar Shingles, made in New Brunswick, Canada, from choice, live logs, by expert sawyers.

BEAVER BRAND WHITE CEDAR SHINGLES

keep the house and barn cool in summer and warm in winter; they don't add to their cost every year with a coat of paint; their first cost is the last.

Manufactured at BATHURST, NEW BRUNSWICK, by

BATHURST LUMBER CO. LIMITED

THE SHINGLE ROOF THAT'S STORM PROOF

PURE COTTON SEED MEAL

ORDER YOUR SUPPLY EARLY
4 BRANDS TO BUY

To Feed and Fatten Your Live Stock.

"DIXIE BRAND"
Protein 41%, Fat 5.50%

4 REASONS WHY

Because Cotton Seed Meal, on account of its high protein content, is the cheapest form of concentrate the farmer can buy.

"FORFAT BRAND"
Protein 38.55%, Fat 5%

Because Cotton Seed Meal, with its high protein content, ensures a big milk flow.

"DANISH BRAND"
Protein 36%, Fat 5%

Because Cotton Seed balances the laxative properties of ensilage better than any other concentrate.

"CREAMO COTTON SEED FEED MEAL"
Protein 20 to 25%, Fat 5%

Because these brands are put up in good bags, therefore worth \$2.00 per ton more than others.

All these brands are manufactured in our own mills, and are sold by a reliable manufacturer who can give efficient service in deliveries, and guarantees satisfaction.

Write me for prices in carlots or less.

FRED SMITH, 32-34 FRONT STREET W., TORONTO

The Peerless Perfection Fence

Divides your stock and they stay where you put them. The fence that serves you for all time. Can't rust, sag or break down. Stands any weather. Each joint securely held with the Peerless lock, all parts heavily galvanized, the strongest, most serviceable farm fence made and fully guaranteed.

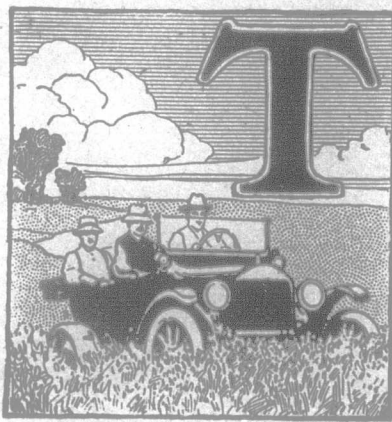
SEND FOR CATALOG of all kinds of fencing for farms, ranches, parks, cemeteries, lawns, poultry yards, ornamental fencing and gates. See the Peerless line at your local dealers. Agents wanted in open territory.

THE BANWELL-HOXIE WIRE FENCE COMPANY, Ltd.
Winnipeg, Manitoba Hamilton, Ontario

Dates of Fall Fairs—Continued.

Elmvale.....	Sept. 24-26
Embro.....	Oct. 4
Emo.....	Sept. 13 and 14
Emsdale.....	Sept. 25 and 26
Englehart.....	Sept. 20 and 21
Erin.....	Oct. 11 and 12
Essex.....	Sept. 18-20
Fairground.....	Oct. 2
Fenelon Falls.....	Sept. 14 and 15
Fenwick.....	Sept. 25 and 26
Fergus.....	Sept. 26 and 27
Feversham.....	Oct. 2 and 3
Flesherton.....	Oct. 6-8
Florence.....	Oct. 4 and 5
Forest.....	Sept. 26 and 27
Fort Erie.....	Oct. 9 and 10
Fort William and Port Arthur.....	Sept. 18-20
Frankford.....	Sept. 20 and 21
Frankville.....	Oct. 11 and 12
Freelton.....	Thanksgiving Day
Galetta.....	Sept. 26 and 27
Galt.....	Oct. 4 and 5
Georgetown.....	Oct. 3 and 4
Glencoe.....	Sept. 25 and 26
Goderich.....	Sept. 26-28
Gordon Lake.....	Sept. 28
Gore Bay.....	Oct. 2 and 3
Gorrie.....	Oct. 6
Grand Valley.....	Oct. 4 and 5
Gravenhurst.....	Sept. 27 and 28
Haliburton.....	Sept. 26
Hanover.....	Sept. 13 and 14
Harrow.....	Oct. 9 and 10
Harrowsmith.....	Sept. 20 and 21
Hepworth.....	Sept. 27 and 28
Highgate.....	Oct. 12 and 13
Holstein.....	Sept. 26
Huntsville.....	Sept. 25 and 26
Hymers.....	Sept. 14
Ingersoll.....	Oct. 1 and 2
Inverary.....	Sept. 12
Iron Bridge.....	Oct. 5
Jarvis.....	Sept. 26 and 27
Kagawong.....	Oct. 3 and 4
Keene.....	Oct. 2 and 3
Kemble.....	Sept. 27 and 28
Kemptville.....	Sept. 6 and 7
Kenora.....	Aug. 21 and 22
Kilsyth.....	Oct. 4 and 5
Kincardine.....	Sept. 20 and 21
Kingston.....	Sept. 25-27
Kinmount.....	Sept. 14 and 15
Kirkton.....	Oct. 4 and 5
Lakefield.....	Sept. 18 and 19
Lakeside.....	Sept. 27
Lambeth.....	Sept. 26
Lanark.....	Sept. 13 and 14
Langton.....	Oct. 13
Lansdowne.....	Sept. 20 and 21
Leamington.....	Oct. 3-6
Lindsay.....	Sept. 20-22
Lion's Head.....	Oct. 4 and 5
Lombardy.....	Sept. 8
London (Western Fair).....	Sept. 7-15
Loring.....	Sept. 29
Lucknow.....	Sept. 27 and 28
Listowel.....	Sept. 20 and 21
Maberly.....	Sept. 25 and 26
Madoc.....	Oct. 2 and 3
Magnetawan.....	Sept. 25 and 26
Manitowaning.....	Sept. 27 and 28
Markdale.....	Oct. 9 and 10
Markham.....	Oct. 3-5
Marmora.....	Oct. 1 and 2
Marshville.....	Sept. 20 and 21
Massey.....	Oct. 3
Matheson.....	Oct. 1 and 2
Mattawa.....	Sept. 19 and 20
Maxville.....	Sept. 27 and 28
Maynooth.....	Sept. 20
McDonald's Corners.....	Sept. 28
McKellar.....	Sept. 21
Meaford.....	Sept. 27 and 28
Merlin.....	Sept. 20 and 21
Merrickville.....	Sept. 18 and 19
Melbourne.....	Oct. 2
Metcalfe.....	Sept. 18 and 19
Middleville.....	Oct. 5
Midland.....	Sept. 27 and 28
Mildmay.....	Sept. 17 and 18
Millbrook.....	Oct. 4 and 5
Milton.....	Oct. 9 and 10
Mitverton.....	Sept. 27 and 28
Minden.....	Sept. 25
Mitchell.....	Sept. 25 and 26
Morrisburg.....	Aug. 1-3
Mount Brydges.....	Oct. 5
Mount Forest.....	Sept. 19 and 20
Murillo.....	Oct. 2 and 3
Napanee.....	Sept. 12 and 13
New Hamburg.....	Sept. 13 and 14
Newington.....	Sept. 26
New Liskeard.....	Sept. 13 and 14
Newmarket.....	Sept. 26-28
Noelville.....	Sept. 18
Norwich.....	Sept. 25 and 26
Norwood.....	Oct. 9 and 10
Oakville.....	Sept. 17 and 19
Odessa.....	Oct. 5
Ohsewakin.....	Oct. 3-5
Onondaga.....	Oct. 1 and 2
Orangeville.....	Sept. 18 and 19

A Car of Proven Quality



THE Ford car has been on the market twelve years, surely long enough to have proven its high quality. There is nothing experimental about it. Every part has stood the test of time and proven its stability with hard service. No other car has ever approached the durability records of the Ford.

No matter what price you pay for a car you cannot get one with a stancher chassis. Government Laboratory tests have shown that the different parts of the Ford car are superior to those in any other car. Ford Vanadium steel has never been equaled in strength.

If you want a car that can plow through deep mud, sand and gravel—that can cross fields, corduroy roads and ford streams—that can climb the steepest hills with ease—that will give the greatest mileage all year round with the least expense and care—then there is only ONE car for you—The Ford.



Touring - - \$495
Runabout - \$475
F.O.B. FORD, ONT.

Ford Motor Company of Canada, Limited
FORD - - ONTARIO

32

When at the EXHIBITION

Call and see THE PEERLESS Water System in operation AT OUR SHOWROOMS

THE NATIONAL EQUIPMENT CO., LIMITED
1 Wabash Ave., TORONTO

Owing to exceptionally heavy pressure of business this summer, we shall not demonstrate at the Exhibition. We are, at all times, however, glad to see those interested in Water Systems, and will be pleased to demonstrate the Peerless System.

Take Dundas cars to Sorabren Ave. Walk south to Wabash. You will find a cordial welcome at the offices of

FOR CONVALESCENTS

and those with weak stomachs, few things are more beneficial than the real beer that can be made in your own home with HOP MALT EXTRACT

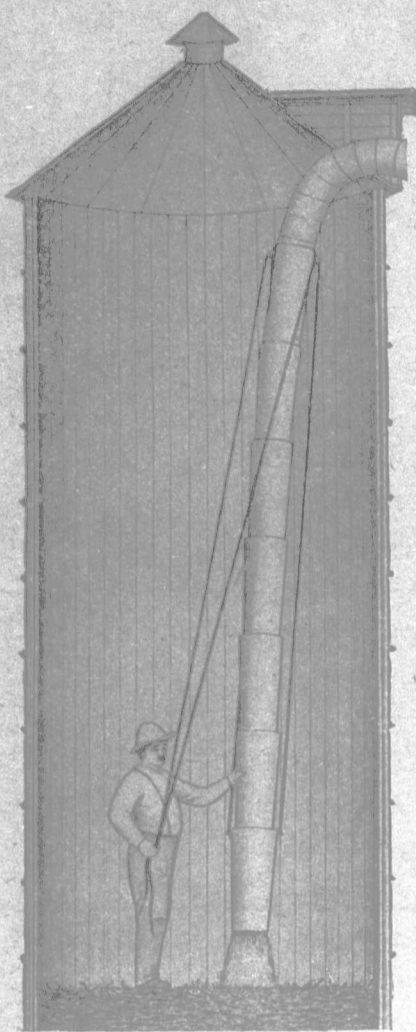
This beer is wholesome and invigorating. Anyone can make it. Small tins, \$1.00; large, \$1.50, prepaid. Agents wanted. Write at once.

DEPT. A
Hop Malt Co. - Beamsville, Ont.

You can assure your family a MONTHLY INCOME for LIFE or assure yourself an income during your old age by means of an Imperial Monthly Income Policy

Write for particulars now and mention The Farmer's Advocate. Address: Imperial Life Assurance Co. of Canada Head Office: TORONTO

The Modern Method Telescopic Silo Filler



The quality of your ensilage depends upon how it is packed. With the

TELESCOPIC SILO FILLER

one man can pack a silo better than several men without it. He will get very even distribution and have leaves, stalks and cobs thoroughly mixed. This new, improved filler is quick, clean and easy—makes better silage and increases the capacity of your silo. Write for folder and

Look us up at Toronto and London Exhibitions
SOLE MANUFACTURER
I. W. KELLY, LYNDEN, ONTARIO

Feeds

- Cotton Seed Meal
- Linseed Oil Cake Meal
- Corn Oil Cake Meal
- Gluten Meal
- Digestive Tankage
- Distillers' Grains
- Bran Shorts
- Crushed or Ground Oats
- Feed Wheat
- Re-cleaned Screenings
- Scratch Feed Laying Mash
- Fattening Mash Mill Feed
- Vim or Oat Feed, etc.

If it is anything in the feed line, we have it. In car lots or less.
WRITE OR PHONE FOR PRICES.

CRAMPSEY & KELLY
Dovercourt Road, Toronto, Ont.



Concrete Machinery for Farm Use
This latest model Hand Mixer pays for itself in 7 days. Write for Special Offer. Crushers, Brick, Block, Tile Machines, Power Mixers, etc. New and second-hand Gas Engines.
Wettlauffer Bros., Ltd.
178A Spadina Ave.
Toronto, Ont.

Dates of Fall Fairs—Continued.

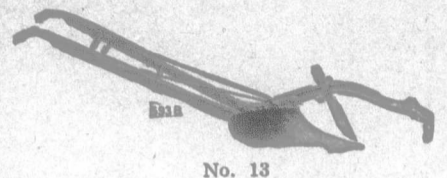
Oro	Sept. 14
Orono	Sept. 27 and 28
Orrville	Sept. 25
Oshawa	Sept. 10-12
Ottawa (Central Canada)	Sept. 8-17
Otterville	Oct. 5 and 6
Owen Sound	Sept. 11-13
Paisley	Sept. 25 and 26
Pakenham	Sept. 25
Palmerston	Sept. 18 and 19
Paris	Sept. 27 and 28
Parham	Sept. 20 and 21
Parkhill	Sept. 24 and 25
Parry Sound	Sept. 25-27
Perth	Sept. 5-7
Peterboro	Sept. 13-15
Petrolia	Sept. 20 and 21
Picton	Sept. 18-20
Pinkerton	Sept. 21
Port Carling	Sept. 19
Port Elgin	Sept. 19 and 20
Port Hope	Oct. 2 and 3
Port Perry	Sept. 13 and 14
Powassan	Sept. 26 and 27
Prescott	Sept. 18-20
Priceville	Oct. 4 and 5
Providence Bay	Oct. 4 and 5
Queensville	Oct. 9 and 10
Rainham Centre	Sept. 18 and 19
Rainy River	Sept. 18 and 19
Renfrew	Sept. 19-21
Riceville	Sept. 27
Richmond	Sept. 20-22
Ridgetown	Oct. 8-10
Ripley	Sept. 25 and 26
Roblin Mills	Oct. 5 and 6
Rocklyn	Oct. 4 and 5
Rockton	Oct. 9 and 10
Rockwood	Oct. 4 and 5
Rodney	Oct. 1 and 2
Roseneath	Sept. 27 and 28
Rosseau	Oct. 5
Sarnia	Sept. 25 and 26
Sault Ste. Marie	Oct. 3-5
Scarboro (Agincourt)	Sept. 25 and 26
Schomberg	Oct. 11 and 12
Seaforth	Sept. 20 and 21
Shannonville	Sept. 15
Shedden	Sept. 19
Sheguiandah	Oct. 1 and 2
Shelburne	Sept. 25 and 26
Simcoe	Oct. 8-10
Smithville	Sept. 18 and 19
South Mountain	Sept. 13 and 14
South River	Oct. 4 and 5
Spencerville	Sept. 25 and 26
Springfield	Sept. 20 and 21
Sprucedale	Sept. 20 and 21
Stella	Sept. 25
Stirling	Sept. 27 and 28
Stratfordville	Sept. 19
Stratford	Sept. 17-19
Strathroy	Sept. 17-19
Streetsville	Sept. 26
Sturgeon Falls	Sept. 25 and 26
Sunderland	Sept. 18 and 19
Sundridge	Oct. 2 and 3
Sutton	Sept. 20 and 21
Tamworth	Sept. 13
Tara	Oct. 2 and 3
Tavistock	Oct. 2
Teeswater	Oct. 2 and 3
Thamesville	Oct. 2 and 3
Theford	Sept. 20 and 21
Thessalon	Oct. 2 and 3
Thorndale	Sept. 24 and 25
Thorold	Sept. 18 and 19
Tiverton	Oct. 2
Toronto (C. N. E.)	Aug. 25-Sept. 10
Tweed	Oct. 4 and 5
Underwood	Oct. 9
Utterson	Oct. 2 and 3
Vankleek Hill	Sept. 19-21
Verner	Sept. 18 and 19
Walkerton	Sept. 26
Wallaceburg	Sept. 20 and 21
Wallacetown	Sept. 25 and 26
Walter's Falls	Oct. 4 and 5
Warkworth	Sept. 26 and 27
Warren	Oct. 2
Waterdown	Sept. 27
Waterford	Oct. 2 and 3
Watford	Oct. 1-3
Welland	Sept. 11 and 12
Wellesley	Sept. 14 and 15
Weston	Oct. 1 and 2
Wheatley	Sept. 25 and 26
Warton	Sept. 37
Wilkesport	Sept. 19 and 20
Williamstown	Aug. 29 and 30
Winchester	Sept. 25
Windham Centre	Sept. 24-27
Windsor	Oct. 9 and 10
Wingham	Sept. 18 and 19
Wolfe Island	Sept. 19-21
Woodbridge	Sept. 13 and 14
Woodstock	Sept. 6 and 7
Woodville	Oct. 4 and 5
Wooler	Oct. 2
Wyoming	Sept. 19 and 20
Zephyr	Sept. 19 and 20
Zurich	Sept. 19 and 20



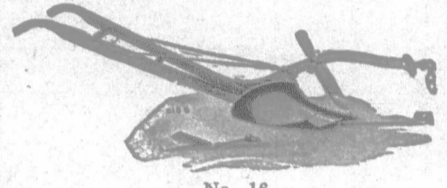
No. 21 Tinkler Wheel Plow



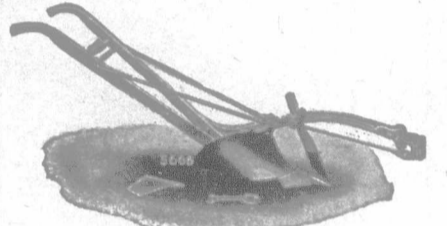
No. 21



No. 13



No. 16



No. 15A.

FAMOUS FLEURY PLOWS

For DRY and HARD Land

No. 21—The most FAMOUS PLOW in Ontario. Imitated by nearly all other manufacturers of PLOWS. IMITATIONS are generally INFERIOR, in PLOWS as in other things. Get the "ORIGINAL No. 21."

TINKLER WHEEL PLOW for the boy—or old man—or inexperienced farm hand. Will run from end to end without holding—and do PLOWING-MATCH work. A Tinkler Wheel Plow—original patented—should have a place on EVERY FARM.

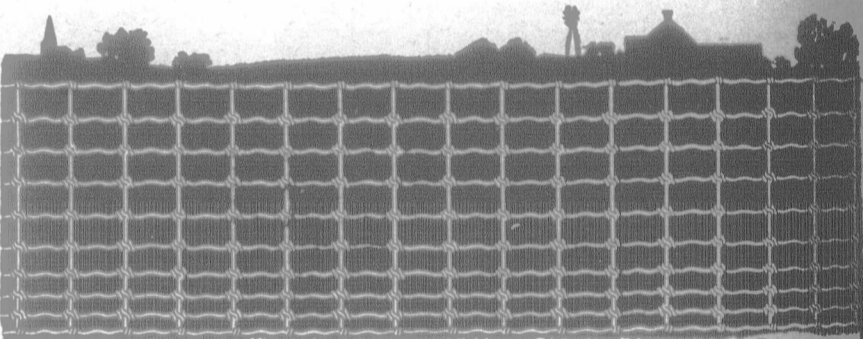
No. 13 — High-class General purpose. ESPECIALLY good in stubble. Extraordinarily light in draught.

"SPECIAL" No. 5.—Narrow, General Purpose. Fine in sod—the neatest kind of a furrow.

No. 16.—Very light, Two-horse plow. One-horse attachment if desired—ESPECIALLY adapted to orchard work.

No. 15A — One-horse Plow, unequalled. Imitated by other manufacturers—poorly imitated. No other One-horse Plow equals this in EASE and COMFORT in handling or in WORK in garden, orchard or field.

J. FLEURY'S SONS AURORA, ONT.
Medals and Diplomas, World's Fairs, Chicago and Paris



Well, Sir, that's
some fence

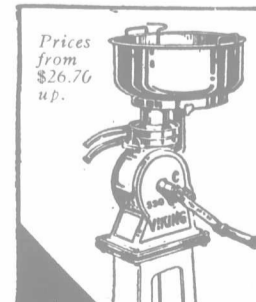
Because of its simplicity and amazing strength, "Ideal" Fence excites the admiration of every practical mind. "Some fence" is right. Take a look at it—

Ideal Fence

Notice how the Ideal lock takes a "grape-vine" grip of the upright and cross wires in a strong, even, uniform pressure. There are no sharp angular turns to break the surface of the wire and weaken the grip of the lock. Yet it grips, as you see, the wires in *five* places—twice on the upright, twice on the horizontal and again where the two wires cross. Thus, while it positively prevents either wire from slipping, it allows just enough play so the fence can be erected on hilly ground without kinking the line wires. At the same time, it keeps the uprights perfectly straight. You wonder why Ideal Fences are so free of broken or bent uprights; well, that's the reason.

May we send you a copy of our catalogue which tells the whole story in a factful interesting way? A post card will bring it promptly.

The McGregor-Banwell Fence Co., Limited, Walkerville, Ontario



Prices from \$26.76 up.

Try before you Buy

ASK any one of our dealers to let you have a Viking on 30 days' free trial, and he will be glad to do so. If you are not entirely satisfied with it at the end of that time, if you don't find the Viking "a better separator for less money," he will take it back and refund your money immediately. We consider the Viking sold for keeps only when you are pleased with it.

Descriptive booklet free. Dept. 4

SWEDISH SEPARATOR CO., 515 South Fifth Ave., Chicago, Ill.

VIKING CREAM SEPARATORS OF QUALITY (9)

Sarnia Fence at Old Price



Present Prices are Good Only Until October 1st



See Our Exhibit, Western Fair, London, Ont., Sept. 7 to 15, 1917

Sarnia Fence First Why?

Sarnia Fence is made by The Sarnia Fence Company, of Sarnia, Canada, a Canadian organization, financed with Canadian capital, marketing their entire output Direct From the Factory to the Farm, and not connected in any way by agreements with other manufacturers for the maintenance of high prices at the expense of the Canadian farmer. Our fence is sold throughout Canada DIRECT TO YOU from Sarnia.

Our policy is to sell the farmers of Canada the best fence it is possible to make at the lowest possible cost, and our fence for the season of 1917 (our customers will vouch for us), is the best Dollar for Dollar value that has ever been offered in the history of the fence business, in the Dominion of Canada.

THE SARNIA FENCE COMPANY brought the price of fence down by their method of selling direct to the farmer and is the last to advance the price.

Buy now as we can only accept orders at these prices until above date.

Following our established method we are giving you due notice before an advance in price.

If you do not want to use the fence at the present time send order and remittance and we will ship at your convenience.

By purchasing now you will be sure of your fence which you may not be next spring as there are indications of a steel famine and you may not be able to get fence at any price at that time, on account of the enormous demand for steel for war supplies.

GUARANTEE

We guarantee our fence to be made from the best galvanized hard steel wire, both stay, line wire and knot, and to be the most perfectly woven fence on the market, and of full Government gauge No. 9 wire.

Remember, We Are Not Unloading Old, Rusty Stock

Every bale of Sarnia Fence is made from new wire, and is not exposed to the weather from the time the wire leaves the mills until the fence is delivered at your station. We have adopted this policy because exposure to the weather shortens the life of the fence just as much as when erected in the field.

If the average life of a new fence is twenty years, and it is stored outside five years before being erected in your field, it will last only fifteen years, consequently it is worth only 75% of the price of a new fence.

WE SET THE PRICE, OTHERS DEVOTE THEIR ENERGY TO TRY TO MEET OUR PRICES.

Price less than carload in Old Ont. before Oct. 1

Price less than carload in Old Ont. after Oct. 1

All No. 9 Freight Paid
7-48-0-41c

NOTICE!

These prices are freight prepaid to any station in Old Ontario on shipments in lots of 200 lbs. or over. (Electric and boat lines not included).

FOR PRICES DELIVERED IN NEW ONTARIO, QUEBEC AND MARITIME PROVINCES

Add 3c. per rod to the prices of fence quoted herewith, 25c. advance for gates and stretchers, 10c. per sack of staples and 10c. per coil of brace wire.

If you are in need of any fencing it will be to your interest to purchase same immediately as these prices will advance again in the near future. Order to-day.

Remit by P. O. Order, Money Order or Bank Draft.

CASH WITH THE ORDER SAVES EXPENSE AND YOU GET THE BENEFIT OF THE SAVING IN THE PRICE.

Price less than carload in Old Ont. before Oct. 1

Price less than carload in Old Ont. after Oct. 1

10-50 HORSE, CATTLE, SHEEP and HOG FENCE. Has 10 line wires, 50 in. high, 12 stays to the rod, all No. 9 hard steel wire, spacing 3, 3 1/2, 4 1/2, 5 1/2, 6, 8, 8, 8. Weight per rod 18 1/2 lbs. Per rod

64c. 69c.

POULTRY FENCE

18-50-P STOCK AND POULTRY FENCE. Has 18 line wires, 50 in. high, 24 stays to the rod, top and bottom wire No. 9 filling. No. 13 hard steel wire, spacing 1 3/8, 1 3/8, 1 3/8, 1 3/8, 1 3/4, 2, 2 1/4, 2 1/2, 3, 3 1/2, 4, 4 1/2, 4 1/2, 5, 5, 5. Weight 12 1/2 lbs.

64c. 69c.

FENCE ACCESSORIES

WALK GATE 3 1/2 x 48	\$3.00	\$3.25
FARM GATE, 12 x 48	5.50	5.75
FARM GATE, 13 x 48	5.75	6.00
FARM GATE, 14 x 48	6.00	6.25
FARM GATE, 16 x 48	6.50	6.75
STAPLES GALVANIZED 1 3/4 in. per bag of 25 lbs.	1.30	1.40
BRACE WIRE, No. 9 Soft, per coil 25 lbs.	1.30	1.40
STRETCHER! All iron top and bottom, draw very heavy tested chain, extra single wire stretcher and splicer, the best stretcher made at any price.	10.00	10.00

MAIL US YOUR ORDER TODAY

The Sarnia Fence Company, Limited

Sarnia,

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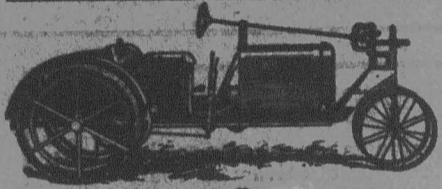
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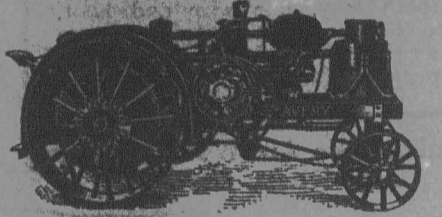
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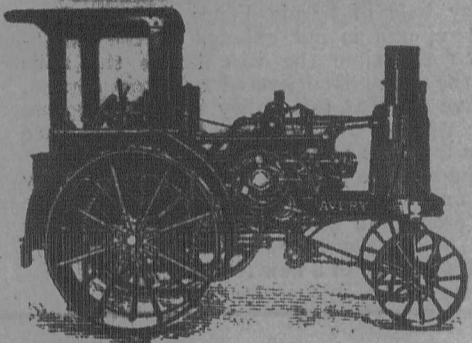


Avery Farm Tractors

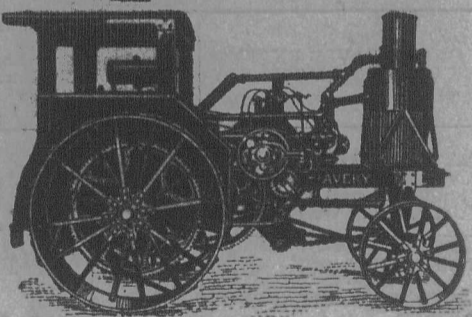
at the FALL FAIRS



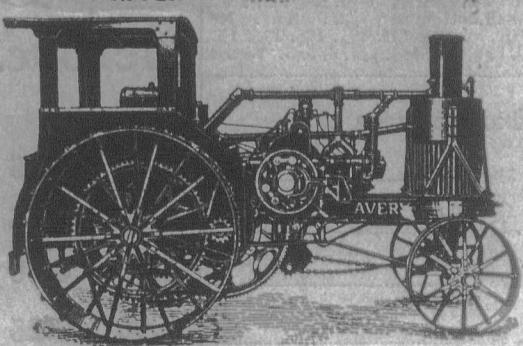
We shall exhibit and demonstrate the Avery Tractor at Toronto, London, Ottawa, Quebec and Sherbrooke Fairs. Don't miss this opportunity of "getting acquainted" with the Farm Tractor that is steadily increasing in popular favor all over Canada. Hundreds of Canadian Farmers are boosting the Avery Tractor to-day. When you have seen it demonstrated you will know the reason.



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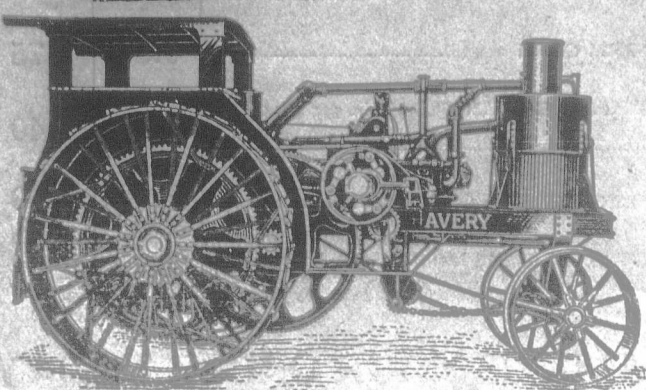


The Exhibit of Avery Tractors will be found at the rear of the Lister Tent.



N. B. We have a large stock of Avery Tractors on hand, ready for immediate delivery.

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