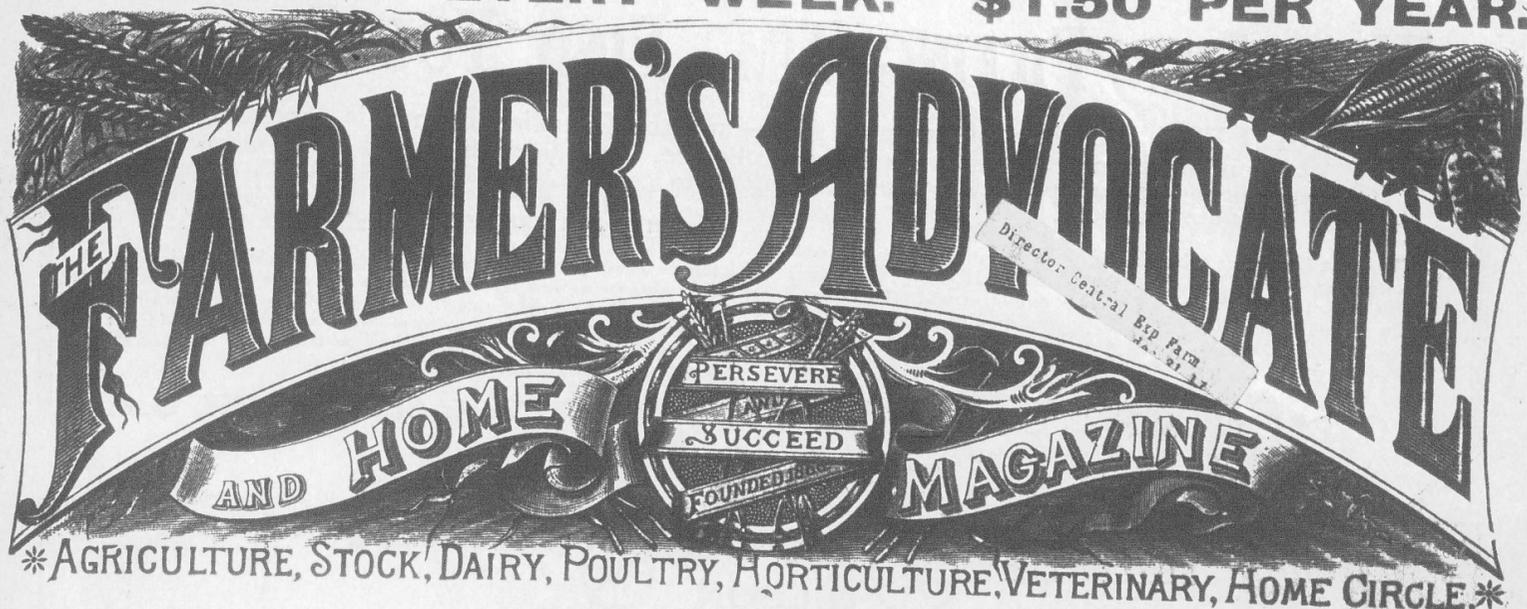


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VOL. LII.

LONDON, ONTARIO, SEPTEMBER 6, 1917.

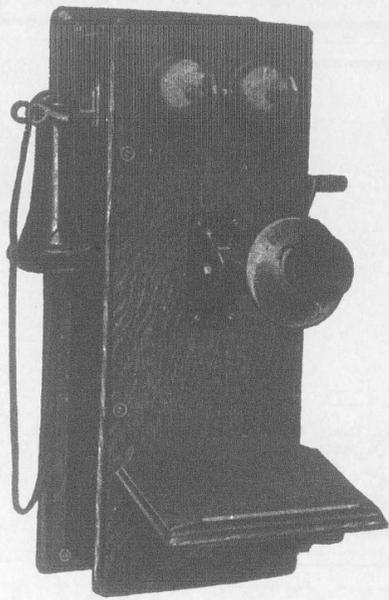
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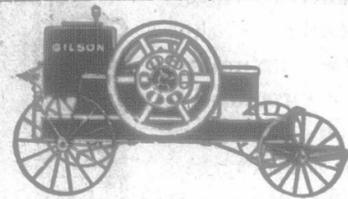
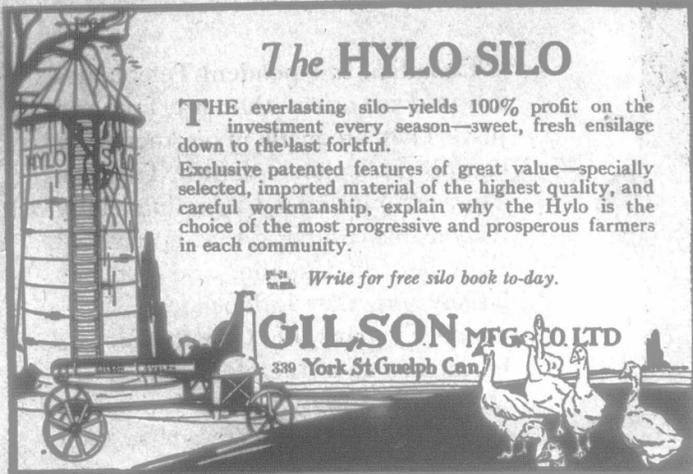
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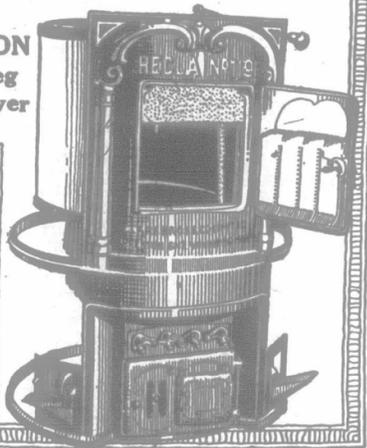
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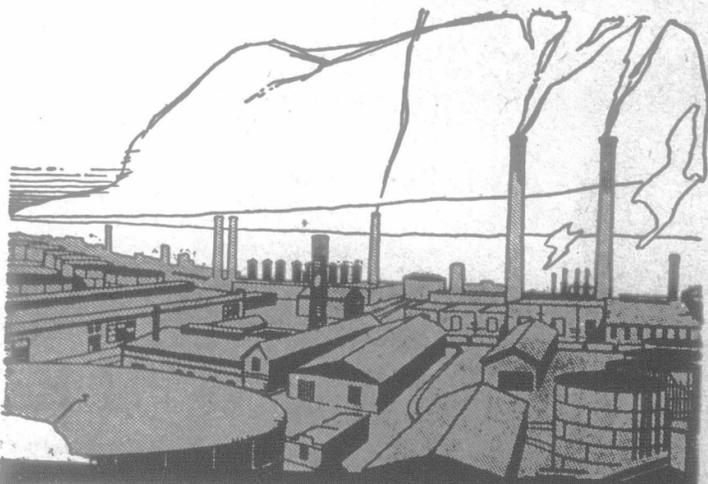
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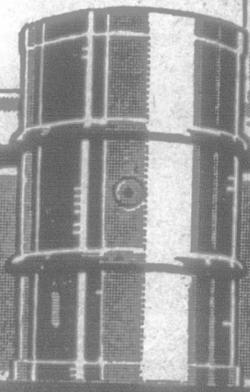
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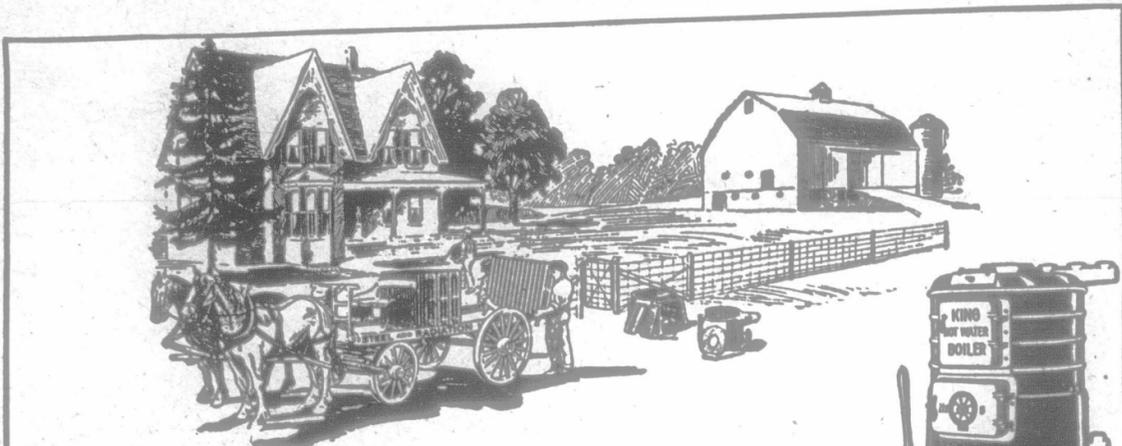
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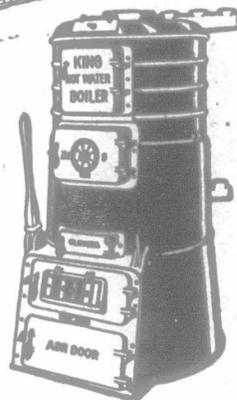
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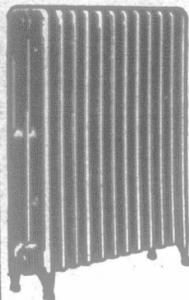
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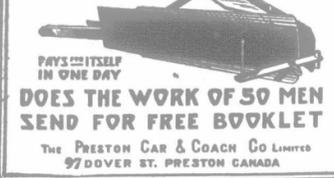
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	Cotton bags, 30c. each extra.

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LII.

LONDON, ONTARIO, SEPTEMBER 6, 1917.

1302

EDITORIAL.

The time for fall sowing is at hand. Sow selected seed.

After you get the coal bin ready, sharpen up the axe and the saw.

The average farmer has a much better knowledge of production than he has of marketing.

The 1918 crop depends upon the amount of plowing done this fall. An early start means a good finish.

The Canadian farmer is asked to produce a greater acreage of grain and larger number of live stock next year with a diminishing supply of labor.

About the only portions of Ontario which have not produced a big crop this year are the undrained spots. Drainage is essential to crop production.

Some of Canada's politicians seem to be more concerned over the outcome of political squabbles at Ottawa than they are about the fight for liberty in Europe.

If the tractor is as valuable in increasing production as the Ontario Department of Agriculture reports indicate, let us have cheap tractors. Removing duty would help.

Which would you rather do, Young Man, stay on the farm and eventually become a prosperous and successful farmer, or move away to the city and labor year after year under a boss?

The car shortage is acute. All users of freight cars should load to full capacity promptly and unload without delay. Aiding the transportation companies this fall and winter will help avert a crisis.

The county or township fair which means no more to the people who attend than "a day off", has only half the reason for existence that the one which is an educative as well as social event has.

Unless more coal comes through to the smaller towns and villages and to rural districts many people will have to keep themselves warm for no small part of the coming winter at that healthful occupation—sawing and splitting wood.

It pays best to fit the young animal for the block because it is in early life that feeds are most easily converted into meat. This is one reason why the three and four-year-old steer has given place on the market to the youngster of fifteen months to two years.

The surest way of increasing food production is to make it pay to produce. Food Controllers should bear this in mind. Farmers have not sufficient capital to warrant investing on a large scale in any branch of their business without reasonable assurance that a fair return will be made from the venture.

The months immediately following harvest are the months of lowest prices. They form the grain speculator's opportunity. He buys heavily, fills his elevators, increases the visible supply and forces prices down. The farmer sells either because he needs money or because prices cause uncertainty as to the future. To overcome this a larger proportion of the grain should be held on the farm and a gradual supply go forward to market, thus giving no chance of shortage and creating a uniform supply which would mean better prices to the farmer and less easy money for the speculator, while the consumer would benefit.

Meat Supplies and Price Fixing.

According to advices received from Washington, since the war began the world's meat-producing animals have decreased by 115,000,000. This decrease consists of over 28,000,000 cattle, 54,000,000 sheep, and 32,000,000 hogs, and for the most part is to be found in European countries, as cattle and hogs have actually increased in America. While European countries have reduced meat consumption to those not engaged in war, the saving has been overcome by the increased demands of the armies, with the result that live stock decreases have occurred in all the countries. Even Britain, the home of the best live stock in the world, has cut down supplies and just recently prices have been fixed for cattle so low for the finished product that a great deal of complaint is being heard from the British cattle feeders. The price for September is fixed at 74s. per cwt. live weight, whereas for December the price falls to 60s. per cwt. Complaint is heard that this will not encourage the feeding of cattle to the finished stage, and that in a short time Britain will find herself very much depleted in stall-fed beefs.

There seems to be good times ahead for the Canadian stockman. Even after the war it will take a number of years to make up the deficiency which is growing as the conflict proceeds, but in the meantime those who have the matter of food control in charge should be careful, if price setting on meat is to come, to be fair to all concerned. We require an increased production of food material and as it has been well said by a member of the House of Lords, "the golden way of increasing the production of food is first to make it pay to do so, and second to get the loyal support and full confidence of the farmer." The present outlook is for good prices for well-finished stock, but it must be remembered that it costs money to properly finish any class of stock when feeding stuffs are as high as they are at present. And if the production of beef, pork and mutton is to go on on this continent as it should, any price interference which may come must take feeding stuffs and many other commodities into consideration and must place a price sufficiently high to pay the producer for the extra effort which he is called upon to make. Canada and the United States are increasing their live stock and it is to be hoped that no interference may come to slow up the march of progress. All meat regulations should be made with a view to the future as well as remembering the needs of the present. Live stock breeding must be encouraged as the basis of a sound agriculture in Canada.

Farm Work For Munitions Men.

Orders to gradually decrease the manufacture of munitions in Canada have brought forth considerable speculation as to the cause. No doubt the real reason was well explained by the British Premier in the statement in which he intimated that the British Isles were now able to maintain a supply of munitions large enough to meet the need and so it is wise to eliminate so far as possible the need of transportation which is a big item in the case of munitions manufactured in Canada. The slowing-down of the munitions work in this country is to be gradual, which should not interfere greatly with business and trade conditions, and it is better than abruptly later on. Altogether there were some 300,000 men and women working on munitions in this country and these will ultimately have to find new employment, or at least should look for it immediately. There is plenty of work now to be had and those not needed in plants which will take up the work they were doing before the war could be used to good advantage on the farms, where they would be producing materials just as necessary to the winning of the war as are the explosives themselves. One thing is important, those who have had good wages working in the factories which

have enjoyed large munition orders will find themselves better off in the not very distant future if they immediately secure new jobs while there are plenty open. Almost all lines are short of good workmen at the present time. Canada has no place for idlers. Of the number who are from time to time thrown out of work through the cutting down of munitions manufacture we should like to see a goodly percentage of the best, a number of whom know how to do farm work, arrange for permanent positions on the farm, and continue to do a great work for the country as well as for themselves.

It Will Pay to Preserve Machinery.

At the present time with all classes of farm implements and machinery much increased in price it is even more important that greater care be taken to prolong their period of usefulness. It is estimated that the average farm implement and machine lasts just half as long as it would with the best of care. Fence corners, apple trees and open fields do not form the best protection for either the woodwork or the metal which comprise binders, mowers, cultivators, drills, plows, etc. Care will double the life of the average farm machine and with the amount of machinery and implements necessary to efficiently work the average 100-acre farm at the present time, an implement shed and a few pots of paint would surely be a good investment, and when the shed is built see that it covers the implements and that they are not left out to rust and rot. In the matter of paint the average farmer is careless. Paint is almost as essential to the long life of the wooden parts of the machinery and implements as is oil to the bearings. During the winter months machines should be cleaned up and painted.

The Transportation Problem.

A member of a prominent grain exporting house in Chicago recently made the statement that the United States, Canada, Argentina, Australia and India will have available for export during the next eight months 575,000,000 bushels of wheat, 25,000,000 bushels of rye, 450,000,000 bushels of oats, 400,000,000 bushels of corn, 50,000,000 bushels of barley, or a grand total of 1,500,000,000 bushels. In his opinion the grain requirements of the Allies will not be so large as in pre-war times on account of the extra economy practiced due to the high prices. The big problem now is to work the greatest saving possible in domestic distribution, and to arrange for proper ocean transportation. Production is about over for this year, but in order that the greatest good may be extended to the greatest number, ocean commerce must be properly distributed.

Grading Essential in Live Stock.

A Bill was recently introduced into the House of Commons entitled, "An Act Respecting Live Stock". This Bill calls for the formation of a Live Stock Exchange at all stock yards and the by-laws of such Exchange to be approved by the Minister of Agriculture. It will be necessary for commission merchants to become members of the Exchange and these must furnish sufficient and satisfactory security. It is also included in the Bill that all stock yards shall be constructed and equipped in accordance with the regulations, and no stock yard shall be operated until it has been inspected and approved by the Minister or an Inspector, and all stock yards must at all times be open to inspection. The by-laws of every stock yard must be submitted with the regular schedule of fees to the Minister for his approval, and any not conforming with the regulations may be closed. Stock yards already in existence will come under the Act only after notification from the Minister.

One of the most important features in connection with the whole live-stock business is the matter of grading. This is left to the Governor-in-Council

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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who may make the regulations describing the manner in which live stock, meat, poultry, eggs and wool shall be graded and branded or marked. It is to be hoped that the Act is enforced and that regulations regarding grading may be speedily made and the whole put into effective operation. Nothing will so work for a uniform output of live stock, meat, poultry, eggs and wool and a place on the markets of the world as will an efficient system of grading. The Minister of Agriculture is to be commended upon this beginning toward systematic control of the live-stock output of our farms. Let grading come immediately.

Nature's Diary.

A. B. KLUGH, M. A.

A very common and very interesting plant is the Evening Primrose. It has a wide range, being found from Labrador west to the Rocky Mountains and it blooms from June until October.

This species has an erect, often wand-like, stem from two to five feet in height, which is leafy to the top. The flowers are yellow, about an inch and a half across and are borne in terminal leafy-bracted spikes. The corolla has four spreading petals. These lemon-yellow petals are broad, with the outer margin notched. There are eight stamens which are set one at the middle of each petal and one between each two petals. The pollen is discharged in cobwebby strings. When the flower first opens the stigma is egg-shaped and lies below the anthers, later it opens into a cross and hangs off at one side of the anthers.

As we see the Evening Primrose during the daytime early in the season it presents a somewhat faded appearance, as there are no wide-open flowers present during the sunny hours. But if we watch it in the evening we shall see the sudden and interesting manner in which the buds open. A flower which is about to open shows a long yellow tube which pushes up between two of the sepals. Usually about sunset the petals begin to unfurl. They are wrapped around each other after the manner of a furled umbrella so that one edge of each petal becomes free first. Gradually the sepals are pushed downward and the petals suddenly flare open. Three or four flowers may open on a plant during an evening, and the time which they take to unfold varies from two minutes to half an hour.

The flowers of the Evening Primrose are pollinated by moths, as we might infer from the fact of their opening at the hour when these night-flying insects are on the wing. If a flower is fertilized it closes in the morning and does not open again, but if it is not fertilized

it remains open during the next day, and is visited by butterflies and bees. Only insects with long tongues can reach the nectar at the end of the long tube in which it is secreted. Occasionally a hummingbird takes a sip of the nectar of those flowers which remain open during the daytime. Later in the season the flowers of the Evening Primrose remain open all day.

Many species of moths play the part of pollen carriers for the Evening Primrose, but there is one species which is very intimately associated with this plant. We often notice the petals with holes cut in them and when we find the insect which is feeding on them we see it to be a little green caterpillar. When this caterpillar becomes mature it descends the plant, burrows into the ground, changes to a pupa, and thus remains until the following summer. It then emerges as a very beautiful little moth about an inch across, known as *Alaria florida*. The front wings of this moth are rose-pink, slightly mottled with lemon-yellow and they have a lemon-yellow outer border. The hind wings are whitish and the head and antennæ, (feelers) are pink. This little moth is the special pollen carrier



Evening Primrose.

of the Evening Primrose, and during the day it hides within the partially-closed flower. As the fading petals of the Evening Primrose turn pinkish this moth is protectively colored when on such flowers and the lemon-yellow borders of the front wings render it equally hard to see when on a newly-opened flower. Thus the moth in its adult stage pays, by the transferring of pollen, for the damage it did to the petals when in the larval stage.

The seed-capsules of the Evening Primrose are long, green and four-sided. In winter they stand like vases with gracefully flaring tips along the wand-like stem. The seeds are shaken from these vases by the winds of autumn and early winter.

This plant is a biennial and during their first year the plants form flat and symmetrical rosettes, which are thus easily protected by the snow. During the next spring the stem appears from the centre of this rosette.

Where We Get Education.

BY ALLAN MCDIARMID.

In listening to a conversation recently between two men, I heard one of them ask the other where he had received his education. The man questioned seemed a little uncertain as to his reply, and then said that he wasn't very sure as to just where he had learned what little he knew. He said he guessed he had managed to pick up a small amount of knowledge in almost every place he was ever in. "If you mean to ask what school I attended I can tell you that", he went on, "but I always looked on my school education and my college training as a very good way to make a beginning in the attempt to learn the lessons that Life can teach us, and nothing more."

What we get in this way is a good basis to build from and pretty necessary for the majority of men and women, although some well-educated people have never seen the inside of a school building. But my idea is that one should acquire the ability to read and write their language in school up to the point where it will become a pleasure to continue their education along these lines, so that they may be led into fields of labor and usefulness that would have otherwise remained beyond their reach. As a farmer I have discovered that Old Mother Nature will teach us as fast as we develop the ability to take it in, if we give her the opportunity. All we have to do is to keep our eyes open and she will give us a lesson every day in the week, in the development of Life and the changes and progress that are brought about by way of evolution. We might read about these things in books till we were blind and never get the understanding

of them that we do when we see the whole thing worked out before our eyes. And when we work in partnership with Nature, as the farmer is compelled to, we have these things impressed on us in a way that makes it impossible for us to forget them. To live and accomplish Life's purpose we must learn from Nature's book. She goes hand in hand with another of our teachers that we call Experience. Together they have taught some pretty well educated men about all they know. The old saying is that "Experience is a dear teacher, but she keeps the only school that fools will learn in". And I guess no one will deny the fact that we are all fools to a greater or less degree, at least until Experience has had us in hand for a few terms. She comes to us in our association with our fellowmen and it is here that she gets in her finishing touches. No man can be called educated who does not come into regular contact with others of his kind. It has been said that the proper study for mankind is man, so if this is true it is necessary for us to put ourselves in the position where we will acquire the knowledge that comes from conversing with, and observing, the rest of mankind. It is right here that the ordinary country or city school gets in some of its best work. I have often said that the lessons I learned outside the school I attended in my young days were worth more to me than those I got within its walls, for the reason that nowhere will you get your weaknesses or peculiarities more frankly ridiculed than among your schoolmates. The qualities of courage and endurance are apt to be developed to a considerable extent as well, on the school play-ground, and it's at this time in one's life that any impressions made are likely to remain and influence one's actions in the future years. Of course, teachers have their influence over the lives of the pupils as well, and according to their character will this influence be good or bad. I have known pupils who never recovered from the effects of a year under a nervous, ill-tempered teacher, who made up in punishment and abuse for his lack of ability as an educator.

Another means of education that I have not mentioned is to be found in the Church. In the past, man's moral and religious training has been brought about through the pulpit to a greater extent, probably than by any other means. Its influence has been felt in the world for thousands of years, though perhaps not always along the lines of progressive education. Its place in the world to-day is of importance in so far as it continues to be an educational force in the community in which it is located. But if its development does not keep step with the times its influence is soon weakened. A church that does not move forward with the years cannot fulfill her mission as an educator, and may as well close her doors. The forms of religion do not interest the world as they did at one time. It must be practical in everyday life. And the preacher should be to the older members of his congregation what the teacher is to be to the children in the school, that is, a source of knowledge as well as discipline.

Two other means of education should not be overlooked. They are books and newspapers. One would think that once the ability to read had been acquired the pleasure to be had from books would be inducement enough to make anyone keep up the habit. But a large percentage of the people of this country, especially among us who spend our lives on the farm, do not take advantage of the opportunities along this line. If they knew the pleasure and profit that they might have through continuing their education by means of the best books that are to be had so easily at the present time, they would hardly neglect the matter as so many of them do. It's one way of becoming "the heirs of all the ages", when our dowry comes to us in the form of books.

Newspapers are not neglected to the same extent. Almost all read them, and as a rule are unconsciously getting an education that is affecting their character and influencing their actions. As an educator the newspaper has a pretty prominent place, and on the whole its teaching is what might be called "sound doctrine". This has been more noticeable since the war started. One other process through which we may be educated should be mentioned. That is Travel. In looking at this subject from the standpoint of a farmer it is not surprising that I cannot speak from an unlimited experience as to the value of "seeing the world" as an educator. Farmers do not travel. At least not very much. Their horizon comes down pretty close to them on all sides. If we would "get up and get out" say once a year, it would do more to clear the cobwebs out of our brains than any doctor's prescription or patent medicine. If we're only going through this world once we ought to take a look at it in the passing. It costs good money to travel, we have to admit that, but so does any other part of our education that is worth having, and what's more, there's a chance that when we have to say good-bye to this old world we may take what we've learned along with us, but it's a sure thing we'll have to leave our money. And no doubt we'll find then that we have to start in on a course in some of the higher branches of knowledge, on another planet, maybe, where our money wouldn't be of much account, even if we had it.

Food Controller Hanna says that Hannah of the household must "can" canned goods until after October 15. It is too bad to force Hannah to do extra cooking before the holiday season is over, and besides she will say, "we are supposed to save coal." However, a good cook is of more use in the home than a can-opener and this order may increase the number of the former and cut down the demand for the latter.

Influenza usually attacks early in the autumn, bronchial with irritability, the disease in the liver, the art it is liable to

Causes.—It is often in been exposed parently upon any seasons or to but is more Sudden change ment of the predisposes alone will no contract the to the speci conceded that air and prof its appeara nor their at agion.

Symptom catarrhal con (a shivering is a dry, star a redness an nostrils; a w 103 or 104, a heit. There ing but usua at first water become infec face. There inability to s causes acute ous, painful a The pulse is v The mouth is well marked, by a gulping of some of t quidding of are usually c mucous, the the weaknes often appear lations becor to move by joints cause.

Treatment It is somew treatment sh any distressi support stren roomy, well- Pure air is es He should be oats, bran, li and hay, an water. It is reach it at w he appears to into his mou by holding hi a little carb added, conti three times o charge and poultices of the throat a plication of a monia, oil of ping with fl throat should sore, they sl times daily ar Constitution allying the three dram fifteen grains be given by spoon, as the and on accou ous to atten stimulants as nitre or three equal quanti syringe every

If constip ministering a tions of war gatives such petite remain gruel should equal parts of bicarbonate doses three o given out of a tion. When arise, the ser

THE HORSE.

LIVE STOCK.

The Value of Sheep on the Land.

Diseases of the Respiratory Organs.

Influenza.

Influenza is an infectious, epizootic febrile disease, usually attended by great prostration of strength, with early inflammation of the nasal, laryngeal, and sometimes bronchial mucous membranes, and usually complicated with irritability of the digestive tract. Occasionally the disease implicates the substance of the lungs, pleura, liver, the articulations, muscles and tendons. In fact, it is liable to very many complications.

Causes.—It is doubtless due to a specific virus, but it is often impossible to determine how an animal has been exposed to the contagion. In many cases it apparently appears spontaneously. It does not depend upon any known condition of the atmosphere, soil, seasons or temperature. It may appear at any season, but is more common in the fall, winter and spring. Sudden changes of weather appear to assist the development of the virus, and exposure to dampness and cold predisposes the animal to the disease, but these causes alone will not produce it. In order that an animal may contract the disease it is necessary that he be exposed to the specific virus that produces it. It is generally conceded that the virus is volatile, that it exists in the air and probably multiplies there. This accounts for its appearance in a stable, in which neither the horses nor their attendants have been exposed to the contagion.

Symptoms.—An uncomplicated case is simply a catarrhal condition. It is usually ushered in by rigors, (a shivering fit) which often passes unobserved. There is a dry, staring coat; the legs and ears are usually cold; a redness and dryness of the mucous membrane of the nostrils; a well-marked elevation of the temperature to 103 or 104, and sometimes as high as 106 degrees Fahrenheit. There is sneezing, a cough, at first dry and hacking but usually soon becoming moist; a nasal discharge at first watery but soon becoming purulent. The eyes become infected and dull and tears usually flow over the face. There is decreased appetite and more or less inability to swallow. Pressure upon the throat usually causes acute coughing. The cough becomes deep, sonorous, painful and with spasms convulsing the whole body. The pulse is weak and frequent after the first day or two. The mouth is hot and clammy, and the thirst usually well marked. The soreness of the throat is indicated by a gulping noise when drinking, and often a return of some of the water through the nostrils, also by a quidding of the food. In the early stages the faeces are usually dry and hard and sometimes covered with mucous, the urine high colored and scanty. Owing to the weakness of the circulation, dropsical swellings often appear on the abdomen, breast and legs, the articulations become involved and the animal is disinclined to move by reason of the pain that movements of the joints cause.

Treatment.—This disease cannot be cured quickly. It is somewhat inclined to run a definite course. The treatment should consequently be directed to relieve any distressing symptoms, to allay irritability, and support strength. The patient should be placed in a roomy, well-ventilated box stall, excluded from drafts. Pure air is essential even at the expense of heat. The body should be clothed according to the temperature. He should be fed on soft, easily digested food, as rolled oats, bran, linseed meal, grass, if in season, raw roots and hay, and supplied with an abundance of good cold water. It is good practice to keep water where he can reach it at will, as even though he may not be thirsty he appears to get some relief by taking some cold water into his mouth. Inhalations of medicated steam given by holding his head over a pot of boiling water to which a little carbolic acid or tincture of benzoin has been added, continued for one-half hour or longer two or three times daily, affords relief, encourages nasal discharge and relieves the cough. Hot poultices, or poultices of antiphlogistine to the throat and keeping the throat wrapped with flannel bandages, or the application of a liniment made of equal parts liquor ammonia, oil of turpentine and raw linseed oil, and wrapping with flannel bandages gives good results. The throat should be kept warm. If the legs be swollen and sore, they should be well hand-rubbed two or three times daily and kept well wrapped with woolen bandages. Constitutional treatment should be directed towards allaying the fever and sustaining strength. Two to three drams of nitrate of potassium and twelve to fifteen grains of quinine three times daily; this should be given by placing it well back on the tongue out of a spoon, as the patient may not eat it if given on food, and on account of the soreness of the throat it is dangerous to attempt to drench. If prostration be great, stimulants as two to three ounces of sweet spirits of nitre or three to four ounces of whiskey diluted with an equal quantity of water should be given with a dose syringe every four or five hours.

If constipation occurs relief should be given by administering a few ounces of raw linseed oil and injections of warm, soapy water per rectum; drastic purgatives such as aloes must be avoided. If the appetite remain poor after three or four days, milk or gruel should be substituted for water, and tonics, as equal parts of powdered gentian, ginger, nuxvomica and bicarbonate of soda may be given in dessertspoonful doses three or four times daily. This also should be given out of a spoon in order to avoid danger of suffocation. When complications that are not understood arise, the services of a veterinarian should be procured.

W.H.P.

Keep the young things growing; they will never make as cheap gains again.

Clean the grain, stubble and root fields, not by hand, but with cattle, hogs and chickens.

Hogs reached the \$20 mark at Chicago and Buffalo not long ago, but since then they have suddenly dropped.

It is time now to separate the ram lambs from the main flock. In many cases it should have been done earlier.

Have you given the cabin method of housing hogs serious consideration? It might solve a perplexing problem in connection with the swine.

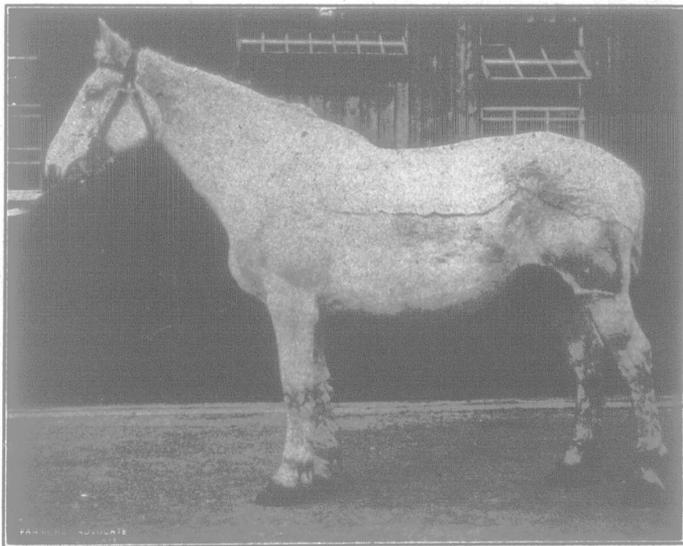
Make preparations early for housing the fall-farrowed pigs wisely and comfortably this coming winter. Crippling can be prevented with proper feed and treatment.

Don't sell the best cow, ewe or sow from the herd or flock. Improvement will come through them and not through the ordinary ones that the other fellow does not want.

Train your entries for the fall fairs and insist on the animals being shown on the halter. Judging cattle loose in the pasture field or large paddock is a primitive method and altogether uneducative.

The United States Food Administrator, Hoover, states that prices of beef and pork will not be fixed in that country. An effort is being made, however, to stabilize prices so there will be fewer wide fluctuations.

Those who have hogs to sell should remember that lower prices are usually ushered in during late October and the month of November. The reasons are obvious—the majority of farmers are ready and anxious to sell then.



An Irish Draft Mare.

An effort is being made to increase draft horse breeding in Ireland by using heavy stallions on this native type of light draft mare.

Plan the work and feeding so the herd will not be obliged to remain in the fields too late in the fall. Gains made in summer and early fall should not be lost. It takes too much good grain and roughage to get them back.

Young sows should not be bred until around eight months of age. The gestation period is less of a drain than the lactation period so the sow should reach a fair degree of maturity before being called upon to perform the duties of rearing a litter.

Under good management hogs should be reared to 200 pounds in weight on about four pounds of grain for each pound of gain in live weight. Producers can estimate from these figures future profits or losses taking into consideration the price of feeding-stuffs

New Zealand, according to official figures, had 24,753,324 sheep on the 30th of April, 1917. This represents a decrease of 34,826 over last year's count. During the last five years the returns have annually shown over twenty-four million. A similar sheep population was reported in 1910.

More hogs at less cost could be reared if proper consideration were given to the question of housing. The cabin or portable house could be used more extensively in the parts of Ontario where swine are raised in greatest numbers. Expensive piggeries are unnecessary. Light, ventilation and freedom from drafts are the chief requisites.

It is many years ago since we heard an old flax-grower remark that, even on a mixed tillage farm, he thought a few sheep were always worth keeping for the fine flax they left after them. It is well known that sheep, especially if hand-fed, enrich land greatly, and it is conceivable that sheep droppings would leave behind a large manurial residue especially rich in potash, which would be of direct benefit to flax. The even distribution of sheep droppings makes this form of manuring land easier done than in the case of cattle, which are inclined to rest and shelter in spots. A writer dealing with this very subject recently points out that "the recognized value of sheep dung on pastures has been due quite as much to its character as to its composition. Falling evenly all over the field, it requires no further distribution. The dung of cattle falls in solid heaps, temporarily destroying the grass underneath and over-manuring the spot, so as to grow coarse, rank patches." Here is contrasted the effect of both kinds of stock in manuring the fields on which they graze. The feet of the sheep have been referred to as golden for the enriching effect they have on the soil, and there is no doubt they are worth keeping, even on small tillage farms, for this reason. As a rule, sheep are not easily kept on the smaller-sized farms, where the fences must be perfect to keep them from getting on to other holdings. Even this, however, should not be a bar to keeping stock which leave traces behind them in strengthening the soil for growing nearly every kind of farm crop. Whether lambs sell ill or sell well, we believe all farmers who grow flax should keep a few ewes. The profits may not be great directly, but they may be indirectly. It will be many a year before supplies of potash such as were available before the war can be obtained by growers of flax. All know that potash is an essential manure for the crop, and its application in whatever form never fails to mark itself. An alternative to the source of some years ago must now be looked for, and while kelp which, in limited quantity, may be obtained round the coast-line may be utilized, the benefit of keeping some sheep, even if for no other cause than for increasing the supply of potash in the soil, should be more widely recognized than it is.—Farmers Gazette.

Why Progress is Slow.

We are not making any startling progress in the live stock industry. In respect to numbers statistics record an increase at one time and a decrease at another, whereas, in a young country like this, we should be adding to our live-stock population at a steady and healthy rate each year. On the other hand, one must admit, that a gradual improvement is taking place in regard to quality. The pure-bred sire is becoming more popular and the cattle, horses, sheep and swine, the country over, are benefiting thereby. However, this change for the better is lamentably slow. One reason is that stock farmers in general do not fully appreciate the pure-bred sire, while another undoubtedly is to be found in the conclusions arrived at by Raymond Pearl, of the Maine Agricultural Experiment Station. Investigation has been carried on throughout that State, particularly in regard to the ages of sires used by a number of progressive Maine farmers and breeders. The following table taken from a Maine Bulletin shows that a large percentage of the calves are from young sires, the older ones being disposed of before their progeny reach the age when their quality or productiveness can be ascertained. There is no evidence to prove that calves from young sires are inferior to those from older parentage. The regret is that more bulls of proven worth are not retained as breeders. The table is followed by Prof. Pearl's comments.

Showing the Age in Years of Bulls Used as Breeders.

Age in years	Absolute frequency	Percentage
1	213	22.03
2	252	26.06
3	209	21.61
4	149	15.41
5	52	5.78
6	53	5.48
7	24	2.48
8	8	.83
9	3	.31
10	—	—
11	—	—
12	4	.41
Total	967	100

"From these tables we note the average age of the

herd bulls used to sire the 967 calves included in the statistics was just under three years. The medium age of these herd bulls was approximately two and a half years. This means that one-half of the calves were sired by bulls under two and a half years old at time of service. Seventy-five per cent. of all the calves were sired by herd bulls less than about three years and nine months old at time of service. Less than 15 per cent. of the calves were sired by bulls five or more years old. Let us consider for a moment what these facts mean. A bull must be at least four years old before the breeder can possibly have had any opportunity to test adequately the milk producing capacity of his daughters. But 85 per cent. of all the calves covered in these statistics were sired by bulls under four years and 10 months of age. In other words, in the breeding operations of a large number of Maine's most progressive and wide-awake breeders (for such the co-operators in this record scheme are) more than three-fourths of the calves produced in a given interval of time are sired by bulls about whose ability to transmit milking qualities absolutely nothing definite can by any possibility be known. It is doubtless entirely fair to assume that essentially the same conditions regarding cattle-breeding methods obtain in other places generally. Is it remarkable that progress is so slow?"

A Comfortable Hog Cabin For Hot and Cold Weather.

EDITOR "THE FARMER'S ADVOCATE":

The portable year-round hog cabin now extensively used by swine breeders, should afford reasonable shelter from the extremes of heat and cold. The ordinary single-board cabin placed in a sheltered spot and well supplied with bedding, apparently affords a degree of shelter for aged breeding stock, (several individuals to the cabin) that combined with the accompanying exercise and fresh air, meets admirably with winter health requirements. During the summer when the same cabin is pulled out to the summer paddock or pasture (if need be) similar satisfaction, however, is not afforded. While the ordinary cabin supplies comparative shelter and warmth in winter and is, therefore, welcome—it does not afford cool shade in summer. In fact with tight sides and roof, on a hot day, the interior is oven-like and the least sought-after spot in the paddock by the pigs. If cool, natural shade is elsewhere afforded, this deficiency is not so important. In an otherwise shadeless pasture, however, a cool cabin is a necessity. Every hog man knows the effect of continuous hot sun on a small tender-skinned pig.

Cabins similar to the one illustrated herewith, have given excellent satisfaction at the Experiment Farm at Ottawa this summer, in paddocks where practically no shade was available. While the photograph leaves detailed explanation unnecessary, it might be stated that these cabins are about 6 ft. by 8 ft. in size; portable; built of 2-inch plank floor, 2-inch by 4-inch studs, and

1-inch by 12-inch rough sheathing. The special feature is the hinged sides, which when hooked up afford two side verandahs, as it were, apart from the cool interior. In winter the sides are lowered and securely held by pins driven through heavy iron staples which pass through corresponding holes, three on each side as shown. It is important that the sides be securely fastened when down. For further ventilation, a section of the roof may be hinged at the peak and raised a foot or so.

The proof of the pudding is in the eating. Pigs distinctly approve of this cabin.
Central Experimental Farm. GEO. B. ROTHWELL.



An Adjustable Hog Cabin.

This type of cabin is comfortable in summer as well as winter.

THE FARM.

The Two-Furrow Plow.

In the past there has been considerable prejudice against the work of the two-furrow plow; very often due to the fact that the plow was not properly set and carefully operated. At the present time, with the increased demand for a large acreage of crop and the minimum supply of labor, there is little time for single plowing. There are several types of two-furrow plows on the market, which, provided they are properly operated, will do just as serviceable work as will the single plow, and one man with the proper amount of horse-power can turn over just double the acreage. It is generally advisable to strike out and finish with the single plow, although there are those who do not use it even for this important work. Set the plow down in the ground the same depth as you would plow with the ordinary single walking plow and drive carefully, and if the plow is properly adjusted an even, well-turned furrow will result. Acreage will count this fall even more than ever before, but let the work be well done.

The Wheat Midge.

EDITOR "THE FARMER'S ADVOCATE":

After many years of freedom from its attacks, the Wheat Midge has made its unwelcome appearance in the counties of Wentworth, Lincoln and Welland and also in Elgin. On some farms it has injured the crop to a considerable extent and has caused much alarm among the farmers in those sections of the Province.

The parent fly is a very small, two-winged insect, with a yellow or orange colored body, about an eighth of an inch in length. It appears when the ears are formed on the growing grain and lays its eggs at the tip of the chaff covering the soft kernel. In about a week there hatch from them small, dark red maggots, which enter the grain and feed on its milky contents, leaving only an empty shell. When numerous the destruction thus wrought is enormous. When full grown the maggot descends to the ground, aided oftentimes by a rain drop, and there, burying itself a few inches below the surface, changes to the torpid pupal stage in which it passes the winter.

Nothing can be done to destroy the maggots while feeding in the ear, it only remains, therefore, to guard against future attacks. For this purpose it is most important to sweep up and burn at once all chaff and refuse from the threshing machine, which will contain many of these insects. If practicable the stubble in the field should be burnt over, and in any case the whole should be deeply ploughed in order to bury the wintering pupae so deeply that the flies will be unable to emerge next year. Rolling the ground after ploughing will help materially to produce this result. No wheat should be grown on the same field or very near it for one or two seasons.

When the Midge was so terribly destructive, some fifty or more years ago, it was found that certain varieties of wheat were "Midge-proof," due to the flinty character of the straw and the chaff covering the grain, which were too hard for the newly-hatched maggot to penetrate. The general adoption of these varieties saved the situation and the Midge became practically extinct. It would be well for farmers in the localities affected to sow next year only such varieties of wheat as are likely to possess this resistant quality. The Red Fife is one that can be recommended, and probably the Marquis would be equally satisfactory.

C. J. S. BETHUNE.

Ontario Agricultural College, Guelph.

Grain Acreage in the United States.

United States Department of Agriculture recommends the sowing in that country of 47,337,000 acres to winter wheat, and 5,131,000 acres to rye. They also recommend sowing 19,000,000 acres of spring wheat, 5,500,000 acres of spring rye, nearly 8,000,000 acres of barley, over 45,000,000 acres of oats, and over 111,000,000 acres of corn. This will be a 43 per cent. increase in wheat, 5 per cent. in spring wheat, 124 per cent. in rye, 7 per cent. in barley, 22 per cent. in oats; and 7 per cent. in corn, or a total increase of 22 per cent. in the entire acreage to be sown.

Canada's Young Farmers and Future Leaders.

Boys Have a Share in Harvesting Crops.

In every country the war has caused new demands to be made on young people. Boys who ordinarily would be considered too young to drive a team or work in the hay or harvest field have this year fallen in line and are filling men's shoes to the best of their ability. Town and city boys who counted on the summer months for having a good time have this year plied the hoe and fork on a farm. While some found that farm work was out of their sphere and returned to the metropolis, others found the work interesting although hard, and staying with it their efforts have aided in saving some of Canada's "bumper crops." They have come in touch with the fountain of supply for their tables and in the sowing, reaping, storing, threshing, and in marketing through the elevator or in the way of live stock or dairy products, they realize the immense amount of work involved between sowing the seed and getting the returns for their labor. However, the Canadian boys have many advantages over the boys of some other countries. The accompanying illustration shows a number of boys assisting in gathering the hay in Great Britain. Note that the hand-rake is still in use. We understand that the labor-saving devices, as side-delivery rakes, hay-loaders, sliding hay racks, slings, hay forks, etc., have not come into general use as yet. The cradle and reaper are used in some parts for cutting the grain crop, while in parts of Europe the sickle is in common use. Instead of drawing the loads on large wagons, carts are used. Horses are led rather than driven, which necessitates one man to look after the horse while another looks after the machine to which it is hitched.

The work is done by hand rather than by machinery. After being used to large machines and implements drawn by three or four horses, such practices would appear strange to a Canadian farm boy. Where once strength was the main requirement of a farmer, he must now know something about machinery; he must be

able to handle four-horse teams, etc. The hands and back are saved at the expense of brain action. Necessity is the mother of invention. Shortage of help in America led men to invent machines to do the work, and in no country has efficient labor-saving devices for the farm, as well as in commercial establishments, reached such a high status. No doubt in days to come labor-saving machinery will be as common on the farms of Europe as it is in America. However, for the present at least

the farm boys on this side of the Atlantic have advantages which have not fallen to the lot of European boys, although they may have things in other lines which we do not possess. We sometimes feel sorry for the boys and girls of other lands, but we must remember that no one race or class of people is endowed with all the best things of life. The things which all should learn are to be content and to make the best of our opportunities.



School Boys in England Help with the Crops. These lads are enjoying a lunch in the hay field. Note the old-fashioned hand rakes.

School Days.

After being closed for a couple of months the doors of the public schools have again been opened and the boys and girls have returned to their desks to study the three R's—Reading, Riting and Rithmetic. Some joyfully take up their duties while others trudge reluctantly towards the little, red schoolhouse, with its hard benches. The fields, brooks and forests hold out greater attractions for them than do the subjects for study prescribed in the school curriculum. However, school days are all too short to master the many things it is necessary to know, and every minute should be used to best advantage. It is difficult for the schoolboy to see this; he is concerned more about the present than the future, but sooner or later the average young man expresses regret at not having made better use of his time. Instead of shirking grammar, history, or spelling, or some other subject, he wishes he had made himself learn them. Before he reaches his twentieth birthday he regrets that he had misspelt a portion of his school days. Yet, boys fail to heed the advice of their elders to adhere more diligently to their books. New methods of teaching have been devised in order that the dry facts in books may appeal to the youths. Book learning has been connected up with practical things. In some schools charts, models and maps are effectively used.

When boys and girls can measure out four quarts of grain to fill a gallon, and two gallons to fill a peck, they find it easier to remember the weights and measure table. When they take a rule and measure the schoolyard to find the area of a space they play in five days of the week, they learn the square-measure table easier than when compelled to memorize figures out of a book. Yet in spite of modern methods of teaching, which present the facts in a much more simple way than they were taught to our forefathers, the dislike for school is as marked as ever. Every excuse possible was manufactured to stay away from public school, and in so doing we failed to get a grasp of certain subjects which did not appeal to us. Now we see the folly and urge the boys and girls starting this new term to make the best use of their time. Every man is the maker of his own fortune and the better he masters the public-school studies, the easier will he find the problems arising in later life.

A boy of thirteen passed the entrance last June and rejoiced that his school days were ended. He flung his books into a corner and did not expect to need them again. He was going to work. Now, if that boy would help his younger brother and sister to prepare their lessons, it would help him as well as them. At thirteen no one has mastered the subjects taught in public school. At eighteen the boy who has gone through high school comes across posers which he cannot solve. We

are never too old to learn and the older we get the more we realize how much there is to learn. The white-haired professor, doctor, lawyer, etc., pores over large volumes in order that they may keep abreast of the times. In this country there is no excuse for a man being illiterate. If he had no opportunity to attend school, he can at least make use of his spare moments to read and study. Boys and girls, you should consider it a grand opportunity instead of drudgery to attend school. Young men and women who cannot attend high school can read and study at home, or take a correspondence course in some particular subjects. Many have fitted themselves for important positions by studying in the evenings after the regular day's work was done. Older men and women have kept well posted in current events in history, biographies of great men, science, etc., by systematic reading of books and magazines. The fundamentals of the higher education are taught in the public school, so much despised by many small boys. Later in life they will admit that they were the best days of their lives, and regret that they did not make better use of their time. Make the best of the fall and winter term whether you are attending public school, high school, or college. If not attending school use the long winter evenings for mastering some subject. Have a definite time for reading and studying.

Automobiles, Farm Machinery and Farm Motors.

The Life of Farm Machinery.

EDITOR "THE FARMER'S ADVOCATE":

In reading your issue of August 16th, I found an article re repairs on certain farm implements, the writer of which certainly hit the nail on the head.

It is unfortunate that the whole country is full of implement agents ready to sell new stuff, but the number that care for the machine to give satisfaction after the expiration of a few years is comparatively small. I experienced this myself several years ago when my self-binder gave trouble. The machine was ten or twelve years old which, as I suppose, is the average life of the self-binder. The machine did poor work so I took the knottor off and sent the man to the repair shop with it. When he got there the agent told him that the machine I had was worn out and I had better buy the new one he had on hand. On insisting that he should fix up the old knottor he simply put on a new twine knife and

a few springs that showed some wear. After I had put the machine in order and started running it I found little difference in the efficiency of its work.

That same night I hunted till I found the price list of duplicate parts which I got with the binder in question. A careful study of the knottor parts and their prices convinced me that I better not fool around with the agent any longer but send direct to the manufacturers for the necessary parts. The parts needed were written down and the letter mailed with an enclosure of a little over two dollars. This was done after harvesting the wheat crop. A few days later the parts arrived and on the next rainy day I carefully took the knottor apart and replaced the badly worn parts with new ones. When the time came to harvest the barley and oats I was delighted with the working of the knottor; in fact, I did not notice it to miss a single sheaf that fall. I am still using the machine. Some new parts on the main gear and the packer and a few other parts were also replaced a few years ago, and the machine is now cutting its twenty-first harvest on a hundred-acre farm, and is in

just as good condition as it was ten years ago. Badly worn parts have been replaced, the canvas roller boxings babitted, the machine fitted with new knives and ledger plates, but all figured together did not amount to more than twenty dollars, whereas had I bought a new machine the time the agent first told me mine was worn out this new machine would now be worn as much as the first one was ten years ago.

Agricultural implements are, on the whole, altogether too short lived, due to improper storing and neglect of oiling and replacing of partly worn parts which knock the machine to pieces. The machine above referred to was not cared for as it would be supposed, as it generally stood outside during the whole harvest time, but all the canvases were always taken off and the knottor and knife covered if it stood any length of time. The most important point is to get loose running parts replaced or tightened, and keep all nuts tight, as no machine can work satisfactorily when the frame is sagging.

Waterloo Co., Ont.

YOUNG FARMER.

THE DAIRY.

The herd requires attention after it returns from the show as well as before it is exhibited.

Even the quietest bull cannot be trusted. Be firm in handling him at all times, let him know that you are the master. At an unguarded moment he may strike a fatal blow. No risk should be taken.

Care should be taken when turning cows on a heavy crop of second growth clover. Bloating, indigestion and, in some cases, death has resulted from turning the animals on clover wet with dew or frost and leaving them there all day. They may suffer no ill effects other than giving a taint to the milk, but cows are too high priced and dairy products too much in demand to take any chances. The loss of one cow reduces the net profit from the herd.

What Some Cows Return For Every Dollar's Worth Of Feed.

The report of the Ontario Agricultural College and Experimental Farm gives an account of work done and the results of experiments conducted by the different departments. The sections dealing with the dairy herd should be of particular interest to dairymen. A complete account has been kept of the amount and cost of feed, and value of the products produced. The record is given for the entire herd of 34 cows, representing four different breeds. As might be expected, there is a vast difference in the amount of milk produced by the different individuals. The heaviest milker gave nearly five times as much milk as the poorest milker, and this has an important bearing on the profit. The former cow produced 100 pounds of milk for about half what the latter did. The cow which gave a little over 20,000 pounds of milk consumed 3,936 pounds of meal, which was made up of bran, oil meal, brewers' grains, cottonseed meal, and oats; 12,270 pounds of silage, 6,435 pounds of mangels and 9,504 pounds of hay were consumed. This cow was stable-fed the entire year so that there is no allowance for pasture. At the time the records were kept the cost of feed at market prices was \$133.19. At \$1.60 per cwt. there would be a profit of \$188.57 over the cost of feed. This does not take into consideration labor, interest on investment, depreciation, etc. In other words, for every dollar's worth of feed consumed the cow returned milk and fat to the value of \$2.38. The cow which gave 4,285 pounds of milk did not eat nearly as much feed as did its stablemate. The meal was 1,390 pounds, silage 6,606 pounds, mangels 4,830 pounds, hay 1,825 pounds, and \$7.19 was al-

lowed for pasture. Figuring on the same basis as above the profit was only \$18.19, or, for each dollar's worth of feed \$1.42 was returned in milk value. It is not always that the heaviest milker gives the most value for feed consumed; for instance, one cow in the herd which gave \$2.53 worth of milk for each dollar's worth of feed consumed only yielded 8,188 pounds of milk in the location. She has the distinction of producing a pound of butter-fat the cheapest of any cow in the

Many have found that in order to get the largest returns some individuals could be fed much heavier on certain feeds. Feeding all cows alike is not good business. Some have the machinery for turning out greater quantities of manufactured products than others provided they are furnished the raw material. The cows which will give the highest returns for every dollar's worth of feed consumed are the individuals to keep. The yield of fat is also an important consideration, whether butter-fat or whole milk is sold. The value of a cow cannot be reckoned by the milk flow alone; even though whole milk is sold the richness is a consideration. Consumers prefer a rich milk and the higher the test the better the quality of cheese made.

Very few dairymen go to the trouble of keeping account of the feed consumed and milk and fat produced by individual cows in the herd, consequently are not in a position to study the relation between feed consumed and production. The average feeder has little idea of the number of pounds of meal or roughage fed to a cow in a year. The figures given for the College herd will convey some idea of what it takes to produce a certain amount of milk and fat. Cows of like individuality and giving an equal quantity of the lactic fluid will require about the same amount



Lakeview Hengerveld Wayne 12430.

Seven-day record: milk 467.3 lbs.; butter, 27.42 lbs. Dam of the grand champion bull, Lakeview Dutchland Hengerveld 2nd.

herd and is the third cheapest in the production of 100 pounds of milk. The feed consumed was 1,489 pounds of meal, 4,578 pounds of silage, 3,290 pounds of mangels, 1,060 pounds of hay, and \$7.19 for pasture. She is an economical cow to feed and gives good interest on money invested in feed. Her care, stable room, depreciation, etc., would cost about the same as the other cows referred to. The heavy producers have great capacity for feed, which must be supplied to them if they are to do their best. It is what is returned for the feed consumed that counts. This is where the value of keeping records comes in. It permits the dairyman to study the relationship between feeding and production.

of feed, whether they are housed in the College barns or in the average dairyman's stable. Cows giving around 7,000 or 8,000 pounds of milk and running on pasture during the summer took from three-quarters to a ton of meal, a little over three tons of silage, from two and one-half to three tons of mangels, and around a ton of hay, although certain cows eat over a ton and one-half of the latter. It is generally conceded that for economic feeding a cow should have all the roughage she will clean up, but it is surprising the difference in the amount consumed by different animals giving approximately the same amount of milk. This shows that some cows can use

their feed to better advantage than others, or are equipped with more efficient machinery secured by selection and breeding. If a cow does not possess the inherent qualities to produce milk and fat, the quantity cannot be increased above normal by feed. Many will not feed heavier owing to the high cost of feed, and perhaps they are justified, but no one should begrudge the meal and hay fed the cow which will give a revenue of two dollars for every dollar's worth of feed consumed. It is a profitable way to market feeds. Too many cows give very little returns for the feed. A number of the cows in the College herd giving from 6,000 to 8,000 pounds of milk returned around two dollars for every dollar's worth of feed. This production is not high—not over what every herd should do. A little more study of the individuals in the herd, of feeding and production would show dairymen where they were and we venture to say would lead to some readjustments in the herd management being made. The cows which do not pay a reasonable profit on feed consumed are losing propositions for their owners.

HORTICULTURE.

Wrapping Apples For Box Packing.

Useful information in respect to the wrapping and box-packing of apples is contained in Bulletin No. 2 of the Fruit Commissioner's series. The author states that all apples packed in boxes, except jumble packs, should be wrapped, and furthermore claims that experienced packers can without question pack faster when wrapping the fruit. The advantages claimed for wrapping are several:

1. It serves as a cushion, minimizing the risk of bruising.
2. It prevents rot and fungous diseases spreading from specimen to specimen.
3. It maintains a more even temperature in the fruit.
4. It gives a more finished appearance to the package when exposed for sale.
5. It preserves the freshness in appearance and adds to the keeping qualities.
6. The paper absorbs surplus moisture.
7. It facilitates rapid packing.

Wrapping should be performed with as few movements as possible. The paper should be placed conveniently and a rubber finger-stall worn on the middle finger of the left hand. In placing the paper be sure to have the smooth side up. The paper is held in the left hand and the fruit to be wrapped, in the right hand. The apple is then dropped or thrown into the paper on its side or end. If the pack is to be a side pack, the apple is thrown into the hand on its side; if an end pack, on its end with the calyx to the palm. It is then wrapped with as few movements as possible and placed in the box with the left hand.

The sizes of wrapping paper in common use are:

- 10 x 12 inches for very large apples.
- 10 x 10 inches for counts 56 to 96.
- 8 x 9 and 8 x 10 for counts 138 to 175.
- 8 x 8 for smaller apples.

The following table will be of convenience to the fruit grower in estimating the quantities of paper he will require. It gives the weights of the various sizes of paper per 1,000 sheets:

	8 x 8	8 x 9	9 x 9	10 x 10	11 x 11
15-lb. Duplex.....	2½ lb.	2¾ lb.	3 lb.	4 lb.	4½ lb.
12-lb. Sulphite.....	2 lb.	2¼ lb.	2½ lb.	3¼ lb.	3¾ lb.

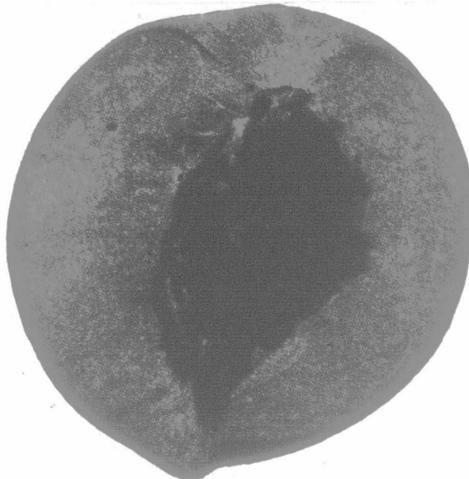
Diagonal packs render layer paper unnecessary, inasmuch as the apples on each tier do not sit directly on top of the apples on the under tier, but in the spaces between them.

While lining paper is unnecessary it adds to the attractiveness of the package and can be used advantageously for the best grades and varieties. Two sheets are required for each box. The sheets are placed in the box on each side, lapping over the bottom slightly and having a fold in the lower corners so that the paper will not be torn on account of pressure when nailing on the cover. The box is then filled and the two sheets lapped over the top.

Crawford Type in Peaches.

The Crawford peach is an old reliable variety so much appreciated that all kinds, good and bad, are frequently paraded under its name by unscrupulous dealers. Where apple varieties are not known many kinds are passed off as Spys to the detriment of the industry, but in the sale of peaches the misrepresentation is possibly carried to a greater extent. The Crawford peach is of a distinct type. It is usually large and oblong, but the distinguishing mark is the prominent apex. As shown in the accompanying illustration the end is carried out to a point which is often slightly curved. On the outside the mature Crawford is of a golden color with a red cheek. The flesh is yellow in color and free stone. The Early Crawford is on the market, in normal seasons, early in September, while the late Crawford appears toward the end of the same month. The Crawford has not been heavily planted during late years, and several newer varieties have taken its place. The St. John and Fitzgerald are much the same in type as a Crawford and prove very accept-

able, while the great bulk of the offering on the markets late in the season is the Elberta, which is a good peach. There are dozens of varieties being offered which are all right, but it is now too ridiculous for local dealers to call everything they have from late August to late October a Crawford. They should know varieties and the season for same, and be able to give their customers some intelligent information in respect to fruits.



Section of Early Crawford.

POULTRY.

Starve birds from 18 to 24 hours before killing.

Mashes give better results than whole grain in the fattening crate.

A cold, dry poultry house is better by far than a warm, damp pen.

Don't leave it until the snow flies to prepare winter quarters for the laying stock.

A small flock well fed will give larger net returns than a large flock improperly fed.

After plucking the bird, thoroughly wash the feet and head. Neatness and cleanliness help to sell dressed fowl.

If you do not wish to make a fattening crate, confine the birds to be fattened in a box stall and feed them on soft feeds.

The pullets to be kept for laying should be placed in a pen by themselves and fed to put them in good laying condition by early winter.

That dark, damp hen-house might be remodelled at small expense. Let in the sunlight and provide some system of ventilation if you want eggs this winter.

The cornerstones of successful poultry raising are: Good birds, facilities and ability for hatching and rearing chicks, right feeds properly fed, and suitable buildings.

For convenience in plucking, the birds may be suspended by a string from the ceiling of the room, attached to their legs. The height can be adjusted to suit the plucker.

Feed lightly at the commencement of the fattening period, increase the allowance the second week and give the birds all they will eat the third week. Keep within the limit of their appetites.

If pullets were hatched in April or early May and properly fed they should commence laying the last of October. If they don't get started early in November there has been something wrong with the strain of fowl kept, or the chicks have not been given a chance during the growing period.

When shipping dressed poultry the crate should be clean and of a size to hold a certain number of birds firmly together to avoid shifting during transit. For 12 birds, weighing from 4 to 4¾ pounds, the inside measurement of the box should be 24¾ by 17¼ by 4¾ inches. Line the boxes with parchment paper.

Some of the spring-hatched birds should be ready for the fattening crate. Soft mashes should be fed. Equal parts of finely-ground oats, buckwheat and cornmeal, mixed to the consistency of a batter with sour milk or buttermilk, makes a very good fattening ration. Shorts and low-grade flour may also be used.

The Value of Meat Food and Milk For Poultry.

To show how absolutely necessary skim-milk, meat scraps, or something of that kind is in feeding laying hens a test was carried on at a certain experiment station with three flocks of Leghorns. Each flock was allowed a range of an acre lot covered with fruit trees, which was cultivated during the summer and planted to a rye cover in the fall. Everything about these flocks was uniform; the environment was excellent. Each flock was given a grain ration of corn, wheat, and oats, and a dry-mash ration of bran and shorts. To pen No. 1 was added 10 per cent. of meat scraps, to pen No. 2 all the skim-milk they would drink; but pen No. 3 was left without any additional food. This test covered two years.

The pen receiving meat scraps averaged for the two years 135 eggs a hen. The skim-milk pen averaged 133.5 eggs. The third pen averaged 36 eggs. The average profit per hen over feed was \$1.47 in pen No. 1, and \$1.40 in pen No. 2, while in pen No. 3 the loss was \$0.043. This difference was due, so far as anyone could see, wholly to the feed.

Repetition of the experiment in the third year brought forth practically the same results. Even though the birds were allowed to roam over a cultivated field, the lack of milk or meat scraps in their ration cut down egg production practically a hundred eggs a hen. The birds without meat food did not grow in size; they were constantly dissatisfied and easily excited. The birds in the milk pen had large, beefy combs; they were heavy in weight, and always satisfied and quiet.

Milk is nearly always available on the farm, and the question sometimes arises in the farmer's mind as to whether it would be better to feed the skim-milk to the hogs or to the chickens.

In this experiment every hundred pounds of milk given to pen No. 2 produced, when compared with pen No. 3, \$1.73 worth more of eggs. This gives a feeding value of \$1.73 for milk to laying hens. Live-stock breeders claim that milk has a feeding value for hogs of \$0.45. If this figure is correct it would pay every farmer to buy tankage for his hogs and give the skim-milk to his chickens. The feeding value of the meat scraps was \$24.20. It cost \$2.50 a hundredweight on the market.—A. G. PHILIPS, Purdue University.

FARM BULLETIN.

Truth and Honesty in Advertising.

A great deal of money has been duped out of people in the past through advertised humbugs. Good advertising is legitimate and necessary. It helps the man with goods to sell and is a distinct aid to those who desire to buy. It is "service" to all people in all places, provided, of course, it is honest, straight-forward business advertising. The object of advertising is service. It is service that builds up to lasting business. It is through service that customers are retained. Advertising men are putting forth a strenuous endeavor to make and keep advertising clean, wholesome, efficient, honest and full of service. Advertising agencies, managers, publishers and editors should all work together to eliminate the humbug. The truth is just as valuable and necessary in the Advertising columns as in the Editorial columns. Overdrawn statements are not required when a good thing is offered through a legitimate campaign. The truth, the whole truth and nothing but the truth is a good basis to work upon; then dress it in language which will appeal to the people, words which carry the power of conviction, and be as good as the words.

There are fakes still on the market. Advertising men do not desire to handle the business which they represent. They must be commended for their stand against advertising intended to take money right out of the pockets of the people and put it in the jeans of the fakir. It will be a blessing when the last of the patent medicine cure-alls and all the rest of the same class of humbugs are forever banned by advertising men and publications. Every line of prepared dope should be sold only after careful analysis by the Department of Public Health and on their authoritative statement that it contained ingredients which would do the work claimed for the concoction in the advertising statements. It is said that in Cleveland, wholesale and retail druggists have entered into an agreement not to carry any lines of patent medicines until the Commissioner of Health has passed upon them. In the state of Ohio there is a law against misbranding, and unless nostrums live up to their branding when under test they have no chance. The retail druggists will not buy new mixtures until they hear from the Health Commissioner and any old patent medicines in stock come under the "misbranded" order if they are not good for what the statement says they are. That is fine. The sooner some such system becomes universal the better. Advertising medicated booze and all kinds of unknown mixtures with fancy names and fanciful claims is not in the interests of advertising, publishers or the people. The Cleveland druggist who refuses to carry patent medicines of unknown value does so in the interests of the people who benefit from his action as he does also in the end through established confidence. The publication which stands between the advertiser and the people, guaranteeing the former the best service for nothing but legitimate advertising, and the latter honest dealing from advertisers, is the one the reliable firms use and the thinking people read. The quality of advertising improves as the years go by. Honesty and integrity are the shortest and surest roads to success.

The Canadian National Still the Greatest of all Fairs.

With considerable space given over to comment and awards in the live stock and agricultural departments it is impossible to place before readers a complete picture and minute description of the thirty-ninth annual Canadian National Exhibition held in Toronto in 1917. On August 25 the gates were thrown open to visitors who might roam at will over an area comprising 264 acres, on which there are erected over seventy buildings. In the twelve major buildings there are over half a million feet of floor space, some conception of the magnitude of the Exposition can be gained from these concrete examples, but add to these the fact that space throughout the grounds is at a premium and the enormity of one's task, who attempts to describe it, presents itself at once. No phase of agricultural, industrial or professional life is neglected unless it be that of law, but even that exerts its influence and order reigns supreme in Exhibition City. It is hard to conceive of a more efficient educational institution than the Canadian National. Everything that enters into one's life or is necessary to his existence is displayed in its most modern form. Commercialism cannot be separated from human enterprise for in all our activities we must either buy or sell something; it may be commodities, it may be labor or it may be brains, so the administration, through a period of years, have built up an enormous collective exhibit of man's handiwork so the people of this and other nations can study the latest and most up-to-the-minute in agriculture, industry and art. It goes further and gives to all a post-graduate course in home-making, and all those things that make for better home and national life. In brief, the Canadian National collects into as small a space as possible the best products of the human hand and mind that the people of the nation may come and see. As an educational factor for the race at large it is without a peer, inasmuch as the influence is for greater efficiency and the improvement of social life. As a permanent, annual event of its kind it is, perhaps, without an equal.

The Government Building, to one's right as the main gate is entered, is always replete with interesting exhibits, but those to be seen this year cannot all be mentioned on account of space. The Dominion Government Wool Exhibit attracted large crowds, for it showed the product in all its grades and in all the steps of its manufacture into the finished articles. The Health section of the building was exceedingly instructive and interesting as well. The Ontario Agricultural College exhibit took on a different aspect this year, being divided into four parts and each part was made a fountain of information on all agricultural topics. Splendid exhibits from the Standing Field Crop Competition and the Vegetable Growers' Competition adorned the walls in the centre wing, and in the midst of all was a display destined to instil thrift enthusiasm into a lavish race of people. There was fish enough on exhibition in this building arrayed by the Fisheries Department, to bring down the price for a while if it could all be released at once for consumption, but not enough to keep it down. The Province of Alberta was showing her goods and revealing her opportunities to the settler, while in the south wing nature was displaying her creations of fish, reptiles, birds, and myriad forms of life. We have only mentioned a part of what was to be seen in the Government Building. One could spend a day there and not see all. Above the door of the Transportation Building is inscribed "Road", "Water", "Rail", but within, the latter two methods of Transportation were submerged in the remarkable display of automobiles, tractors, bicycles, and accessories. The spectacle would impress one with the fact that distance has been conquered and travel by land has become a joy within the reach of rich and poor alike.

The Horticultural Building was abloom with flowers of all hues and verdant with the color of growing plants. It was truly a haven for lovers of the garden. The vegetables were of good quality but few in numbers or quantity. The Manufacturers' Building was resplendent with beautiful costumes, furs, tapestries, carpets, jewelry, pianos, organs, toilet specialties, pure foods, etc. Dairy machinery, cream separators, vacuum cleaners, washing machines, leather goods, pure foods, and toys were all to be seen in the Manufacturers' Annex; while in the Dairy Building inspected meats, dairy products, eggs and other exhibits attracted the eye. In addition to these were the Railways Building, Industrial and Process Building, Army and Navy Equipment Building, Poultry Building and the home for the dogs and cats. Each one was full of things interesting, and machinery, almost human, was turning out its finished product ready for man's use.

In sympathy with the movement for greater production over in the out-door agricultural section were observed many different types of farm implements and twelve distinct makes of tractors. These were climbing elevated platforms to reveal their complete control by the operator; some were being driven and operated by reins as one would a team of horses; another was making circles in the turf with no one at the wheel, but each one was capable of some particular achievement peculiar to itself. In other quarters a traction ditcher was preparing a trench for the tile; threshers were running smoothly; power was doing just what you would like to see it do about the place; everything was alive with industry. Whatever one would like to see was somewhere on the grounds and the unexpected was cropping up everywhere.

In spite of the worst season Ontario has known for some time in respect to millfeed and labor, the live-stock department was a credit to any fair. Comment else-

where will explain fully the strength and quality of the various breeds, but suffice it to say here that the dairy cattle showed a slight falling off compared with last year; the beef cattle were about the same; horses were a shade lighter; sheep were a trifle better, and swine were about equal to the exhibit of 1916. Throughout it was a good display staged by the live-stock industry, which, in spite of handicaps, is in a technically strong position at the present time. Many things of interest in a broad sense were located in different spots on the grounds. The Ontario Department of Highways had built a stretch of road showing six types of construction namely: Concrete, brick-paved road, bituminous concrete road, oiled-top macadam, water-bound macadam and gravel road. Inside an attractive little building were various models. Two of these were of interest in that they showed the different courses or layers in the historic Roman Road and Appian Way which were superior to many modern pieces of construction. There can be no gainsaying this statement for substantial remains still exist in England, France and other countries. Some were built as early as 300 B. C., but on the other hand it is not probable that heavy trucks and powerful motor cars in those times were so numerous and destructive to the highways.

A log cabin built of New Ontario timbers and filled with products brought back from that land of promise was open for inspection. The Health of Animals Branch were located in the Dairy Building with an exhibit of diseased and healthy specimens of meat and parts of animals. Some observers said they could never eat meat again, but when they turned about to the remarkable showing of abattoir-killed, Government-approved carcasses, tastily arranged in large refrigerators against the walls, all their qualms were dissipated at once and the old appetite reappeared. The children of visitors were allotted a play ground where organized play was conducted. An immense monument stood inside of the main entrance to commemorate the semi-centennial of Canada and her part in the great war. These are a few of the special features which could not be omitted.

The military was everywhere about the grounds, and the soldiers from our new and neighboring ally mingled with the civilians and khaki-clad boys of Canada. The aviation, artillery and infantry were branches of the service to which all took off their hats. Each day the Exhibition was brought to a close by a wonderful spectacle before the Grand Stand. With the ancient city of Quebec as a background the birth and development of Canada was lived again. It was a big and successful show. Crowds equal to those of last year attended the first week which was only a few thousand behind the record year of 1913. Records were smashed on some days of the second week and all went away well repaid for their annual visit to the Canadian National.

Light Horses.

Light horses since the advent of the automobile have not been an extra strong feature in the breeding ring at any of our larger exhibitions. They were well up to the average this year and of extra good quality.

Hackneys.—Compared with former years there was a noticeable diminution in the Hackney stallion classes. Speaking in numbers there were only two aged horses and one yearling, leaving two classes without entries. The females, however, were stronger, making a creditable showing, although even in this department the line-ups have been larger in the past. Favorable comment was made regarding the fact that breeders are allowing the foals and yearlings to retain their full length of tail. Docking seems to render the Hackney less desirable as a saddle horse, so by omitting this operation a wider sphere of usefulness as well as a broader market is thrown open.

Colorito and Spartan, the two aged horses shown, require no comment to introduce them to admirers of the light horse. They have been successful show animals, and now their progeny are coming on to demonstrate their actual and unmistakable value as sires. Waverley King, the yearling, was a very promising young horse, capable of showing well in strong company.

The fillies were a desirable lot, but perhaps the best exhibition of action, staged by the females, should be credited to the yeld mares. Model's Queen, last year's champion, duplicated her performance of one year ago, winning her class and the championship. She is showy and a good, clean mover. Princess Eudora, in the same class, had some points about her that appeal very strongly, yet her performance was not equal to that of Model's Queen. Wild Agnes was a popular winner among the five brood mares that were presented, but when it came to the progeny a young chestnut foal out of Miss Derwent and sired by Spartan was undisputedly the best.

Exhibitors.—Graham Bros., Claremont, Ont.; Jas. Tilt, Brampton, Ont.; Jos. Telfer, Milton West, Ont.; W. E. Jewell, Bowmanville, Ont.; J. F. Husband, Eden Mills, Ont.; Geo. M. Anderson, Guelph, Ont.; Chas. Grimsley, Eglinton, Ont.; A. Shields & Sons, Canfield, Ont.; Dr. W. J. R. Fowler, Toronto; J. M. Gardhouse, Weston, Ont.

Judges.—H. M. Robinson, Toronto, and Andrew Little, Sewickley, Pa.

Awards.—Stallion, aged: 1, Graham Bros., on Colorito; 2, Tilt, on Spartan. Stallion, 1 year: 1, Telfer, on Waverley King. Filly, 3 years: 1, Jewell, on Lily Denmark; 2, Husband, on Brookfield Princess. Filly, 2 years: 1, Tilt, on Dainty Spartan; 2 and 3,

Jewell, on Terrington Doris and Terrington Dora Filly, 1 year: 1, Husband, on Brookfield Belle; 2, Jewell on Lady Jewell; 3, Grimsley, on Spartan's Gold Flash. Yeld mare: 1, Shields, on Model's Queen; 2, Telfer, on Princess Eudora; 3, Tilt, on Minnie Derwent. Brood mare and foal: 1, Dr. Fowler, on Wild Agnes; 2, Tilt, on Miss Derwent; 3, Jewell, on Rosaline; 4, Grimsley, on Woodhatch Gold Flash. Foal of 1917: 1, Tilt, on King Spartan; 2, Jewell, on Terrington Madge; 3, Dr. Fowler, on a horse colt; 4, Grimsley, on Spartan Flash. Mare with two of her progeny: 1, Tilt, on Miss Derwent; 2, Jewell, on Rosaline; 3, Grimsley, on Woodhatch Gold Flash. String of five: 1, Tilt. Champion stallion: Graham Bros., on Colorito. Champion mare: Shields, on Model's Queen. Gardhouse had the best stallion and mare, 14 hands 1 inch and under, in Talke Fire Alarm and Whitegate Queen Victoria respectively.

Standardbreds.—A number of the Standardbred classes were fairly strong, while others indicated a scarcity of horses. The aged-stallion class and the brood mare class were among the best. Axworthy walked away with the red ribbon in the aged class of stallions, and he was certainly entitled to it. The list of awards will indicate the numbers out in the remaining stallion classes. Two beautiful mares were forward in the aged class for females. Juliett McKinney, a black, nicely-turned thing, with a splendid way of going, particularly behind, won over the light bay, Lollee. But Axworthy and Juliett McKinney were ultimately made the champion stallion and mare respectively. O. B. Shepperd, Toronto, and Dr. J. Sinclair, Cannington, Ont., made the awards.

Exhibitors.—T. D. Elliott, Bolton; A. C. McMillan, Erin; Ashley Stock Farm, Foxboro; Crow & Murray, Toronto; N. S. Goodison, Lampton Mills; N. & L. Davies, Don Mills Rd.; Ira A. Mabee, Aylmer; Paterson Bros., Agincourt; D. Douglas & Sons, Mitchell; C. E. McCaffrey, Russell; Sam Hastings, Schomberg.

Awards.—Aged stallion: 1, Crow & Murray, on Burt Axworthy; 2, Mabee, on Black Joe; 3, Goodison, on Bingen Pilot. Aged stallion, (pacer): 1, Crow & Murray, on John R. Hall; 2, Ashley Stock Farm, on Geo. Rayner. Stallion, three years: 1, Crow & Murray, on Ithamar; 2, Paterson Bros., on Bob McKerron. Stallion, two years: 1, Ashley Stock Farm, on Jack Rayner. Stallion, one year: 1, Davies, on Judge Parks; 2 and 3, Douglas, on Flashlight and Sphinxwood Chimes. Aged mares: 1, Hastings, on Juliett McKinney; 2, McCaffrey, on Lollee. Filly, three years: 1, Ashley Stock Farm, on Ella Bleecker. Filly, two years: 1 and 2, Ashley Stock Farm, on Winkle Girl and Clara Gay. Filly, one year: 1 and 2, Ashley Stock Farm, on Cynthia McMartin and Muriel Longwell. Brood mare: 1 and 2, Paterson Bros., on Ideal Princess and Lady Arley; 3, Ashley Stock Farm, on Phillywinkle. Foal: 1 and 2, Ashley Stock Farm; 3, Paterson Bros. Best stallion, any age: Burt Axworthy. Best mare, any age: Juliett McKinney. Best string of five: Ashley Stock Farm.

Roadsters.—The Roadsters were represented by twenty-one individuals. Considerable interest was taken in the judging. The aged-mare class was superior to classes shown in previous years. Five magnificent mares lined up. Ruby, the winner, was a beautiful traveller, but did not come up to Patricia in form. Dandy Dell, exhibited by L. Fried, was considered to be the best Roadster mare shown. She had form and could move in a delightful manner. Judges were: Dr. Sinclair, Cannington, and O. B. Shepperd, Toronto.

Exhibitors: S. W. Blewett, Peterboro; A. Vance, Georgetown; Crow & Murray, Toronto; A. L. Chambers, Milton West; I. A. Mabee, Aylmer; S. Macklin, Weston; L. Fried, Roseville; J. Brown & Sons, Galt; R. W. Craw, Fergus; James Tilt, Brampton; Paterson Bros., Agincourt; Jos. Telfer, Milton West; N. S. Goodison, Lampton Mills; Ashley Stock Farm, Foxboro.

Awards.—Aged mare, (5 in class): 1, Crow & Murray, on Ruby; 2, Mabee, on Helen Lexington; 3, Blewett, on Patricia. Filly or gelding, three years old, (3): 1, Fried, on Dandy Dell; 2, Brown, on Evelyn Wilkes; 3, Macklin, on Lady Pointer. Filly or gelding, two years, (3): 1, Telfer; 2, Paterson Bros., on Lady Goshen; 3, Craw, on Lady Grey. Brood mare, (4): 1, Ashley Stock Farm, on Bessie Longwell; 2, Goodison, on Gypsy L; 3, Tilt, on Rose. Foal.—1, Tilt; 2, Goodison; 3, Ashley Stock Farm.

Carriage.—Graceful carriage and high stepping are expected in carriage horses, and spectators were not disappointed in the class shown. Wild Rose, considered to be the best mare of the breed in the ring, was a beautiful mare and carried herself nicely. She worked her knees and had great hock action. Several winners in this class, and also in the Roadsters, were sired by that noted horse, Spartan.

Exhibitors.—Crow & Murray, Toronto; Jas. Tilt, Brampton; Wm. C. Howard, Rockwood; G. M. Anderson, Guelph; J. Lerch, Preston; R. H. Livingstone, Woodbridge; J. F. Husband, Eden Mills; Paterson Bros., Agincourt; N. Wigglesworth, Georgetown; Bater Bros., Oakville.

Awards.—Aged mare: 1 and 2, Crow & Murray, on Wild Rose and Primrose; 3, Tilt, on Maud. Filly or gelding, three years: 1, Tilt, on Pearl; 2, Anderson, on Playgirl; 3, Lerch, on Lady. Filly or gelding, two years: 1, Livingstone; 2, Husband, on Nellie; 3, Anderson, on Jennie. Filly or gelding, one year: 1, Wigglesworth, on Florence; 2, Paterson Bros., on Lady Grey; 3, Tilt, on Teddy. Brood mare: 1, Wigglesworth, on Gladys; 2, Husband, on Brigham Belle; 3, Tilt, on Nettie. Foal: 1, Tilt, on Sandy; 2, Husband, on Jim 3, Bater Bros.,

on Snow Storm. Judges: Dr. Sinclair, Cannington, and O. B. Shepperd, Toronto.

Ponies.—A few exhibitors reminded the public that they should not forget the pony as a useful pet for the children. The entries were not numerous, but the type and quality presented would suffice to impress upon interested onlookers a standard of excellence to guide them in making selections. Talke Fire Alarm, the sensational little Hackney pony, is always ready to give an exhibition of extreme and almost ideal action, and his performance this year was quite up to par. His stable mate, Whitegate Queen Victoria, is another queenly mover of her kind, so together they carried home again to their stables at Weston the ribbons that denote the championships.

Awards.—Stallion, 12 hands and under: 1, Osborne Cartnell, Toronto, on Preece; 2, Jas. Creech, Lambton Mills, Ont., on Highland Laddie. Stallion, over 12 hands and up to 13: 1 and 3, J. M. Gardhouse, Weston, Ont., on Talke Fire Alarm and Fire Alarm; 2, J. F. Husband, Eden Mills, Ont., on Whitegate Pimple. Filly, 3 years and over, 12 hands and over: 1 and 3, Creech, on Nettie Horace and Robertland Lenitta; 2, Crow & Murray, Toronto, on Harviestoun Mimic. Brood mare and foal, 12 hands and up to 13: 1, Gardhouse, on Whitegate Queen Victoria. Berkley Swell and foal were the only entry in a class for such between 13 and 14 hands. This mare was shown by J. M. Gardhouse, who also won on foal of 1917. The Gardhouse entry in the class for mare and two of her progeny was the only one. The champion stallion and mare were Talke Fire Alarm and Whitegate Queen Victoria respectively.

Dairy Cattle.

The success of the dairyman and of all the industries dependent on dairying depends largely on the type of cow, and on the man behind the cow. Of late years rapid strides have been made towards establishing breed standards in type and conformation and in increasing production. The exhibitions have played no small part in this. With two dairy breeds in particular there is a marked uniformity in type in every class shown in all parts of the country. The other breed has not been brought to this stage yet, as evidenced by animals of distinctly different types competing in the same classes. Dairy classes were not so well filled at the National this year as on former occasions, nor was the stock in as high condition as it might have been. There is some excuse for it. Labor is scarce and feed is dear. However, the entries were by no means thin, but were in good working form with a few herds in excellent show condition. There was keen competition in practically every class and honors were well distributed. No on herd in any breed had a walk-away, except in the case of Ayrshires, where R. Ness secured the lion's share of the money with his uniformly good herd. Champions of many shows again entered the ring, but some were forced to give way to younger blood of modern type and in better bloom.

The lateness of the harvest undoubtedly kept stockmen from attending the show and was responsible for the lack of interest in the judging. It is some years since spectators at the dairy ring-side were so few. Whenever possible young men should plan to attend one large show each year and watch the judging of their favorite breed, in order that they may see the type and conformation of animals that win. They can then breed with a definite aim in view. The show sets the standard for type, and type and production cannot be separated. The heavy producers that can also win in strong competition command the high prices. It is always interesting to watch the judging of the herd and group classes, and to study the relationship of one animal to another in the various entries. Some sires stamp their individuality on their progeny more pronounced than do others. In some cases the young stuff resembles the dam more than the sire. Some choice animals throw inferior stock, and vice versa. It is well for the

breeder to note these things, and no place can they be seen so clearly as in the show-ring. Some of the herds this year were well graded and showed uniformity while others showed quite a difference in type. The show-ring is the stockman's school, and the value he receives depends upon himself whether he be spectator or exhibitor. This year's dairy classes were worthy of study.

Holsteins.—The Black and White breed was as strong numerically as the other two dairy breeds combined, there being 140 animals brought out. In all but one class there was competition for all the prizes, and as many as sixteen animals appeared in one class. Uniformity of type and conformation was not so marked as it was last year. In every class there were the big, strong, robust individuals tending a little to coarseness, and the finer-framed, high-quality animals which made judging a difficult problem, as there was evidence of heavy production in individuals of both types. It is regrettable that judges of Holstein cattle are not agreed on these important points. It is necessary for the welfare of the breed that a standard type be set and adhered to by the judges. It is confusing to breeders and spectators when a judge one year is strong on size and capacity, while the following year quality is the long suit. The judge of the Holsteins had heavy classes to place this year, and while on the whole his work was satisfactory, it was difficult to follow him in some classes and to cipher out why certain animals were placed as they were. If time would permit a judge to give reasons while the exhibitors were in the ring the shows would have greater value. Breeders would then know the weak points of their animals and all would be better satisfied. The decision of a judge means a lot financially to breeders. A winner and its offspring usually find a ready market. The classes for three animals, the get of one sire, and two, the progeny of one cow, were interesting studies in the power of prepotency. Some were of the same build and type, while others showed considerable difference. J. M. Trueman, of Truro, judged.

Seven massive-framed animals responded to the call for aged bulls. It was a particularly strong class; type and quality being well marked. Lakeview Dutchland Hengerveld, the grand champion at Toronto and London last year, again headed his class and was good enough to capture the highest honors again this year. He has developed considerably during the year and appeared in excellent form. He is a well-balanced animal, with straight lines and a thick, deep body. His masculine appearance attracts attention the moment he comes into view. Bonerger Hartog, exhibited by J. Telfer, is no mean individual and defeated Sir Belle Fayne, the one-time champion, for second place. He is a long, deep-bodied bull with strong constitution and good quality. Sir Belle Fayne has lost some of his bloom, but he has the quality and character of a good dairy bull. He has little fault could be found with King Segis Pontiac Posch. He has excellent quality and form, but had barely the scale of some of his competitors.

In the two-year-old class were two entries that were similar in conformation, depth and thickness. Both were well proportioned, and if they had been marked the same it would have been hard to tell them apart. Plus Inka Artis was given the preference, as he was a trifle smoother and a very stylish animal. Smithdale King Colantha was a close second. Prince Colanthus Canary A. was not quite as forward in flesh as his competitors and was scarcely as well balanced. However, he has every appearance of a right good animal.

There were ten competitors in the yearling class and the judge had difficulty in picking out a winner, as all were not of the same type. Sir Douglas, a very well-proportioned calf, with straight lines and strong constitution, was placed first, with King Sylvia Keyes, a little finer quality bull but not showing as strong masculinity, in second. In third place stood King De Kol Ormsby, a smooth, high-quality individual with barely the capacity of the others. He had a satiny finish and was considered good enough to place at the top in a special class for junior yearlings. Then in the

final analysis he secured the junior championship. In fourth and fifth places were two big, strong, capacious bulls for their age that were fairly smooth and had quality and dairy type combined. They would not have looked out of place higher up in the line.

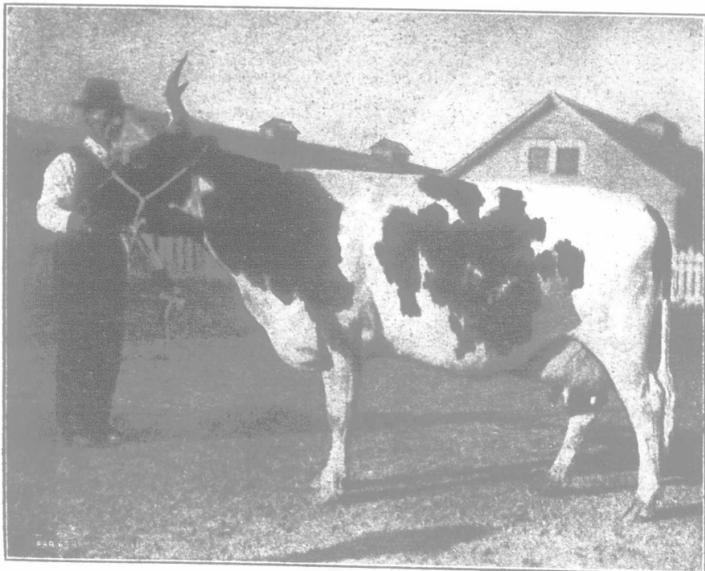
There was a fine showing of senior calves and some which were defeated will yet be heard from. King Fayne Alcartra stood first. He is a straight, growthy youngster, but had not the finish of some of the others. The second-prize calf, Prince Keyes Mercena showed superior quality and finish but was considerably smaller. He is a well-moulded youngster and would not have looked out of place at the head of the class. Fayne Artis Ormsby, a little plainer calf, with barely the scale of the winner, stood third, with Master Paul Canary, a deep, thick-bodied, rugged-constitutioned calf, in third. He might be faulted for being a little rough over the shoulder, but he had that masculine appearance that is wanted in a bull.

Fifteen strong, growthy youngsters lined up in the junior class. Axie 4th Fayne was finally placed first. He has size and quality combined. Little fault could be found with any of the entries in this class.

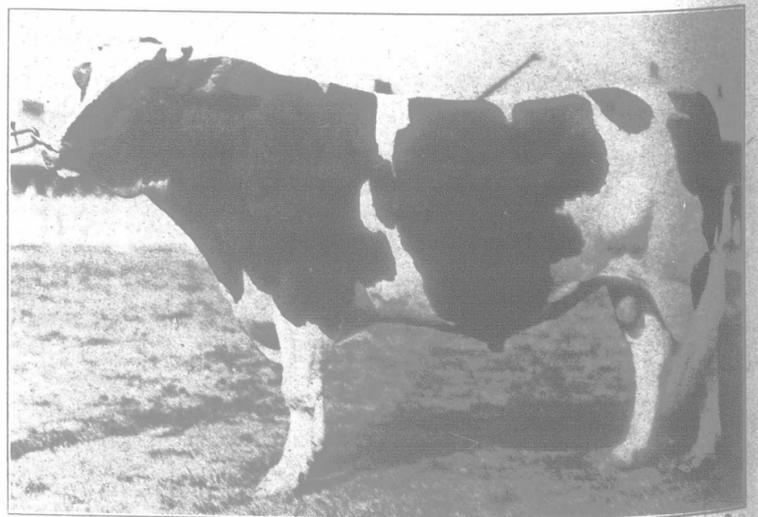
Seven aged cows in various stages of lactation made a fairly strong line-up. The majority of the entries had been longer in milk than the entries in this class were last year, consequently those with large distended udders were in the minority. However, the udders showed the quality and conformation that goes with heavy production. Ladoga Idoline Veeman was placed at the top. Although she has been in milk nine months, she gave every indication of still going strong at the pail. Her udder extended well up between thin hams, and the quarters appeared to be uniform and well developed. The veining was quite pronounced. While she was not as long bodied a cow as some of her competitors, she had scale and capacity, with splendid finish. Her bright eye and clean-cut head made her an attractive cow. Jess and Emma Pauline De Kol, stablemates, were a little longer throughout than the winner and were in a little better bloom. They both had very well-shaped udders, although not so large as that carried by some others. The teats were not so correctly placed as dairymen like to have them. The latter cow had scarcely the depth at the fore-flank as the two above her, nevertheless she would not disgrace the best herds. In fourth place stood Beauty Pietertje Mechthilde, a cow which has been fresh only a few days. While this gave her a full udder which was well balanced, it tended to give her a somewhat shallow appearance as she had not regained her normal shape. She is a strong-framed cow, with not quite as fine quality as those placed above her. The other entries had plenty of quality and finish, but had barely the substance and udder development of the winner.

Two distinct types were present in the three-year-old class in milk, and Canary Mercedes Hartog, the cow with greatest substance and strength, although tending towards coarseness, was decided on for the winner. She had the capacity and udder development for heavy production, but she was not as breedily a looking cow as those placed below her. Her head was a trifle plain. Elmdale Changelaine Pearl, a breedily, well-fitted cow with fine quality and well-balanced udder was second. She had scarcely the depth of the winner. Fine-fibred cows of excellent dairy type, but that could stand more spread and scale, were third and fourth. The fifth cow was not in condition and was a little tucked up at the fore flank.

Queen Lyons Schuiling, first in the two-year-old class in milk, was a breedily, fine-quality heifer with a straight, strong back, and broad loin and long quarters. She was fairly deep and thick at the heart but would be the better of more depth of rib. While the indications for milk were promising the teats were not evenly placed. Aaggie Wayne Vincent, an attractive, well-proportioned heifer with character and quality indicated at every point was second. She carried a splendid udder for a heifer, and it was attached high behind and extended



Chapmanton Henry.
Senior and grand champion Ayrshire female at Toronto for R. R. Ness, Howick, Que.



Lakeview Dutchland Hengerveld 2nd.
This Holstein bull was champion at the Canadian National in 1916, and repeated the performance this year for W. G. Bailey, Paris.

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forward. The third prize went to a typey, well-built cow with a balanced udder, while a big-framed heifer in good heart was fourth.

Nine entered the contest in the class for aged cows, not milking. Ferndale Calamity was chosen from the number to head the class, and later was declared the banner bearer of the females. She is a big, deep, thick cow with a strong top and carries a mammary system that appears capable of taking care of heavy production. The large teats were evenly spaced but one quarter looked to be a trifle deficient, although when milk is let into it it may fill out. There were finer quality cows in the ring but she could not be faulted too severely in this point. Hebon Beauty Bonheur, a breeder cow with plenty of scale and strong constitution, was second. In some points she was superior to the winner. In third place was a rangy, typey cow about due to freshen.

The two-year-old class not in milk was headed by Sadie Vale Posch, a beautiful heifer of excellent quality and finish. Canary Tensen De Kol, in second place, was as good a dairy type as any in the ring, but had barely the finish of the winner. Manor K. S. Nicols stood third. She was a breedy heifer with excellent quality and a loose, pliable skin, but she dropped somewhat more than is desirable at the tail head. There were twelve in this class, and the difference in type and forwardness in milk made it a rather uneven class and one hard to place.

Both senior and junior yearling classes were represented by nine individuals. The winners in both classes were sired by Lakeview Dutchland Hengerveld 2nd and bore tribute to the strong individuality of the sire. The other contestants were growthy heifers that have every indication of developing into typey, well-balanced cows.

Sixteen growthy, breedy calves lined up in the class for senior calves. They were as uniform a class as appeared in the Holstein ring. Sevangeline Snowflake of Oak Park, the winner and also junior champion, had barely the capacity of some of the others, but she was a fine-fibred youngster of good conformation. Aaggie Butter Baroness, a beautiful calf, was first in the junior class of fifteen. Her straightness of lines, smoothness and uniformity of development attracted attention. No mean youngster stood second in Madame Tensen of Oak Park. She was a shade deeper at the heart and was in show fit. Below her were calves that it will take something extra good to beat next year if nothing arrests their development.

Exhibitors.—W. G. Bailey, Paris; Gordon S. Gooderham, Clarkson; Jos. Telfer, Milton West; M. H. Haley, Springfield; S. Lemon & Sons, Lynden; F. Rowe, Curries; Chas. Haviland & Sons, Wilsonville; A. E. Hulet, Norwich; Dymment Bros., Dundas; J. A. Orchard, Shedden; L. H. Lipsit, Straffordville; G. F. Mahon, Woodstock.

Awards.—Aged bull (7 in class): 1, Bailey, on Lakeview Dutchland Hengerveld 2nd; 2, Telfer, on Bonerges Hartog; 3, Haley, on Sir Belle Fayne; 4 and 6, Gooderham, on King Segis Pontiac Posch, and Hengerveld De Kol Posch; 5, Haviland, on Canary Trentona Segis; 7, Lemon, on Pontiac Korndyke Plus. Bull, two years, (3): 1, Lemon, on Plus Inka Artis; 2, Dymment, on Smithdale King Colantha; 3, Hulet, on Prince Colanthus Canary A. Bull, one year, (10): 1, Haley, on Sir Douglas; 2, Bailey, on King Sylvia Keyes; 3, Rowe, on King De Kol Ormsby; 4 and 5, Hulet, on Prince Bonheur Abbecker, and Annette's Prince Abbecker; 6, Gooderham, on King Segis Johanna; 7, Haviland, on Manor King Segis Korndyke. Junior yearling, special by H. F. Association, (7): 1, Rowe, on King De Kol Ormsby; 2, Hulet, on Count Canary Sylvia; 3, Gooderham, on King Segis Johanna; 4 and 7, Haviland, on Manor King Segis Korndyke and Braeside King Segis; 5, Lemon, on Prince Plus Pontiac Artis; 6, Mahon, on Colanthus Posch Abbecker. Senior calf, (9): 1, Haley, on King Fayne Alcartra; 2 and 4, Hulet, on Prince Keyes Mercena and Master Paul Canary; 3, Orchard, on Fayne Artis Ormsby; 5 and 6, Gooderham, on Manor Korndyke Segis and Manor Segis Echo. Junior calf, (15): 1 and 2, Lipsit, on Axie 4th Fayne and Ragcroft Segis Spofford; 3, Gooderham, on Manor Segis Posch; 4 and 7, Haley, on Duke Colanthus Belle Abbecker and Baron Colantha; 5, Mahon, on Quaker Sir Segis Posch; 6, Hulet, on Prince Colanthus Veeman. Senior and grand champion bull: Bailey, on Lakeview Dutchland Hengerveld 2nd. Junior champion: Rowe, on King De Kol Ormsby. Aged cow in milk, (7): 1 and 7, Hulet, on Ladoga Idoline Veeman and Mercena Schuiling 6th; 2 and 3, Bailey, on Jess and Emma Pauline De Kol; 4, Dymment, on Beauty Pieterje Mechthilde; 5 and 6, Gooderham, on Holmstead Howitzer and Pont Car Born Calamity. Aged cow, not in milk, (9): 1, Lemon, on Ferndale Calamity; 2, Hulet, on Hebon Beauty Bonheur; 3, Haley, on Ourvilla Lady Abbecker; 4, Dymment, on Bonnie Staple; 5 and 6, Lipsit, on Baroness De Kol and Keyes Segis Walker Pieterje; 7, Gooderham, on Countess Maud Posch. Cow, three years old, in milk, (6): 1, Dymment, on Canary Mercedes Hartog; 2, Hulet; 3, Lemon, on Countess Plus; 4, Gooderham, on Manor P. H. Lyons; 5, Haley, on Cornish Lady Margaret Mercedes; 6, Haviland, on Mercena De Kol Calamity 2nd. Cow, three years old, not in milk, (2): 1, Hulet, on Duchess of Norfolk; 2, Haviland, on Grace De Kol Fayne. Heifer, two years, in milk, (6): 1, Bailey, on Queen Lyons Schuiling; 2, Gooderham, on Aaggie Wayne Vincent; 3, Lipsit, on Forest Ridge Fayne Calamity; 4, Hulet, on Lady Veeman Abbecker; 5, Haley, on Baroness Fayne Colantha; 6, Haviland, on Kate Abbe Fayne. Heifer, two years, not in milk, (12): 1, Hulet, on Sadie Vale Posch; 2 and 5, Dymment, on Canary Tensen De Kol and Beauty Hark Beets; 3, Gooderham, on Manor K. S. Nicols; 4, Lemon, on Tiny Plus Inka; 6, Lipsit, on Woodcrest De Kol Mer-

cedes; 7, Bailey, on Jess De Kol Tensen. Heifer, senior yearling, (9): 1, Bailey, on Countess Hengerveld Fayne; 2 and 4, Hulet, on Fancy Maid 2nd and Pauline Colantha Echo; 3 and 7, Haley, on Toitilla Butter Baroness and Miss B. B. N. De Boer; 5, Gooderham, on Manor K. S. Lady; 6, Dymment, on Daisy Springbrook. Heifer, junior yearling, (9): 1, Bailey, on Dutchland Gretchen Tensen; 2, Lipsit, on Forest Ridge Segis Calamity; 3, Haley, on Mary Butter Baroness; 4 and 7, Lemon, on Spink's Evergreen and Countess Evergreen; 5, Hulet, on Madame Pauline Sylvia; 6, Haviland, on Braeside Lulu Segis. Heifer, senior calf, (16): 1, Bailey, on Sevangeline Snowflake of Oak Park; 2 and 4, Haley, on B. B. Cornucopia, and Colantha Fayne Butter Girl; 3 and 5, Hulet, on Pauline Colantha Princess and Mercedes Schuiling Posch; 6, Lemon, on Countess Plus Pontiac; 7, Gooderham, on Manor Pontiac Calamity. Heifer, junior calf, (15): 1 and 6, Haley, on Aaggie Butter Baroness and Daisy Fayne Posch; 2, Bailey, on Madame Tensen of Oak Park; 3 and 4, Hulet, on Ladoga Idoline Mercena A. and Maud Colantha Abbecker; 5, Gooderham, on Manor Segis Inka; 7, Lemon, on Valentine Plus Pontiac. Three, get of one sire: 1, Haley; 2, Hulet; 3, Bailey; 4, Lemon; 5, Gooderham; 6, Lipsit. Two animals, progeny of one cow: 1, Lipsit; 2, Hulet; 3, Bailey; 4, Haley; 5, Lemon; 6, Gooderham; 7, Dymment. Senior herd: 1, Bailey; 2, Lemon; 3 and 5, Haley; 4, Gooderham; 6, Dymment; 7, Haviland. Junior herd: 1, Bailey; 2, Haley; 3, Hulet; 4, Gooderham; 5, Lemon; 6, Haviland; 7, Dymment. Breeders' herd: 1, Haley; 2, Hulet; 3, Lipsit; 4, Bailey; 5, Gooderham; 6, Lemon; 7, Dymment. Senior and grand champion female: Lemon, on Ferndale Calamity. Junior champion female: Bailey, on Sevangeline Snowflake of Oak Park.

Ayrshires.—Although not so largely represented at the National as in former years, spectators had an opportunity of studying the most approved Ayrshire type and conformation as representatives of this breed were led into their respective classes in the ring. Ayrshire herds showed marked uniformity of type. The cows in milk carried well-developed udders with fair-sized teats evenly placed. The sires on the whole had character and the masculine appearance so much desired in the head of the herd. Classes for young stuff were much better filled than were the classes for mature stock, and promising youngsters returned to their stalls without having gotten into the money. Many of the animals were appearing in the show-ring for the first time; others had been in the fray at Toronto on previous occasions, and there were those who had recently crossed the water. In all there were sixty-nine individuals. W. H. Hunter, of Grimsby, placed the awards.

In the aged-bull class, Hillside Peter Pan carried off the honors and was awarded the senior championship. He is not quite so fleshy as in 1916, and this really improved his appearance. He still carries a surplus of meat on the top of the neck for a dairy bull; otherwise he cannot be faulted much. He has capacity, type, style and character which make him a show animal. However, he had a close competitor in Glenhurst Torrs Mayor, a younger bull with great spread and depth of ribs, with straight lines and good quality. He, too, could be faulted for having too beefy a neck, and he was not quite so smooth over the shoulder or as full in the quarters as the older animal. Fairview Milkman, while an excellent individual, lacked a little in finish for the company he was in.

In the two-year-old class, Snow King had greater capacity than his competitor and was equal in other points. Both entries had quality and the appearance of being good stock bulls. With a little more age, White Duke of Menie might appear to better advantage.

The junior and grand champion honors went to Ness' Netherhall Countermark, a smooth, high-quality yearling, with an aristocratic bearing which won his class over Springbank Dairy Boy, a splendid individual but lacking in finish.

Ten senior calves competed for four places. It was a strong class. Few flaws could be found in any of the entries. Burnside Rising Star Master, a particularly smooth, stylish calf with straight lines and perfect arch of rib, stood first, with Humshaugh Perfect Peter, a little larger animal with exceptionally deep body and alert appearance, but rarely as smooth throughout, in second place. The winner of the white ribbon was a well-balanced, breedy calf from Laurie Bros.' herd. Entries in both the calf classes were all thick and deep at the heart. They were excellent individuals and many of them will come into prominence as they develop further.

Humshaugh Kate, the winner of the aged-cow class at Toronto last year, was forced into second place, in spite of her large capacity, high quality, and dairy form, by Chapmanton Henny, which later won the premier honors over all females of the breed. Both cows had that typical triple-wedge form, roominess of barrel and milking machinery which is sought after in dairy matrons. Both had quality, but the winner was a little more forward in milk and if anything showed greater capacity. Balancing one point against another there was not much difference. Third and fourth in this class were stablemates of the winner, and carried splendid udders. They had excellent conformation and true Ayrshire type. No mean individual stood fifth. She showed every indication of having a strong constitution. Her arch of rib, strong loin, long quarters and smoothness commanded attention. However, she was not quite the same type as the four above her, and while her udder was large and of good quality, it was not quite so well balanced as the udder of her competitors.

Burnside Dorothy M., winner in the three-year-old class in milk, did not have the scale of the entries in the previous class, nor of some of the cows placed below her, but her strong constitution and well-developed

udder and prominent veins placed her above the particularly straight-lined, deep, thick cow, Fannie of Gladden Hill.

The grand champion female of last year's show circuit appeared in the three-year-old class not in milk. She is the same straight, typey cow that she was last year, but her stable mate, Townfoot Sunbeam, had greater capacity, an excellent constitution and superior mammary system. Mayflower worked into third place in this class. She is a right kind of cow with well-arched ribs, broad loin, and desirable quarters and udder. The cows standing fourth and fifth were a trifle rangy for the company they were in, but they are the type some breeders prefer. They had every appearance of being useful cows.

Three strong, typey heifers appeared when class for two-year-olds in milk was called. Humshaugh Perfect Lady 2nd, an attractive heifer with a fine-quality udder and constitution, and capacity of body to keep up heavy production, secured the red ribbon. Below her were straight, typey animals of splendid dairy conformation.

The classes for yearlings and calves were not so well filled as usual, but not one mediocre animal appeared in any of the line-ups. All were strong, growthy individuals with smoothness of conformation and fine quality. Some were smaller than others, owing to a difference in age; other than that, decisions had to be made on fine points. Most of them had that clean-cut quality which commands attention. The junior champion was the winner of the junior yearling class, Auchinbray Victoria 8th. She is a particularly sweet heifer; in fact there were several in the younger classes that if nothing happens will be in the front ranks in their classes in years to come.

Exhibitors.—Alex. Hume & Co., Campbellford, Ont.; Laurie Bros., Agincourt, Ont.; R. R. Ness, Howick, Que.; Jas. B. Ross, Meadowvale, Ont.; Wm. Stewart & Sons, Campbellford, Ont.

Awards.—Aged bull (3 in the class): 1, Hume & Co., on Hillside Peter Pan; 2, Ness, on Glenhurst Torrs Mayor; 3, Laurie Bros., Fairview Milkman. Bull, 2 years, (2): 1, Ross, on Snow King; 2, Stewart & Sons, on White Duke of Menie. Bull, 1 year, (2): 1, Ness, on Netherhall Countermark; 2, Stewart & Sons, on Springbank Dairy Boy. Bull, senior calf, (10): 1 and 4, Ness, on Burnside Rising Star Master, and Burnside Finlayson Master; 2, Hume & Co., on Humshaugh Perfect Peter; 3, Laurie Bros., on Gladden Hill Free Trader. Bull, junior calf, (4): 1, Ness, on Burnside Irene's Master; 2, Hume & Co., on Humshaugh Sir Peter; 3, Stewart & Sons, on Sprightly Boy of Menie; 4, Ross, on Mowin Heather King. Senior champion bull: Hume & Co., on Hillside Peter Pan. Junior and grand champion bull: Ness, on Netherhall Countermark. Aged cow, (6): 1, 3 and 4, Ness, on Chapmanton Henny, Grassmilles Flora, and Dalbible Jemmima Jane 2nd; 2, Hume & Co., on Humshaugh Kate; 5, Laurie Bros., on Shannon Bank Lucy. Cow, 3 years, in milk, (5): 1 and 3, Ness, on Burnside Dorothy Maud, and Burnside Lucky Darling; 2, Laurie Bros., on Fannie of Gladden Hill; 4, Hume & Co., on Humshaugh Snowball 2nd; 5, Stewart & Sons, on Sprightly of Menie 3rd. Cow, 3 years, not in milk, (6): 1 and 2, Ness, on Townfoot Sunbeam and Burnside Maggie Finlayson 5th; 3, Stewart & Sons, on Mayflower; 4 and 5, Laurie Bros., on Annie of Meadowvale, and Topsy of Gladden Hill. Heifer, 2 years, in milk, (3): 1, Hume & Co., on Humshaugh Perfect Lady 2nd; 2 and 3, Ness, on Burnside Baroness 2nd, and Burnside Tipperary Blossom. Heifer, 2 years, not in milk, (3): 1, Ness, on Burnside Barbara; 2, Laurie Bros., on Ruby of Craigielea; 3, Stewart & Sons, on Sprightly Dolly of Menie. Heifer, senior yearling, (6): 1, Ness, on Burnside Lucky Lady; 2, Laurie Bros., on Dewdrop of Menie 2nd; 3, Stewart & Sons, on Mollie of Menie; 4 and 5, Hume & Co., on Humshaugh Helen 3rd, and Humshaugh Canty 3rd. Heifer, junior yearling, (5): 1, 2 and 3, Ness, on Auchinbray Victoria 8th, Burnside Barbara 2nd, and Drumsnie Primrose; 4, Hume & Co., on Humshaugh Lady Helen; 5, Stewart & Sons, on Red Rose of Menie. Heifer, senior calf, (6): 1 and 2, Ness, on Burnside Randy 2nd, and Burnside Lucky Lady 4th; 3, Stewart & Sons, on Trixie of Menie; 4 and 5, Laurie Bros., on Sunnybrook Lady Jane, and Brownie 4th. Heifer, junior calf, (8): 1, Hume & Co., on Humshaugh Helen 4th; 2 and 4, Ness, on Burnside Spicy Mamie, and Burnside Silver Bell 13th; 3 and 5, Laurie Bros., on Glad Hill Pet 4th, and Glad Hill Snowflake 2nd. Three animals, get of one sire: 1 and 2, Ness; 3, Hume & Co.; 4, Stewart & Sons; 5, Laurie Bros. Two, progeny of one cow: 1 and 4, Ness; 2, Laurie Bros.; 3, Hume & Co.; 5, Stewart & Sons. Graded herd: 1, Ness; 2, Hume & Co.; 3, Laurie Bros.; 4, Stewart & Sons. Junior herd: 1 and 2, Ness; 3, Hume & Co.; 4, Laurie Bros.; 5, Stewart & Sons. Breeders' herd: 1, Ness; 2, Hume & Co.; 3, Stewart & Sons; 4, Laurie Bros. Senior and grand champion female: Ness, on Chapmanton Henny. Junior champion female: Ness, on Auchinbray Victoria 8th.

Jerseys.—The number of Jersey entries was on a par with previous years and uniformity of type and quality was superior. Little other than favorable comment could be made on the individuals in all the classes. Seldom is one privileged to see as fine a line-up of cows in milk. The dry cows, heifer calves and bulls were all of much the same type and conformation and pointed to a definite standard being adhered to in breeding and selecting. They were a uniformly fine lot, there being no outstanding winner in any class and no poor individuals. Placings had to be made largely on comparison of points of detail. There was keen competition in all but one class. A total of seventy-two animals were brought out and were placed by E. S. Archibald, of the Experimental Farm, Ottawa.

There was considerable difference in the ages of the three bulls exhibited in the aged class. Bonnie's Perfection, the thickest and deepest animal, with bold masculine appearance, was placed first. Owing to his age, he was not as straight in the lines as the other two, yet he had excellent Jersey conformation for a seven-year-old. Brampton Noble Hero, a younger animal of recognized Jersey type and build with a strong top and good front was second, with his stablemate, Oakland's Noble Eminent, a strong, well-proportioned three-year-old, in third.

Two toppers were out in the yearling class. In fact, little fault could be found with any of the four competitors. Brampton Beauty Heir, a trifle finer-fibred animal, secured the red ribbon, and junior championship. Brampton Cowslip Heir in second place had size and quality.

Eight senior calves made a splendid showing. At the top stood Hazelden Noble Eminent, a straight, deep calf, but leaning to grossness on the shoulder. Below him were typey, high-quality, thrifty youngsters.

The high-water mark of the Jersey exhibit appeared when the aged cows were led into the ring. They were all moulded much after the same pattern and presented an exceptionally good array of udders. Seldom is so uniformly well-fitted a class seen in a show-ring. The evenly-balanced, well-developed udders attracted attention. There were eight cows in the class. Each appeared in about the same stage of lactation and with udders that extended well up behind and forward on the body. There was nothing pendulous about them; the fore quarters were comparatively as well developed as the hind quarters. The bottom of the udders was flat, and fair-sized teats were evenly spaced and well placed. Character and quality was plainly in evidence in each entry. Brampton Oxford Vixen, a cow not quite as forward in flesh as some of the others, but with beautiful form and correct type, stood first. She was a well-balanced cow, carrying an excellent udder and prominent milk veins. Brampton Maitland's B. fitted nicely into second place, with her stablemate, Brampton's Bright Annie, a smooth individual in high fit and carrying a particularly evenly-developed udder, in third. Before the judge finally gave his decision on this class the cows were milked out in order that the quality of the udders could more readily be compared.

In the three-year-old class in milk there were five competitors. Rower's Charm, a cow with capacity and beautiful Jersey form was the winner. She had a wonderful udder fore and aft. Her stablemate, a cow of much the same build and quality, was third, with Fairy Boy's Lady Spanker, carrying an udder patterned after the winner, in second. The three-year-old class not in milk brought our seven beauties, although they were not all in the same form, as some were nearer freshening than others. Brampton Autotone, the winner of the class, was also declared to be grand champion female. She was a straight, deep, thick, symmetrical individual of high quality with an attractive bearing. Her type and conformation might well be kept in mind by those starting in the breed. Her stablemate, Brampton Aleanora, was second. She was a splendid cow, so like the winner that the placings might easily be reversed. In third place stood Brampton Lady Alice, a cow with a shade greater capacity combined with fine quality and an even udder formation.

The two-year-olds barely came up to the standard set by their elders. However, on the whole they were a promising lot. Raleigh's Brightness, scarcely as highly fitted as some others, but with a superior udder formation, was placed first. Brampton Margaret K. 2nd., a more capacious cow, was second, with Hazelden Autotone, a breedy heifer with capacity and constitution, but barely the quality of udder, in third.

The yearlings were not particularly uniform in size, but they showed splendid type and high quality. In another year or two some will undoubtedly develop into toppers. Brampton Bright Irene, a comparatively thick, low-set heifer, showing a great udder, was first of the seniors, and Brampton Golden Lass headed the juniors.

The junior champion female was found among the senior calves, as Brampton Bright Rosebud was the pick of nine. The entire lot were uniform in size and conformation. Six junior calves were brought out with Brampton Princess Agatha as the winner.

Exhibitors.—John Pringle, London; B. H. Bull & Son, Brampton; A. T. Little, London.

Awards.—Aged bulls, (3 in class): 1, Bull & Son, on Bonnie's Perfection; 2 and 3, Pringle, on Brampton Noble Hero and Oakland's Noble Eminent. Bull, two years: 1, Bull & Son, on Brampton Radiator. Bull, one year, (4): 1, 2, 3, and 4: Bull & Son, on Brampton Beauty Heir, Brampton Cowslip's Heir, Brampton Merry Nigger and Brampton Bright Noble. Bull, senior calf, (8): 1, Little, on Hazelden Noble Eminent; 2, 3 and 4, Bull & Son, on Brampton Donald, Brampton Bright Sam and Brampton Cavalier. Bull, junior calf, (4): 1, 2 and 3, Bull & Son, on Brampton Raleigh Star, Brampton Bashful Lad, and Brampton Bright Jimmie. Aged cow, (8): 1, Pringle, on Brampton Oxford Vixen; 2, 3, 4 and 5: Bull & Son, on Brampton Maitland's B., Brampton Bright Annie, Brampton Bashful Beauty, and Brampton Serena. Cow, three-year-old, in milk, (5): 1 and 3, Pringle, on Rower's Charm, and Cowslip's Dairyman; 2 and 4, Bull & Son, on Fairy Boy's Lady Spanker and Brampton Edward Lass. Cow, three years, not in milk, (7): 1 and 2, Little, on Brampton Autotone and Brampton Aleanora; 3, Pringle, on Brampton Lady Alice; 4, Bull & Son, on Brampton Marcia. Heifer, two years, (7): 1, Pringle, on Raleigh's Brightness; 2 and 4, Bull & Son, on Brampton Margaret K. 2nd. and Brampton Bright Cantata; 3, Little, on Hazelden Autotone. Heifer, senior yearling, (5): 1, Pringle, on

Brampton Bright Irene; 2 and 3, Bull & Son, on Brampton Gertrude and Redver's Pet; 4, Little, on Hazelden Pallas Fancy. Heifer, junior yearling, (4): 1, 2 and 4, Bull & Son, on Brampton Golden Lass, Brampton Burma Girl, and Brampton Miss Clarice; 3, Pringle, on You'll Do Bowline. Heifer, senior calf, (9): 1, 2, 3 and 4, Bull & Son, on Brampton Bright Rosebud, Brampton Gipsy Maid, Brampton Silvery Sultana, and Brampton Hop Scotch. Heifer, junior calf, (6): 1, 2 and 3, Bull & Son, on Brampton Princess Agatha, Brampton Viola Wolseley, and Brampton Bright Myra. Three animals, get of one sire; 1 and 2, Bull & Son; 3, Pringle. Two animals, progeny of one cow: 1 and 2, Bull & Son. Graded Herd: 1 and 3, Bull & Son; 2, Pringle. Junior Herd: 1 and 2, Bull & Son; 3, Pringle. Senior and grand champion bull; Bull & Son, on Bonnie's Perfection. Junior champion: Bull & Son, on Brampton Beauty Heir. Senior and grand champion female: Little, on Brampton Autotone. Junior champion female: Bull & Son, on Brampton Bright Rosebud.

Guernseys.—There was only one herd of Guernseys shown. C. Heaslip & Son of Fenwick had twelve entries, mostly females. One yearling bull and one bull calf represented the male sections. Guernseys are not numerous in Canada, but are popular in the United States where the breed reaches toward perfection. They are larger animals than Jerseys and fairly high testers. Some of the animals shown at the National were typical representatives of the breed and the young stuff was strong and growthy.

Fat Cattle.

It is not customary to see a very heavy exhibit of fat cattle at the Canadian National on account of the time of year at which it is held. At the event just closed there were seven different line-ups averaging around four to the class. There were four entries of two export steers and five entries in herd of steers, making fifteen individuals in the latter class. Russell's winning senior yearling steer was the first likely looking one for champion to appear. In the same class Browns, of Galt, were showing a black fellow that was smoother and just as attractive a bullock in many ways. Leask led out his best steer in the junior yearling class. He was smooth and deeply fleshed. He won the class, but not the championship, for the Russell senior yearling was proclaimed champion over all. This winning steer was a straight, good-quality individual and firmly fleshed, yet he showed a slight tendency to roll on the rib and he should have been a little better just in front of the loin. Jas. Smith, Rockland, Ont., made the decisions.

Exhibitors.—T. A. Russell, Downsview; John Brown & Sons, Galt; Jas. Leask & Sons, Seagrave; Pritchard Bros., Elora; Jacob Lerch, Preston.

Awards.—Steer, 2 years: 1 and 2, Russell; 3, Leask. Steer, senior yearling: 1, Russell; 2 and 3, Brown; 4, Leask. Steer, junior yearling: 1, Leask; 2, Russell; 3, Marquis; 4, Pritchard. Steer, senior calf: 1, Leask; 2, Brown; 3, Pritchard. Steer, junior calf: 1, Brown; 2, Lerch; 3, Russell; 4, Leask. Two export steers: 1 and 2, Pritchard; 3, Brown; 4, Russell. Herd, 3 steers, 2 years, 1 year, calf: 1, Russell; 2, Leask; 3, Brown; 4, Pritchard. Champion steer; Russell, on the winning senior yearling.

Sheep.

In spite of the labor and feed problem there were sixteen more sheep at the Canadian National than in 1916, and they were, if anything, more highly fitted. Shepherds fed carefully last summer on account of the intense heat, but the weather has been more favorable during the summer of 1917. Altogether, ten breeds were represented and 502 sheep were included in the exhibit, as against nine breeds last year and 486 sheep. By breeds they ran as follows: Southdowns, 84; Shropshires, 83; Leicesters, 68; Dorsets, 67; Oxfords, 63; Hampshires, 52; Cotswolds, 35; Lincolns, 23; Suffolks, 21; Cheviots, 6. Analyzed still further this represents an increase of 27 Oxfords, 22 Dorsets, 21 Leicesters, and 6 Cheviots, while on the other hand it indicates a decrease of 23 Cotswolds, 21 Shropshires, 5 Hampshires, 5 Suffolks, 4 Southdowns, and 2 Lincolns. Briefly, the exhibit this year showed an increase of 16 and was on the whole better fitted than in 1916. Competition was never keener. The awards were made in the short-wool breeds by H. Noel Gibson, Dundee, Ill.; John Miller, Jr., Ashburn, judged the Oxfords; W. A. Douglas, Caledonia, the Leicesters; J. V. Snell, Norval, the Cotswolds, while L. Parkinson, of Guelph, placed the Lincolns.

In the awards which follow the lamb pens were made up of one ram lamb and three ewe lambs, bred by exhibitor. The open pens included one ram, two ewes, one-year-old and under three, and two ewe lambs. The Canadian-bred pens were as the name implies, Canadian-bred, as well as bred and owned by exhibitor. In some breeds a section was made for an extra pen of lambs, in which case they must be the get of one ram.

Cotswolds.—Only two exhibitors were forward with Cotswolds, these being Norman Park, Norwich, and G. H. Mark & Son, Little Britain. Park was most successful in the ram classes, but in the ewes and pens the ribbons were more evenly divided.

Awards.—Ram, aged: 1 and 3, Park; 2 and 4, Mark. Ram, shearing: 1, 2 and 3, Park; 4, Mark. Ram lamb: 1 and 2, Park; 3 and 4, Mark. Ewe, aged: 1 and 2, Mark; 3 and 4, Park. Ewe, shearing: 1 and 3, Mark; 2 and 4, Park. Ewe lamb: 1 and 3, Park; 2 and 4, Mark. Champion ram: Park. Champion ewe: Mark. Pen of lambs: 1, Park; 2, Mark. Open pen: 1, Park; 2, Mark. Pen, Canadian-bred: 1, Mark; 2, Park. Wether: 1 and 2, Mark. Pen of four lambs, get of one ram: 1, Park; 2, Mark.

Leicesters.—The exhibitors in Leicesters were John2

Packham & Sons, Caistor Centre; A. & W. Whitelaw, Guelph; John Kelly & Son, Shakespeare; Wm. Clarkson, Weston, and Jas. Snell & Sons, Clinton. Competition was keen and a fairly wide distribution of the ribbons was made. Whitelaw, however, had the two champions, both shearlings, the ewe being a particularly outstanding one.

Awards.—Ram, aged: 1, Snell & Sons; 2, Whitelaw; 3, Kelly & Son; 4, Packham & Sons. Ram, shearing: 1 and 3, Whitelaw; 2 and 4, Kelly & Son. Ram lamb: 1, Snell & Sons; 2 and 4, Packham & Sons; 3, Whitelaw. Ewe, aged: 1, Kelly & Son; 2 and 3, Whitelaw; 4, Snell & Sons. Ewe, shearing: 1 and 3, Whitelaw; 2, Kelly & Son; 4, Snell & Sons. Ewe lamb: 1, Snell & Sons; 2, Packham & Sons; 3 and 4, Whitelaw. Champion ram and ewe: Whitelaw, on the shearing in both male and female. Pen of lambs: 1, Snell & Sons; 2, Packham & Sons; 3, Whitelaw. Open pen: 1, Whitelaw; 2, Snell & Sons; 3, Packham & Sons. Pen, Canadian-bred: 1, Whitelaw; 2, Kelly & Son; 3, Snell & Sons. Wether: 1 and 2, Kelly & Son; 3, Whitelaw.

Lincolns.—Herb. Lee, of Highgate, was confronted with no competition in the Lincoln classes. His stock is well known to be good, but that should not discourage other breeders from coming out against him at Toronto. Competition here, as in the other breeds, would tend to create a greater interest, and Mr. Lee, we know, would welcome a struggle for his share of the honors in order to enhance the interest now taken in the Lincolns. In 1916 and 1917 there has been no competition. Let us hope that in 1918 this long-wool breed will rival the others in numbers.

Shropshires.—The Shropshires were not so strong numerically as in 1916, but it was an outstanding exhibit of sheep. The shearing ewes particularly attracted notice for there were an even dozen in the line-up and all were in splendid fit. A dark horse in the person of Geo. D. Bretzner, Copetown, led out some good sheep and received a very encouraging number of red and blue ribbons. Shields' first-prize aged ram was champion, and Gurney, of Paris, was equally successful with his aged ewe.

Exhibitors.—J. W. Springstead, Caistor Centre; John D. Larkin, Queenston; John R. Kelsey, Woodville; A. Shields & Sons, Canfield; Geo. D. Bretzner, Copetown; F. W. Gurney, Paris.

Awards.—Ram, aged: 1, Shields; 2, Kelsey; 3, Springstead; 4, Larkin. Ram, shearing: 1, Bretzner; 2, Larkin; 3 and 4, Kelsey. Ram lamb: 1 and 4, Bretzner; 2, Kelsey; 3, Larkin. Ewe, aged: 1, Gurney; 2, Shields; 3, Larkin; 4, Kelsey. Ewe, shearing: 1, Kelsey; 2, Gurney; 3, Bretzner; 4, Larkin. Ewe lamb: 1, Bretzner; 2, Kelsey; 3 and 4, Larkin. Champion ram: Shields, on aged ram. Champion ewe: Gurney, on aged ewe. Pen of lambs: 1, Bretzner; 2, Kelsey; 3, Larkin. Open pen: 1, Kelsey; 2, Bretzner; 3, Larkin. Pen, Canadian-bred: 1, Kelsey; 2, Shields. Wether: 1, Kelsey; 2, W. E. Wright & Son, Glanworth.

Oxfords.—The Oxford was one of the strong breeds of the exhibit, showing from seven to nine in the best classes. The battle was chiefly between Peter Arkell & Sons, and E. Barbour & Son. The former were superior in the aged and shearing classes, while Barbour won with the lambs. Arkell had both champions.

Exhibitors.—A. A. Armstrong, Fergus; E. Barbour & Son, Hillsburg; Peter Arkell & Sons, Teeswater, Hampton Bros., Fergus.

Awards.—Ram, aged: 1, 2 and 3: Arkell & Sons; 4, Barbour. Ram, shearing: 1 and 2, Arkell & Sons; 3 and 4, Barbour. Ram lamb: 1 and 3, Barbour; 2 and 4, Arkell & Sons. Ewe, aged: 1 and 2, Arkell & Sons; 3 and 4, Barbour. Ewe, shearing: 1, 2 and 4, Arkell & Sons; 3, Barbour. Ewe lamb: 1 and 2, Barbour; 3 and 4, Arkell & Sons. Champion ram and ewe: Arkell & Sons, on the aged sheep in both cases. Pen of lambs: 1, Barbour; 2, Arkell & Sons; 3, Armstrong. Open pen: 1 and 3, Arkell & Sons; 2, Barbour. Pen, Canadian-bred: 1 and 3, Arkell & Sons; 2, Barbour. Wether: 1, Barbour; 2, Arkell & Sons. Pen of four lambs, either sex: 1, Barbour; 2, Arkell & Sons.

Southdowns.—The Southdowns outnumbered all other breeds, being superior to the Shropshire in this respect by one. The competition has never been keener, nor the quality of any higher order. The shearing-ewe class numbered fourteen and the ewe lambs ten. McEwen and Hampton Bros. were most successful, while Springstead captured a red ribbon in the shearing-ram class. Larkin showed some good sheep and made the battle a close one throughout. McEwen's aged ram and shearing ewe were selected as champions.

Exhibitors.—J. W. Springstead & Sons, Caistor Centre; John D. Larkin, Queenston; Hampton Bros., Fergus; Robt. McEwen, London.

Awards.—Aged ram: 1, McEwen; 2, 3 and 4, Larkin. Ram, shearing: 1, Springstead; 2 and 3, McEwen; 4, Larkin. Ram lamb: 1 and 2, McEwen; 3, Hampton Bros.; 4, Larkin. Ewe, aged: 1, Hampton Bros.; 2 and 4, McEwen; 3, Larkin. Ewe, shearing: 1, 2 and 4, McEwen; 3, Larkin. Ewe lamb: 1 and 2, Hampton Bros.; 3 and 4, McEwen. Champion ram and ewe: McEwen, on the aged ram and shearing ewe. Pen of lambs: 1, Hampton Bros.; 2, McEwen; 3, Larkin. Open pen: 1, McEwen; 2, Hampton Bros.; 3, Larkin. Pen, Canadian-bred: 1, McEwen; 2, Springstead; 3, Larkin. Wether: 1, Larkin; 2, Springstead.

Dorsets.—The majority of the red and blue ribbons in the Dorset classes were divided between Jas. Robertson & Sons, Hornby, and Cecil Stobbs, Leamington. Each had a champion among their first-prize winners. Other exhibitors were W. E. Wright & Son, Glanworth, and John A. Orchard, Shedden.

Awards.—Ram, aged: 1, Stobbs; 2, Wright; 3, Robertson; 4, Orchard. Ram, shearing: 1, Robertson; 2 and 3, Stobbs; 4, Orchard. Ram lamb: 1, Robertson;

Whitelaw, n. Clarkson. Competition the ribbons two cham- cularly out.

Whitelaw, shearing: Ram lamb; Whitelaw; 4, Snell; 2, Kelly; 1 & Sons; 2, Champion ram; h male and Packham; ; 2, Snell & an-bred: 1. s. Wether: 1.

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or Centre; Woodville; zner, Cope-

Kelsey; 3, Bretzner; and 4, Bretz- Gurney; 2, shearing: 1, Ewe lamb; Champion re: Gurney, Kelsey; 3, Larkin. Wether: 1.

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& Sons; 4, ell & Sons; Barbour; 2, Arkell & 1, 2 and 4, 2, Barbour; n and ewe: cases. Pen Armstrong- bour. Pen, 2, Barbour. Pen of four sons.

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blue ribbons Jas. Robert- Leamington. ize winners. Glanworth,

Wright; 3, Robertson; Robertson;

2, Stobbs; 3, Orchard; 4, Wright. Ewe, aged: 1 and 3, Stobbs; 2, Robertson; 4, Wright. Ewe, shearing: 1 and 2, Robertson; 3, Wright; 4, Stobbs. Ewe lamb: 1 and 3, Robertson; 2, Stobbs; 4, Wright. Champion ram: Robertson, on the lamb. Champion ewe: Stobbs, on the aged ewe. Pen of lambs: 1, Robertson; 2, Stobbs; 3, Wright. Open pen: 1, Stobbs; 2, Robertson; 3, Wright. Pen, Canadian-bred: 1, Robertson; 2, Wright; 3, Stobbs. Wether: 1, Wright; 2, Stobbs.

Hampshire Downs.—The Hampshires entered by John Kelly & Son, Shakespeare, captured a heavy percentage of the red ribbons in the classes for this breed. A. S. Wilson, Milton, and Telfer Bros., Paris, brought out sheep that made the competition keen.

Awards.—Ram, aged: 1, Telfer Bros.; 2, Wilson. Ram, shearing: 1, Kelly; 2, Telfer Bros.; 3 and 4, Wilson. Ram lamb: 1, 3 and 4, Kelly; 2, Telfer Bros. Ewe, aged: 1 and 2, Kelly; 3 and 4, Wilson. Ewe, shearing: 1 and 3, Kelly; 2 and 4, Wilson. Ewe lamb: 1 and 2, Kelly; 3 and 4, Telfer Bros. Champion ram and ewe: Kelly, on the shearing in both cases. Pen of lambs: 1, Kelly; 2, Telfer Bros.; 3, Wilson. Open pen: 1, Kelly; 2, Telfer Bros.; 3, Wilson. Pen, Canadian-bred: 1, Kelly; 2, Wilson; 3, Telfer Bros. Wether: 1 and 2, Kelly.

Suffolks.—Hampton Bros., Fergus, and James Bowman, Guelph, had a duel in Suffolk classes, with the odds in favor of the former.

Awards.—Ram, aged: 1, Bowman. Ram, shearing: 1, Hampton Bros.; 2 and 3, Bowman. Ram lamb: 1, Hampton Bros.; 2 and 3, Bowman. Ewe, aged: 1, Hampton Bros.; 2 and 3, Bowman. Ewe, shearing: 1, Hampton Bros.; 2 and 3, Bowman. Ewe lamb: 1, Hampton Bros.; 2 and 3, Bowman. Champion ram: Bowman, on the aged ram. Champion ewe: Hampton Bros. Pen of lambs: 1, Bowman. Open pen: 1, Hampton Bros.; 2, Bowman. Pen, Canadian-bred: Bowman.

Cheviots.—This rather uncommon breed of sheep in this country was represented by six entries brought forward by Cecil Stobbs, Leamington.

Swine.

While the swine exhibit was a good one it was in no way a credit to the Canadian National or the swine industry of this country. There were too many empty pens and too few new exhibitors coming out. The unprecedented demand for breeding stock, the need for and high price of bacon, the scarcity of feed and the shortage of labor are sufficient reasons why an improvement was not expected this year; but when conditions get back to normal, attention should be directed to this branch of the live stock exhibit and a greater effort made to brighten up that particular corner.

Berkshires.—Three exhibitors were found in this breed, namely: John D. Larkin, Queenston, P.W. Boynton & Sons, Dollar, and Adam Thomson, Stratford. The awards made by Prof. Geo. E. Day, Guelph, will indicate the success of each one.

Awards.—Boar, 2 years and over; 1, Larkin (Champion); 2, Thomson; 3, Larkin. Boar, 18 months and under 24: 1, Larkin; 2, Boynton; 3, Thomson. Boar, over 12 months and under 17: 1, Thomson; 2, Boynton. Boar, over 6 and under 12 months: 1, Thomson; 2, Larkin; 3, Boynton. Boar, under 6 months: 1, 2, 3 and 4, Larkin. Sow, 2 years and over; 1, Thomson (Champion); 2, Boynton; 3, Thomson; 4, Larkin. Sow, over 18 months and under 24: 1, Thomson 2, Boynton; 3, Larkin. Sow over 12 months and under 18: 1 and 3, Thomson; 2, Boynton; 4, Larkin. Sow over 6 months: 1, 2, 3 and 4, Thomson. Herd: 1 and 3, Thomson; 2, Boynton; 4, Larkin. Litter: 1 and 2, Thomson; 3 and 4, Larkin.

Yorkshires.—John Duck, Port Credit; J. K. Featherston, Streetsville; Jacob Lerch, Preston and J. E. Brethour & Nephews, Burford; were the exhibitors in the Yorkshire classes. The greater part of the prize money went to Brethour and Duck. D. C. Flatt, Hamilton, made the awards.

Awards.—Boar, 2 years and over: 1 and 4, Duck; 2, Lerch; 3, Featherston. Boar, over 18 and under 24 months: 1, Brethour (Champion); 2, Featherston; 3 and 4, Duck. Boar, over 12 and under 18 months: 1, Featherston; 2 and 4, Duck; 3, Brethour. Boar, over 6 and under 12 months: 1, Duck; 2, Featherston; 3 and 4, Brethour. Boar under 6 months: 1, 2 and 3, Brethour; 4, Duck. Sow, 2 years and over: 1, Duck (Champion); 2 and 4, Featherston; 3, Duck. Sow, over 18 and under 24 months: 1 and 2, Duck; 3 and 4, Featherston. Sow over 12 and under 18 months: 1, Brethour; 2 and 3, Duck; 4, Featherston. Sow, over 6 and under 12 months: 1, 3 and 4, Brethour; 2, Duck. Sow, under 6 months: 1, 2, 3 and 4, Brethour. Herd: 1 and 4, Duck; 2, Brethour; 3, Featherston. Litter: 1 and 3, Brethour; 2, Duck; 4, Lerch.

Tamworths.—D. Douglas & Sons, Mitchell, carried off the lion's share of the ribbons allotted to the Tamworths. Charlie Boynton, Dollar, had the first-prize boar over 1 and under 2 years, as well as the second-prize boar over 6 and under 12 months. J. J. Pearson, Dixie, secured second prize on aged boar, and fourth prize on sow under 6 months. In all other cases the prizes and championships went to Douglas. Herb. German, St. George, placed the ribbons.

Chester Whites.—In the Chester White exhibit Wm. Roberts & Sons, Peterborough, were most successful. Against them were showing D. De Coursey, Mitchell and W. E. Wright & Sons, Glanworth. D. C. Flatt and Prof. Day were the judges.

Awards.—Boar, 2 years and over: 1 and 3, Roberts; 2, Wright; 4, De Coursey. Boar, over 1 and under 2 years: 1, Roberts; 2 and 3, De Coursey; 4, Wright. Boar, over 6 and under 12 months: 1, Roberts (Champion); 2, Roberts; 3, De Coursey; 4, Wright. Boar, under 6 months: 1 and 2, Wright; 3, Roberts; 4,

De Coursey. Sow, 2 years and over: 1, Roberts (Champion); 2, Wright; 3, De Coursey; 4, Roberts. Sow, over 1 and under 2 years: 1, De Coursey; 2, Wright; 3 and 4, Roberts. Sow over 6 and under 12 months: 1 and 2, Roberts; 3, De Coursey; 4, Wright. Sow, under 6 months: 1 and 2, Wright; 3, De Coursey; 4, Roberts. Herd: 1, Roberts; 2 and 3, Wright; 4, De Coursey. Litter: 1 and 2, Wright; 3, Roberts.

Duroc-Jerseys and Poland Chinas.—These two breeds usually compete together at the Canadian National and often at other fairs. If the authorities in whom is vested the destiny of the various breeds, desire to see them encouraged why not give each a separate class? Such a system as now exists permits them to live but offers no assistance. If they are granted separate classes and one breed does not come forward in sufficient numbers to warrant its maintenance on the prize list, cut out that class. If both breeds fail to respond cut out both classes. Such a system appears more consistent than the present one. The list of exhibitors in these two breeds included Culbert Malott, Wheatley; Malott & Stobbs, Leamington; and Geo. G. Gould, Essex. William Jones, Mt. Elgin, made the awards. The champions in both cases were Durocs.

Awards.—Boar, 2 years and over: 1, Malott (Champion); 2, Malott & Stobbs; 3, Gould. Boar, over 1 and under 2 years: 1, Malott; 2, Malott & Stobbs; 3, Gould. Boar, over 6 and under 12 months: 1, Gould; 2, Malott & Stobbs; 3, Malott. Boar, under 6 months: 1, Malott; 2, Gould; 3, Malott & Stobbs. Sow, 2 years and over: 1, Malott (Champion); 2, Malott; 3, Malott & Stobbs. Sow, over 1 and under 2 years: 1 and 2, Malott; 3, Malott & Stobbs. Sow, over 6 and under 12 months: 1 and 3, Malott & Stobbs; 2, Malott. Sow, under 6 months: 1, Gould; 2, Malott; 3, Malott & Stobbs. Herd: 1, Malott; 2, Malott & Stobbs; 3, Gould.

Export Bacon Hogs.—Featherston's best pen of bacon hogs gave the promise of hanging up as good a carcass as any in the class. They were not, however, quite so smooth and uniform as some of the other entries. The decisions were based largely on smoothness, type and uniformity. Brethour got the first and second prizes, John Duck was third, and Featherston fourth and fifth. The winning pens were all Yorkshires. A tribunal of judges made the awards.

Cheese and Butter Exhibit.

Five provinces were represented in the exhibit of dairy products, and the honors were fairly well distributed. Ontario cheesemakers usually come to the front but butter makers have been forced to give way to the other provinces in the past years. This has always been a thorn in the flesh of Ontario dairymen. This year Ontario butter made a more favorable showing, which goes to prove that first quality butter can be made in the old province. The Western Provinces and Quebec may expect more strenuous competition in the future as Ontario buttermakers have no intention of staying in the rear. Ontario has been a little backward in adopting the grading of cream and butter, but she will catch up to her more aggressive sisters. There were 180 exhibits of butter, which was higher than in the past and the quality on the whole was "Extra". The section for June butter was filled and scored high.

The cheese awards largely went to Ontario makers. The score for all but August make was on a par with previous exhibits. Unfavorable weather conditions were responsible for August cheese scoring slightly below normal. There were 289 entries. The scoring was done by Wm. Gray, Stratford, Jas. Bristow, St. Thomas and Wm. Morton, Belleville. Butter was scored by J. B. Muir, Ingersoll, Mr. La Claire, St. Hyacinthe, Que., and Mr. Thacker, Montreal.

Cheese Awards.—June colored (28 entries): 1, W.T. Oliver, Atwood, Ont., 95.15; 2, E. E. Chaffee, Cornwall, Ont., 95.00; 3, A. J. Cameron, Cornwall, Ont., and D. A. McDonald, Summerside, 94.99; 5, H. Hammond, Moorefield, 94.98; 6, Geo. Empey, Atwood, Ont., 94.83, (on flavor); T. W. Morse, Stratford, 94.83; 8, L. Lavoie, Rimouski, Que., 94.66. July colored, (25 entries): 1, H. Hammond, 95.83; 2, Geo. Empey, 95.81; 3, T. W. Oliver, 95.66; 4, W. Morse, 95.33; 5, L. Lavoie, 95.16; 6, H. J. Neeb, Tavistock, Ont., 94.66; 7, P. Palleon, Calgary, Alta., 94.99; 8, Woodland Dairy, Edmonton, Alta., 94.33. June white, (54 entries): 1, T. Bergeron, Methot Mills, Que., 96.50; 2, Geo. Empey, 96.49 (on flavor); 3, H. Hammond, 96.49; 4, C. J. Donnelly, Lambeth, Ont., 96.33; 5, W. T. Oliver, 95.99; 6, E. Laflamme, South Durham, Que., 95.83; 7, E. E. Chaffee, 95.66; 8, A. Lavoie, Metabetchon, Que., 95.49. July, white, (52 entries): 1, W. Morse, 97.82; 2, W. T. Oliver, 96.16; 3, J. E. Koch, Palmerston, 95.83; 4 and 5, H. Hammond, H. J. Neeb, 95.66; 6, E. P. Houde, Ste. Anne De La Puade, Que., 95.49 (won on flavor); 7, B. F. Howes, West Monkton, Ont., 95.49; 8, Z. Bergeron, 95.49. August colored, (23 entries): 1, H. Hammond, 95.65; 2, W. T. Oliver, 95.16; 3, P. Palleon, 95.00; 4, H. J. Neeb, 94.98; 5, W. Morse, 94.82; 6, Woodland Dairy, 94.65; 7, J. W. Robinson, Stratford, Ontario, 94.48, 8, J. P. Cox, Greenlay, Ont., 94.16. August, white, (52 entries): 1, W. T. Oliver, 96.99; 2, E. Laflamme, 96.65; 3, W. Morse, 96.32; 4, H. J. Neeb, 95.66; 5, H. Hammond, 95.66; 6, F. Labbe St. Bruno Lac St. Jean, 95.33; 7, J. P. Cox, 95.32; 8, L. H. Schneider, Gad's Hill, Ont., 94.99. Canadian Stilton, (21 entries): 1, H. Hammond, 95.99; 2, P. Palleon, 94.82; 3, W. T. Oliver, 94.66; 4, Geo. Empey, 94.16; 5, Connolly Bros., Thamesford, 93.82. Canadian Flats, (34 entries): 1, H. Hammond, 95.83; 2, H. J. Neeb, 95.66; 3, W. Morse, 95.16; 4, Woodland Dairy, 94.83; 5, J. W. Robinson, 94.66. Silver cup to exhibitor making highest score W. Mrse. Specials to exhibitors making highest average score in Cheddar

cheese, 1, W. T. Oliver; 2, W. Morse; 3, H. Hammond.

Butter.—Creamery, solids, salted, (50 entries): 1, J. R. Almont, Silverdale, Ont., 97.66; 2, L. Castonguay, St. Edouard, Que., 96.82; 3, G. Cote, St. Vallia, Que., 96.50; 4, E. Fauche, St. Flavieu, Que., 96.49; 5, M. Weir, Winnipeg, Man., 96.49; 6, E. Caissy, Maria, Que., 96.32; 7, Jos. Dansereau, St. Hyacinthe, Que., 96.16; 8, L. Archambault, Vercheres, Que., 95.98. Creamery solids, unsalted, (35 entries): 1, F. Vaillancourt, Bonaventure, Que., 97.32; 2, E. Fauche, 97.00; 3, Geo. H. Carter, Moosomin, Sask., 96.99; 4, J. A. Allane, St. Roch, Que., 96.83; 5, C. Lemay, Ste. Henedine, Que., 96.83; 6, R. A. Dennis, Strathroy, Ont., 96.50; 7, Edmonton City Dairy, 96.49; 8, Bowes Co., Ltd., Toronto, Ont., 96.33. Creamery, solids, June make, (34 entries): 1, A. Pelletier, St. Georges, E. Que., 95.66; 2, J. R. Almont, 94.49; 3, L. Castonguay, 94.49; 4, A. Fournier, Gentilly, Que., 94.16; 5, E. Fauche, 94.15; 6, I. C. Goodhand, Parkhill, Ont., 94.15; 7, L. Marshall, Port Dover, Ont., 93.99; 8, C. Lemay, 93.98. Creamery pound prints, (34 entries): 1, W. Hansen, Innisfail, Alta., 96.13; 2, Carlyle Dairy, Calgary, Alta., 95.99; 3, Geo. Neilson, Red Deer, Alta., 95.99; 4, W. B. Medd, Woodham, 95.99; 5, M. Weir, 95.83; 6, P. Palleon, 95.82; 7, J. A. Allane, 95.82; 8, J. R. Almont, 95.33. Farm Dairy 30-lb. tubs, (6 entries): 1, Ruth Patton, Richmond Hill, Ont., 92.92; 2, Wm. Clarkson, Weston, Ont., 92.49; 3, Mrs. A. Wallace, North Gower, Ont., 92.49; 4, Mrs. Chas. McMillan, Hillsburg, Ont., 90.32; 5, J. E. Terrill, Lindsay, Ont., 89.98. Farm Dairy 20-lb. tub, (11 entries): 1, S. H. Pugh, Milverton, Ont., 91.98; 2, Mrs. Fenwick, Brampton, Ont., 91.16; 3, Mrs. J. E. Terrill, 90.49; 4, Mrs. A. Wallace, 90.48; 5, Ruth Patton, 90.32. Farm Dairy pound prints, (10 entries): 1, Mrs. Jos. Britton, Uxbridge, Ont., 92.99; 2, Mrs. A. Wallace, 92.48; 3, Mrs. F. Fenwick, 91.99; 4, Mrs. Armstrong, Brussels, Ont., 90.82; 5, Wm. Clarkson, 90.32. Challenge Trophy awarded to the maker of highest scoring creamery butter, J. R. Almont. This trophy becomes the permanent property of Mr. Almont, he having won it three times.

Specials.—1, L. Castonguay, 96.57; 2, M. Weir, 96.16; 3, J. R. Almont, 95.88.

Grain, Sheaves And Vegetables; Field Crop Competition.

The exhibits of grain and sheaves from the Standing Field Crop Competitions of the Agricultural Societies of Ontario in the Government Building at the Canadian National Exhibition, Toronto, were the best of the many fine displays held since their inception a few years ago. The exhibit occupied one side of the centre of the building, and on the opposite side was the splendid exhibit of vegetables from the Field Crop Competitions conducted by the branches of the Ontario Vegetable Growers' Associations. Both these exhibits were in charge of J. Lockie Wilson, Superintendent of Agricultural and Horticultural Societies. Awards:

SHEAVES.

Oats.—Division 1: 1, H. L. Goltz, Bardville; 2, Fletcher Walker, Royston; 3, L. D. Riley, Milford Bay; 4, B. Laycock, Gravenhurst. Division 2: 1, C. H. Ketcheson, Belleville, R. R. 2; 2, M. Boyd Co., Bobcaygeon; 3, Garfield Kennedy, Bobcaygeon; 4, P. S. McLaren, Perth, R. R. 2. Division 3: 1, S. W. Bingham & Son, Hillsburg, R. R. 2; 2, P. J. Beal, Ridgeville, R. R. 1; 3, Geo. Erwin, Simcoe, R. R. 4; 4, Estate of late Jno. McDonald, Bradford, R. R. 1.

Spring Wheat.—Division 2: 1, Walter Galbraith, Renfrew, R. R. 3; 2, Peter Wilson, Cobden, R. R. 3; 3, A. Johnston, Cobden, R. R. 4; 4, Sam McLaren, Cobden. Division 3: 1, Jno. Young & Son, Hagerman.

Fall Wheat.—Division 2: 1, D. Hetherington, Bobcaygeon; 2, H. R. Seymour, Bobcaygeon; 3, Arch. Campbell, Bobcaygeon. Division 3: 1, Wm. Johnston, Galt, R. R. 7; 2, I. Hilborn, New Dundee, R. R. 1.

Barley.—Division 2: 1, C. H. Ketcheson, Belleville, R. R. 2; 2, H. J. Gay, Frankford. Division 3: 1, E. Readhead, Milton, R. R. 2; 2, Jas. McDowell, Hornby.

GRAIN.

Oats.—Division 1: 1, H. L. Goltz. Division 2: 1, Thos. Sellers, Zephyr; 2, G. W. Keyes, Wolfe Island, R. R. 2; 3, P. S. McLaren; 4, E. C. Abbott, Frankford, R. R. 3. Division 3: 1, Geo. Erwin; 2, Leslie Kerns, Freeman, R. R. 2; 3, Robt. Wilson, Jarvis, R. R. 1; 4, W. H. Mason, Waterford.

Fall Wheat.—Division 2: 1, D. Hetherington. Division 3: 3, Wm. Johnston; 4, Alex. Hall, Ayr, R. R. 3. **Barley.**—Division 3: 4, Jas. McDowell.

VEGETABLES.

Potatoes: 1, T. K. Aymer, Humber Bay; 2, W. Trott, London; 3, W. J. Downing, Trenton, R. R. 2; 4, R. Benstead, Strathroy; 5, G. W. Bycroft, London, R. R. 7; 6, J. Danridge, Humber Bay; 7, C. Plunkett, Weston, R. R. 2.

Tomatoes: 1, C. Aymer, Humber Bay; 2, T. Aymer; 3, F. F. Reeves, Humber Bay; 4, Jno. McMullen, Cumming's Bridge; 5, Wm. Trick, Ottawa; 6, J. Harris & Son, Belleville; 7, G. W. Bycroft.

Onions: 1, C. Aymer; 2, F. F. Reeves; 3, Tizzard Bros., Humber Bay; 4, T. Mulligan, Harbord, Ottawa; 5, Jas. Danridge, Humber Bay; 6, Wm. Trick; 7, Geo. Bridges, Sarnia, R. R. 1.

Celery: 1, J. J. Davis, London, R. R. 7; 2, C. E. Post, Brighton, R. R. 4; 3, J. Harris & Son, Belleville; 4, A. Bell, Humber Bay; 5, R. Sanderson, London, R. R. 7; 6, Art. Carlton, Lambton Mills; 7, C. J. Leaman, Todmorden.

The Great Eastern Exhibition— Sherbrooke.

The weatherman in a decidedly unsettled state of mind frequently giving vent to his overflowing tendencies of 1917 in the Eastern Townships district, did not apparently put fear in the mind of the public. Wednesday, the only respectable day of the entire week, saw the city of Sherbrooke, Que., and exhibition grounds thronged with people. The exhibits in most cases were decidedly creditable, especially was that true of dairy cattle, sheep, and some of the horse classes. The race track acting in a dual-purpose capacity, as it does, accommodates, each afternoon, a very important feature of the show, the live-stock parade.

The following names appeared on the list of judges: Adam Scarfe, Cumming's Bridge, Ont., and Mr. Tisdale, Beaverton, Ont., on heavy horses; L. D. Herrick, Brattleboro, Vt., Mr. Gilmore, St. Albans, Vt., and Dr. Watson, Hudson Heights, Que., on light horses; F. Mallory, Frankford, Ont., on Holsteins; A. Cains, Byron, Ont., on Ayrshires; Prof. Barton, Macdonald College, on Jerseys, Guernseys and Brown Swis; Mr. Thouin, Three Rivers, on French-Canadians; W. G. Johnstone, Stanstead, on beef cattle and grades; A. A. MacMillan, Macdonald College, on Sheep; and G. Rothwell, Ottawa, on swine.

The exhibitors of light horses put up a strong showing in the harness classes. Miss Viau, of Montreal, was exhibiting as usual in the high steppers, also Mr. Jamieson, of Lennoxville. Mrs. Jamieson made a beautiful display in the many pony classes. The roadster classes, both singles and doubles, were well filled, and the judges who had previously acted in Sherbrooke considered them unusually strong.

HEAVY HORSES.

Clydesdales.—The veteran exhibitors who turned out this year were W. Nussey and R. Ness & Son, Howick; S. McGerrigle, Ormstown; The Brompton Pulp & Paper Co., East Angus; Mr. Haslet, of Richmond; and R. T. Brownlee, of Hemmingford, Que.

In the imported section, Royal Cup by Silver Cup, owned by the Lennoxville Syndicate, won first; Ness & Son were second on Baron Stanley by Baron's Pride, and Haslet, of Richmond, won third money. The Brompton Pulp and Paper Co. won the three-year-old class, and Brownlee was second. Brownlee won the two-year-old class, and Ingram was second. In the three-year-old mare class Ness & Son were alone with Woodside Lady. The Pulp & Paper Co. won in two-year-olds; McGerrigle, second, and Nussey third. Ness won the yearling filly class, and J. Logan, Howick, was second. McGerrigle won mare and foal and also the Clydesdale Association money for imported mares, while Royal Cup and Baron Stanley stood first and second respectively for their owners for imported horses.

The Canadian-bred aged class brought out some champion animals, Ness & Son were first with Spencer of the Briers by Sir Spencer; Nussey was second on Baron Sillith's Heir by Baron Sillith. The Pulp and Paper Co. were third with a big, strong horse. Ness & Son won the two-year-old, and Nussey the yearling class.

In the mare classes both three-year-old and two-year-old Nussey were first and Ness second, while McGerrigle won the yearling class. Nussey won the mare and foal class.

The Clydesdale Association money for best Canadian-bred stallion was won by Ness & Son, and Nussey lifted the female money.

In the teams and singles Ness stood first, and McGerrigle second in both instances. Royal Cup won the gold medal for best stallion, and Ruby Jen won the gold medal for the best mare. Ness & Son won the cup for the best string of ten animals.

Percherons.—The exhibitors were Milton Porter, Simcoe, Ont.; J. E. Arnold, Grenville, Que.; Mr. Smiley, Lennoxville, Que.; Chas. Lefebvre, Birtchton, Que.; E. J. Campbell, Cookshire, Que.; and Mr. Haslet, of Richmond.

Porter was first in the aged horses and afterwards champion on Kodi. Haslet was second and Arnold was third and fourth. Porter won the three-year-olds with Peter King, and Lefebvre was second. Porter was first in two-year-olds, Campbell second, and Smiley third. The Simcoe stables also won the yearling class and Arnold was second. In mares Arnold won all the firsts as Porter did in horses. Arnold's aged mare, Rosaline, was first and Mr. Smiley's mare was second. Arnold won the two-year-old class and afterwards female championship with Margaret Idlefonse. Lefebvre won second place in the class.

BEEF CATTLE.

The beef cattle classes were hardly as well filled as in former years. The absence of the white-faced breed and the fact that no exhibitor seemed to fill the place that F. Cromwell's herd of Shorthorns did, made it appear as though there was a gap in the ranks of the aristocrats. George R. Mooney, of Inverness, made a fine display for a young breeder, securing both the young and aged herd prizes, also the male grand championship on White Gloster, his aged bull, and the female grand championship on his aged cow, Spicy Girl. The following breeders gave Mooney keen competition in many of the individual classes however. Guy Bislop, Marlboro; John Adams, Cookshire; W. G. Loomis, Cookshire; Alex. McKay, Smith Mills; and Jas. Woodward, Lennoxville. McKay and Woodward showed some fine animals in the milking classes, for which the Sherbrooke Association makes special provision. A. C. Spafford, of Compton, and H. E. Hodgeman, of Birtchton, Que., were the only exhibitors in Aberdeen-Angus. The former breeder won the majority of the prizes.

DAIRY CATTLE.

In Ayrshires and Holsteins there was keen competition and all the classes were especially well filled, that is even more true of the Ayrshires than the Holsteins, the former slightly outnumbering the latter, and the interest did not drop in a single class. Several of the local breeders deserve special mention for the improvement in numbers, quality and show fit so evident in not only the Holstein and Ayrshire but also the Jersey and French-Canadian sections. The dairy cattle exhibit with the local men is becoming stronger each year.

The contributors to the Holstein exhibit were P. W. Faber, East Farnham, Que.; Harding Bros., Welsford, N.B.; J. Alexander, St. Louis, Que.; L. Hebert, Marlboro, Que.; J. Clement, St. Esprit, Montcalm; Marshall Miller, Brome Centre; W. J. Arbery, Genieve, Que.; J. Parnell, Lennoxville, and A. C. Page, Sherbrooke.

The aged-bull class brought out the grand champion male, Sir Faforit Schuiling, owned by Harding Bros., who were also second; Faber won third on Blizz and Sir Posch, and Alexander fourth on Khg Segis Ruby Walker. Harding Bros. won the two-year-old bull section with Percilla Sir Posch; A. C. Page was second. A big, strong yearling bull belonging to Arbery came out and won the class and afterwards was made junior male champion. Parnell was second, Hebert was third. Both the senior and junior bull calf winners were shown by Harding Bros.

The winning aged cow, Clothilda Johanna De Kol, later became the grand champion female, belonged to Faber, he also won third and fourth on Lyons Beauty Clothilda and Forest Inferno. Harding Bros. were second on Faforit 7th Beauty. Alexander's Howick Pauline won the three-year-old class, Hebert was second, Faber third and Clement fourth. Harding Bros. won the younger female classes and junior female championship on their yearling heifer Miss Mercena Schuiling. Young herds: 1, Harding Bros.; 2, Alexander; 3, Clement. Aged herds: 1, Faber with a uniform bunch of females. Harding Bros. were second with perhaps more first-prize animals in their herd than Faber, but their females were practically all dry and of different ages, so naturally did not show to as good advantage. Alexander was third and Clement fourth.

The Ayrshire exhibitors were D. T. Ness, Howick; W. H. Kay, Phillipsburg; W. D. Parker, Compton Sta.; I. Cavers, Ormstown; J. B. Taylor, Ayer's Cliff; Ste. Marie, Whitecomb Bros., and Phaneuf.

Aged bulls.—D. T. Ness was first on Hillhurst Perfection and afterwards grand champion. Kay was second with Cherrybank Freetrader. Whitecomb Bros. were third with a large, deep bull, and Cabana was fourth. Cavers won bull two years old with Cheerful Masterpiece by Hobsland Masterpiece and out of a daughter of Maggie Finlayston. Taylor was second with Robin Hood of Fairmount. Phaneuf stood in third place. Bull, one year: 1, Ness; 2, Cavers; 3, Ness; 4, Parker. Bull calf, senior: 1, Parker on a very sweet calf, Borland General White, that was imported in dam and later won junior male championship; 2, Kay; 3, Cavers; 4, Ness. Bull calf, junior: 1, Denis; 2, Taylor; 3, Kay; 4, Taylor.

In aged cows Taylor won with a deep, milky-looking cow just about to freshen, Kingsley Heights Lilly. Cavers was second with Ryanogue Genieve, Kay third with Ravensdale Lovely Rose.

The grand champion female came from the three-year-old class, Ness' Edgewood Trim, a very typey young cow with a nice udder and teats. Ness was also second in the class with Burnside Baroness; Cavers third on his young Orange Blossom cow, and Kay fourth on Ravensdale Alice. Kay won in two-year-olds and junior female championship with Ravensdale Lady Mex; 2, Ness; 3, Kay; 4, Cavers. Heifer, one year: 1, Ness; 2, Taylor; 3, Ness; 4, Cavers. Heifer, senior calf: 1, Cavers; 2, Ness; 3, Kay; 4, Ness. Heifer junior calf: 1 and 2, Parker; 3, Kay; 4, Taylor.

Ness won the cup for best display of dairy animals, also the young and aged herd, while Cavers came second in both the herd prizes.

The Jerseys made a good showing, the competitors were few in number. Edwards and Alexander, of Hillhurst, won a large majority of the prizes and championships. Mr. Martin, of Warden, also made a good exhibit.

The French-Canadian breeders made a stronger exhibit than usual. M. W. Power, M. P., St. Pacôme, Que., carried off many of the honors, while E. Sylvester, Clairvaux, and A. Denis, St. Norbert, in many cases made good competition.

R. H. Libby, Stanstead; C. F. Standish, Ayer's Cliff; and W. A. Jolly, Waterloo, each exhibited a herd of Brown Swis, making keen competition.

SWINE.

In Yorkshires Mr. McCulloch, Sutton, showed a fine herd, winning the diploma and silver medal for best and most creditable exhibit of swine, while Mr. Phelps, South Stukely, and M. Miller, Brome Centre, were also exhibitors. Mr. Martin, of Warden, did not have much competition in Berkshires. The Chester Whites were out strong. E. Sylvester, Clairvaux; M. Miller, Brome Centre, divided the honors. McCulloch won the export bacon class, Miller second, Phelps third, and Sylvester fourth.

SHEEP.

The show of sheep was particularly good this year. The classes were all well filled and competition was keen. A number of new exhibitors were present, both from Ontario and Quebec, adding much to the numbers and general display.

The medium-wooled breeds were all well represented except the Suffolks. Shropshires and Oxfords were much stronger than last year. In Shropshires, Baker, of

Ontario; Denis, Woodward and Balsam were keen competitors. Denis secured the diploma for the best exhibit. Baker was first and second in aged ewes, Woodward second in yearling ram and first in ewe lambs. In Oxfords the honors were fairly equally divided between Denis and Balsam, Sylvester winning most of the third and fourth prizes. In aged rams Denis was first and Balsam second. Denis secured the diploma for the best exhibit. The exhibit of Hampshires was not as good as last year, either in numbers or quality of display. Lyster Bros.' flock were not in their usual show fit. Denis, Lyster Bros. and Balsam were the main exhibitors. Ayre, of Bowmanville, Ont., exhibited an excellent flock of Cheviots, carrying off the diploma and practically all the firsts and seconds. Mr. Sculley, of Knowlton, Que., was a new exhibitor of Southdowns, but Ayre again carried off most of the honors, including the diploma. The Dorset Horns were well represented.

The exhibit of long-wooled sheep was the equal of previous years. Allen Bros., Glaspell, and Denis exhibited Leicesters, Allen Bros. winning most of the firsts. Glaspell and Denis divided the honors in Cotswolds, and Denis and Balsam in Lincolns.

The Cars at Toronto Fair.

Over the main entrance of the Transportation building he who runs may read the words "Road, Rail and Water," but a tour of the interior proves conclusively that in so far as this department of the great Canadian National Exhibition for 1917 is concerned the word "Road" alone is necessary. In the early days this magnificent structure contained machines and contrivances indicative of forty different systems of travel; now the automobile is an undisputed king. Perhaps few people realize the importance of the Toronto Fair to the motorist. We can emphasize its tremendous value by stating that the auto displays constitute the only national show of such a nature in this Dominion. The exhibitions that come along the first of each year in Montreal and other points are not to be discounted, but Toronto's show, timed as it is for late August and early September, catches the auto manufacturer ready for his first display of new models. Most fiscal years with car makers end in midsummer, and following them every effort is concentrated upon the production of new stuff. So much for the magnitude of the auto array at Toronto.

We can sum up the innovations produced by the 1918 motor cars in a few words. Bodies do not present any startling changes. The five and seven-passenger designs are still with us in all their streamline glory. It is interesting to note that the one great manufacturer who still clung to the rough, angular type has at last given in to the beauty and convenience of streamline construction. The roadster bodies of two and three-passenger design and of fleur-de-lis and clover-leaf pattern are still with us and there is what has been named a "duplex" which contains two seats accommodating two each and reached by separate doors. This newcomer bids fair to attain considerable popularity. It will exactly meet the ideas of those who at times desire company but who upon other occasions are equally anxious to drive alone without carrying along a lot of vacant passenger space. Closed cars are being made with stationary tops. The styles that folded back do not figure very largely any more. The windows in the models are removable and so tourists are able to secure all the fresh air and ventilation possible. Body colors of flashy conception have practically disappeared and in their place we find the old reliable blacks, dark blues, deep maroons, and heavier shades. Motorists have come to realize that the best wearing colors and those that they do not tire of quickly are, so the return of bright, livid hues is far distant.

Wheels are taking on a dash of new life that is somewhat amazing. Perhaps the designers decided that as bodies were to be dark that the wheels should be light. At any rate the artillery as well as wire designs are in many instances finished in yellow, white, grey or some other lively hue. We believe this innovation should find favor. Nothing about a car is as attractive as the spinning of clean-looking wheels. Fabric tires still preponderate although the more expensive and heavier machines have been equipped with corded ones. It is hard to pass judgment upon this step. Cord tires certainly outwear the fabric makes, but the former cost more. In the end it would seem to be a simple case of getting exactly what you pay for.

Engine specifications have not been altered appreciably. Nearly all the standard makes show but trifling alterations. One famous manufacturer has added an eight cylinder to his line but he seems to be the exception necessary to prove the rule. Those who pinned their faith last year to the valve-in-head type are standing firm for next season, and the same is true of "L" and "T" head producers. The fact that winter driving is becoming more and more vogueish has impelled, or at least influenced, certain companies towards super-heaters, the running of the exhaust manifold pipes alongside the intake pipes. Then, too, clutches have in many cases been made easier of operation, and gear shifting robbed of exasperating noises. Airmeters are now almost universal and oil gauges will soon be equally so. A tendency to give more attention to cooling must inevitably meet with approval. Radiators are getting larger, water pumps more numerous, hose connections freer from cumbersome construction and jackets simplified. These are all steps in the right direction as everyone knows.

AUTO.

This is a record year in the growing of potatoes in the United States. The crop is estimated at 467,000,000 bushels, being 47 millions more than the record crop of 1912.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending August 30.

Receipts and Market Tops.

Dominion Department of Agriculture, Live Stock Branch, Markets Intelligence Division

	CATTLE						CALVES					
	Receipts		Top Price Good Steers (1,000-1,200)				Receipts		Top Price Good Calves			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	7,380	5,420	7,665	11.00	8.00	11.00	764	897	834	15.00	11.75	15.50
Montreal (Pt. St. Charles)	1,409	911	1,183	9.50	8.00	10.25	546	444	549	13.00	10.50	13.00
Montreal (East End)	1,935	1,247	1,425	9.50	8.00	10.25	541	666	295	13.00	10.50	13.00
Winnipeg	9,491	4,940	6,967	10.50	7.00	10.00	267	181	230	9.50	9.00	10.00
Calgary		1,676	731		6.25	8.50					8.75	

	HOGS						SHEEP					
	Receipts		Top Price Selects				Receipts		Top Price Good Lambs			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	6,835	7,666	7,467	19.50	12.25	19.75	4,513	5,778	3,569	15.75	11.75	15.50
Montreal (Pt. St. Charles)	3,360	1,021	1,624	17.50	12.25	18.50	3,077	1,813	2,105	14.50	11.00	14.50
Montreal (East End)	2,002	984	786	17.50	12.25	18.50	1,282	1,408	754	14.50	11.00	14.50
Winnipeg	3,438	3,466	3,846	18.00	11.00	18.60	1,235	617	348	13.00	10.35	13.00
Calgary		1,566	1,652		10.95	18.75		1,364	258		9.00	12.00

Market Comments.

Toronto (Union Stock Yards).

The cattle receipts for the week totalled seven thousand five hundred, of which forty-eight hundred were on the market on Monday. Many of the cattle which were received over the week end were of good to-choice quality, but for the balance of the week an inferior lot were on hand; they were mostly from Eastern Ontario points. During the week a number of heavy cattle were on sale and brought from \$11.50 to \$12.60 per hundred, one load from Wingham, Ontario, of thirteen hundred pounds each, bringing the latter price, while another good load sold at \$12.50. Also three loads of this class were shipped to New York during the week. Good butcher steers weighing from one thousand to eleven hundred pounds sold from \$10.25 to \$11, with common quality realizing \$9.25 to \$9.75. Light handy butcher steers and heifers sold from \$9.25 to \$9.75 per hundred for good quality; those of medium grade ranging from \$8.25 to \$9 per hundred. Common cattle were weighed up at from \$7 to \$8 per hundred. Cows and bulls were about steady at last week's quotations, with \$8.50 being paid for choice quality in these classes. Cannery and cutters sold at from \$5 to \$5.75 per hundred. Stockers and feeders were on hand in liberal numbers. Many loads of Western Canadian steers were in the alleys and fairly heavy shipments went to Ontario points. A few loads were shipped to the States, while some are going to the killing pens. Calves were selling at steady values all week, with choice veal realizing \$15 per hundred, and extra good quality \$15.50; the bulk, however, were bought at \$13 to \$14.50.

Lamb receipts were moderate for the week and prices remained fairly stationary, with the bulk selling at perhaps 25 cents lower on Monday, but this was regained during the week and the market closed at quotations on a level with those prevailing last week.

A report of an embargo being placed on Canadian hog products by the British Food Controller, together with a weakness developing on the American markets brought hog prices down \$2.50 per hundred over the week end, entailing rather serious losses to certain drovers. Select hogs realizing \$17 fed and watered on the Monday market, but during the week a firmer tone developed, and \$17.25 was paid for the bulk on the closing market.

The total receipts of live stock at the Yards from January 1st to August 23rd inclusive, were 134,591 cattle, 34,031 calves, 32,379 sheep, and 291,544 hogs; compared to 100,017 cattle, 32,141 calves, 50,090 sheep and 280,020 hogs, received during the corresponding period of 1916.

Montreal.

A liberal supply of cattle, totalling over thirty-five hundred head, was on hand at the Montreal markets during the week. Despite this large number trading was active, and while quotations were reduced anywhere from 25 to 75 cents per hundred on most of the classes, the lower quotations were due rather to lack of quality in the bulk of the offerings than to any real reduction in the market. No choice steers were on sale, but there were several loads of good, weighty cattle

TORONTO (Union Stock Yards)				
CLASSIFICATION	No.	Avg. Price	Price Range Bulk Sales	Top Price
STEERS				
heavy finished	318	\$12.00	\$11.75-\$12.25	\$12.60
STEERS good	415	10.22	9.75-10.50	11.00
1,000-1,200 common	60	9.25	8.75-9.75	9.75
STEERS good	968	9.73	9.25-10.00	10.00
700-1,000 common	342	8.55	7.75-8.50	9.00
HEIFERS				
good	367	9.77	9.25-10.25	10.50
fair	273	8.65	8.00-9.00	9.75
common	142	7.50	7.00-8.00	8.00
COWS				
good	910	7.79	7.25-8.25	8.50
common	1,191	6.26	6.00-6.75	7.25
BULLS				
good	58	7.68	7.25-8.00	8.50
common	308	6.33	5.75-7.00	7.75
CANNERS & CUTTERS	117	5.50	5.00-5.75	5.75
OXEN				
CALVES				
veal	703	13.88	13.00-15.00	15.00
grass	61	8.00	7.00-9.00	9.00
STOCKERS				
good	798	7.83	7.50-8.25	8.25
450-800 fair	567	7.22	6.75-7.75	7.75
FEEDERS				
good	467	8.77	8.50-9.50	9.50
800-1,000 fair	79	8.26	8.00-8.75	8.75
HOGS				
selects	5,982	17.37	17.00-19.50	19.50
heavies	198	17.00	17.00-19.50	19.50
(fed and watered) lights	329	16.62	16.00-18.00	18.00
sows	321	14.51	13.00-17.00	17.00
stags	5	12.60	12.00-15.00	15.00
LAMBS				
good	3,999	15.14	14.75-15.50	15.75
common	224	11.61	12.00-14.00	14.00
SHEEP				
heavy	106	8.70	8.00-9.50	9.50
light	105	10.00	9.00-10.50	10.50
common	79	7.00	6.50-7.50	7.50

from Ontario points. These sold from \$9 to \$9.50 per hundred, with \$10 and \$10.25 being paid in a few instances. There was a good export demand for butcher cattle, as also for cannery and cutters for shipment to the United States. Such inquiry did much to maintain prices on the common to medium cattle which made up the bulk of the receipts. Butcher heifers and cows of good quality were scarce and met with a good demand at from \$8.50 to \$9 per hundred. Quality considered, these prices were on a level with last week. Butcher bulls were also strong despite the prevalence of those of common quality. These sold up to \$8.75 in a number of instances, but the bulk of the best realized from \$8.25 to \$8.50. Common bulls brought from \$6 to \$6.75. Calves were very active all week under a good local and United States' inquiry, and light receipts; these sold up to \$13, with the bulk of the sales between \$10.50 and \$11.50. The market closed firm at these prices.

Sheep and lambs were very liberal in supply, there being over thirty-three hundred head on sale. The market was firm throughout the week at last week's closing prices, with a particularly good demand for shipment to Boston and Somerville, Massachusetts; over two thousand sheep and lambs, mostly medium to common lambs, to these

points. Good sheep sold up to \$9.50, while the best lambs brought from \$14 to \$14.50. The market closed firm at these figures.

There was a reaction in the hog market from the high prices that have prevailed of late, and prices were reduced by \$2 to \$2.50 per hundred, on all grades of hogs. Buyers refused to pay above \$17.50 for selects, off cars, and, with receipts amounting to over five thousand hogs on the two markets, the drovers were forced to sell at or under that price. Many of them had paid as high as \$17 at country points. During the week the bulk of the selects sold from \$16.75 to \$17.25 per hundred, fed and watered; heavies, \$16 to \$16.50; lights, \$16 to \$16.50; sows, \$13.25 to \$13.75, and stags, \$12.50 to \$12.75. The market closed at these prices, with the expectation of light receipts for next week and an improved tone to the market.

Pr. St. CHARLES.—Of the disposition of live stock from the Yards for the week ending August 23rd, Canadian packers and local butchers purchased 40 calves, 98 cannery and cutters, 436 bulls, 2 heavy steers, 615 butcher cattle, 1,624 hogs, 151 sheep, 997 lambs. Canadian shipments consisted of 1 calf and 21 butcher cattle. Shipments to United States' points were made up of 138 calves.

The total receipts of cattle from January 1st to August 23rd, inclusive, were 24,841

MONTREAL (Pt. St. Charles)				
No.	Avg. Price	Price Range Bulk Sales	Top Price	
4	\$10.25	\$10.25-		\$10.25
32	9.25	9.00-9.50		9.50
66	8.20	8.00-8.50		8.50
70	8.60	8.50-8.75		9.00
303	7.24	6.75-7.50		7.75
74	8.35	8.00-8.50		9.00
85	6.90	6.75-7.25		7.50
34	8.12	8.00-8.25		8.50
168	6.90	6.75-7.25		7.50
16	8.43	8.00-8.50		8.75
363	6.71	6.25-6.75		7.75
163	5.50	5.25-5.75		6.00
2	8.00	8.00-		8.00
166	11.01	8.00-13.00		13.00
380	6.77	6.50-7.00		7.00
798	7.83	7.50-8.25		8.25
567	7.22	6.75-7.75		7.75
467	8.77	8.50-9.50		9.50
79	8.26	8.00-8.75		8.75
5,982	17.37	17.00-19.50		19.50
198	17.00	17.00-19.50		19.50
329	16.62	16.00-18.00		18.00
321	14.51	13.00-17.00		17.00
5	12.60	12.00-15.00		15.00
3,999	15.14	14.75-15.50		15.75
224	11.61	12.00-14.00		14.00
106	8.70	8.00-9.50		9.50
105	10.00	9.00-10.50		10.50
79	7.00	6.50-7.50		7.50
2,598	16.96	16.50-17.25		17.50
87	16.24	16.00-16.50		16.50
464	16.29	16.00-16.50		16.50
202	13.47	13.25-13.50		13.75
9	12.60	12.25-12.75		12.75
933	14.25	14.00-14.50		14.50
1,817	13.23	13.00-13.50		14.00
48	8.50	8.25-9.00		9.00
35	9.02	8.75-9.25		9.50
244	7.60	7.50-8.00		8.00

cattle, 43,842 calves, 14,952 sheep and 45,096 hogs; compared to 26,812 cattle, 34,167 calves, 21,642 sheep, and 56,706 hogs, received during the corresponding period of 1916.

EAST END.—Of the disposition from the East End market for the week ending August 23rd, Canadian packers and local butchers purchased 294 calves, 1,018 butcher cattle and 786 hogs, Canadian shipment consisted of 408 butcher cattle and 61 hogs.

The total receipts at the Yards from January 1st to August 23rd, inclusive, were 25,530 cattle, 33,943 calves, 11,470 sheep and 27,934 hogs; compared to 23,949 cattle, 33,171 calves, 18,188 sheep and 35,443 hogs, received during the corresponding period of 1916.

Chicago.

Cattle.—Beef, \$8 to \$16.50; Texas steers, \$6 to \$13.80; stockers and feeders, \$6 to \$9.20; cows and heifers, \$4.80 to \$13; calves, \$12 to \$16.

Hogs.—Light, \$16.90 to \$18.65; mixed, \$16.75 to \$18.65; heavy, \$16.65 to \$18.60; rough, \$16.65 to \$16.95; pigs, \$12 to \$16.75.

Sheep.—Lambs, native, \$11.25 to \$17.40.

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THE MOLSONS BANK
are always made welcome

Especially at this time
when increased produc-
tion is so essential, our
Managers will cheerfully
discuss with farmers
their financial situation.

Savings Department at all Branches,
Interest at Highest Current Rate.

Buffalo.

Cattle.—Receipts last week were liberal at all American markets, as a result of which prices were lowered somewhat, shipping steers running generally from a quarter to thirty-five cents under the preceding week, while a class of medium quality, half fat steers, running from 850 to 1,150 lbs. sold fully a half dollar under the previous week. Of the supply of better than 6,000 for the Monday opening, sixty-five to seventy-five cars were Canadians. Best Canadian steers sold up to \$12.80, with the best native steers up to \$13.25. In the handy weight steer line best ranged up to \$11 to \$11.50, yearlings on the fair order making \$12.60. A class of steers running from \$9.50 to \$10.50 were especially slow sale. Fat cows and heifers generally brought steady prices, bulls sold at strong figures, stockers and feeders were firm sale, and a most satisfactory market was had on milk cows and springers, a fairly good Canadian milker bringing \$125. Predictions for the future are that choice steers, whether on the shipping or butchering order, will continue to bring good, strong prices; shipping steers in the West, that came out of feed lots, on long corn feed, sold up to \$16.30, and some authorities are prepared to believe that the top has not yet been reached. Quotations:

Shipping Steers.—Choice to prime natives, \$13.50 to \$14; fair to good, \$12.75 to \$13.25; plain, \$11.75 to \$12.50; very coarse and common, \$10 to \$11; best grass Canadians, \$12.50 to \$13; fair to good, \$11.25 to \$12.25; common and plain, \$10 to \$11.

Butchering Steers.—Choice heavy, \$11.50 to \$12; fair to good, \$9.50 to \$11; best handy, \$11 to \$12; fair to good, \$10 to \$10.50; light and common, \$8.50 to \$9; yearlings, choice to prime, \$13 to \$13.50; fair to good, \$12.25 to \$12.75.

Cows and Heifers.—Best heavy heifers, \$10 to \$11; yearlings, choice to prime, \$13 to \$13.50; best butchering heifers, \$8.75 to \$9.50; fair butchering heifers, \$7.25 to \$8; light and common, \$6.50 to \$7; very fancy fat cows, \$8.50 to \$9.50; best heavy fat cows, \$8 to \$8.50; good butchering cows, \$7 to \$7.50; medium to fair, \$6 to \$6.50; cutters, \$6.25 to \$6.50; canners, \$5 to \$5.75.

Bulls.—Best heavy, \$9 to \$9.25; good butchering, \$7.50 to \$8.25.

Stockers and Feeders.—Best feeders, \$7.50 to \$8; common to fair, \$6.50 to \$7.25; best stockers, \$7 to \$7.50; common to good, \$6 to \$6.75.

Milchers and Springers.—Good to best, in small lots, \$90 to \$130; in carloads, \$85 to \$100.

Hogs.—Receipts of hogs last week were very light and trade high, Friday, packers' weights on down to York kinds landing at \$19 to \$19.10 and more were wanted. Not enough hogs are coming to keep the local packers running on full capacity, to say nothing of the order demand, which is strong from the East to Buffalo. Quotations: Extreme heavies 280 up, \$18.85 to \$19.10; heavies 240 to 280, \$18.85 to \$19.10; mediums 220 to 240, \$18.85 to \$19.10; mediums 190 to 220, \$18.85 to \$19.10; mixed 180 to 220, \$18.85 to \$19.10; Yorkers 150 to 180, \$18.75 to \$19.00; Yorkers, light, 125 to 150, \$17.50 to \$18; pigs 120 down, \$17 to \$17.25; roughs, \$17 to \$17.75; stags, \$15 to \$16.

Sheep and Lambs.—Offerings in this division of the trade have been light, as a result of which prices have been ranging high, spring lambs selling up to \$16.50,

and more wanted. Sheep are running especially scarce, best land at \$10.50. Quotations: Spring lambs, \$11.50 to \$16.50; yearling lambs, choice, \$13 to \$13.50; yearling lambs, cull to fair, \$10 to \$11; wether sheep, \$10.50 to \$11; mixed sheep, \$10.25 to \$10.50; ewes, choice, \$9 to \$10; cull sheep, \$5 to \$8; bucks, \$6 to \$8.

Calves.—Supply of calves has been light and prices again high, top veals landing at \$17 to \$17.25, with Canadians, of which there were several cars last week, showing a range up to \$16.50 for the best, fair kinds and culls running from \$12.50 to \$13.50. Quotations: Veals, good to choice, \$17 to \$17.25; fair to good, \$16 to \$16.75; cull and common, \$12.50 to \$15; heavy rough calves, \$9 to \$10.50; grass calves, \$7 to \$8.50.

Toronto Produce.

Receipts of live stock at Union Stock Yards Monday, Sept. 3, were 230 cars, 5,060 cattle, 176 calves, 410 hogs, 1,558 sheep and lambs. Draggy market. Good butchers and cows and bulls steady; common cattle 15 to 25 cents lower. Sheep and lambs strong, 25 cents higher. Calves strong. Milkers, springers, stockers and feeders steady. Hogs fed and watered, \$17.50 to \$17.75.

Breadstuffs.

Wheat.—Ontario No. 2, new crop, \$2.15 to \$2.20. Manitoba (in store, Fort William)—No. 1 northern, \$2.40; No. 2 northern, \$2.37; No. 3 northern, \$2.33½.

Oats.—Ontario, no quotations; Manitoba (in store, Fort William)—No. 2 C. W., 63½c., nominal.

Barley.—Malting, new crop, \$1.20 to \$1.22.

Peas.—Nominal.

Corn.—No. 3 nominal.

Flour.—Manitoba first patents in jute bags, \$12.90; second patents, in jute bags, \$12.40; strong bakers', \$12; Ontario winter wheat flour, according to sample in bags, \$10.20; new crop, \$10.20.

Hay and Millfeeds.

Hay.—Track, Toronto, extra No. 2, \$11.50 to \$12; mixed, \$9 to \$10.

Straw.—Car lots, per ton, \$7 to \$7.50.

Bran.—Per ton, \$36.

Shorts.—Per ton, \$45; middlings, per ton, \$45 to \$46. Good feed flour, per bag, \$3.25.

Hides and Wool.

City Hides.—City butcher hides, green flats, 22c.; calf skins, green, flat, 27c.; veal kip, 22c.; horse hides, city take-off, \$6 to \$7; city lamb skins, shearings and pelts, 60c. to 90c.; sheep, \$2.50 to \$3.50.

Country Markets.—Beef hides, flat, cured, 20c. to 21c.; deacons or bob calf, \$1.75 to \$2.50 each; horse hides, country take-off, No. 1, \$6 to \$7; No. 2, \$5 to \$6; No. 1 sheep skins, \$2 to \$2.50. Horse hair, farmers' stock, \$20.

Tallow.—City rendered, solids, in barrels, 13c. to 14c.; country solid, in barrels, No. 1, 12c. to 16c.; cakes, No. 1, 16c. to 17c.

Wool.—Unwashed fleece wool, as to quality, fine, 60c.; coarse, 58c. Washed wool, fine, 70c.; coarse, 65c.

Country Produce.

Butter.—Butter again advanced in price during the past week, selling as follows on the wholesale: Creamery fresh-made pound squares, 44c. to 45c. per lb.; creamery solids at 43c. to 44c. per lb.; separator dairy at 40c. to 42c. per lb.; and dairy at 37c. to 38c. per lb.

Eggs.—Fresh gathered eggs also advanced and were quite firm, selling as follows, wholesale: No. 1's, 47c. per doz.; selects, 50c. per doz.; in cartons, 54c. per doz.

Cheese.—New, large, 24c.; twins, 24½c.; old, large, 30c. to 31c.; twins, 31c.

Beans.—Japanese hand-picked, \$7.50 to \$8 per bushel; Canadian hand-picked, \$9.25; prime, \$8.75.

Poultry.—Spring chickens, 20c. per lb.; ducklings, 17c. per lb.; old ducks, 10c. per lb.; roosters, 14c. per lb.; fowl, 4 lbs. and under, 18c. per lb.; fowl, over 4 lbs., 20c. per lb. Quotations all live weight.

Wholesale Fruits and Vegetables.

Apples came in more freely during the week and declined slightly in price, selling at 30c. to 65c. per 11-qt. basket; some imported Duchess bringing \$6.50 per bbl. The bulk of our Canadian apples are still exceedingly poor quality.

Bananas have kept stationary at \$2.50 to \$3.50 per bunch.

Blueberries continued to come in fairly freely and sold at \$1 to \$1.75 per 11-qt. basket, an odd one of extra choice quality bringing \$2.

Canadian cantaloupes are gradually increasing in quantity, and are commencing to be of better quality, ordinary grades going at 50c. to 75c. per 11-qt. basket and 75c. to \$1.25 per 16 qt.; some good salmon flesh bringing \$1.25 to \$1.50 per 11 qts.

Black currants continued to come in, and sold at \$1 to \$1.25 per 6 qts., and \$2 to \$2.25 per 11-qt. basket.

Grapes.—California Malagas and Tokays are now being received, selling at \$3.50 to \$4.50 per case, respectively.

Lemons were unchanged in price at \$7.50 per case.

Oranges also did not vary in price, selling at \$4 to \$4.75 per case.

Peaches, that is the home-grown, continued to be of very ordinary quality, selling at 20c. to 30c. per 6-qt. flat; 40c. to 75c. per 6-qt. leno; 35c. to 50c. per 11-qt. flat, and 50c. to 90c. per 11-qt. leno.

Pineapples came back again, selling at \$7 per case.

Plums were shipped in heavily, but they too are mostly poor grades, selling at 25c. to 40c. per 6-qt. flats; 40c. to 60c. per 6-qt. lenos; 60c. to 75c. per 11-qt. flats, and 75c. to \$1 per 11-qt. lenos.

Pears.—Canadian pears are still only being shipped in lightly, selling at 35c. to 50c. per 6-qt. basket, and 75c. to \$1 per 11-qt. basket.

Tomatoes have gone down and up in price during the week, according to the receipts, closing at 35c. to 50c. per 11-qt. basket.

Beets and carrots kept stationary at 20c. to 30c. per 11-qt. basket, and \$1 per bag.

Beans have only been shipped in lightly, and sold at 40c. to 60c. per 11-qt. basket. Cabbage still drags, as there has not been any demand for it.

Celery varied greatly in quality, selling all the way from 35c. to 90c. per dozen.

Cucumbers have not been shipped so heavily, but there is not much demand for them. They sold at 15c. to 25c. per 11-qt. basket.

Egg plants came in quite freely and declined, selling at 50c. to 75c. per 11-qt. basket; then advanced and brought from 75c. to \$1 per 11-qt. basket.

Gherkins are still a slow sale as pickling time has not arrived yet. They sold at 75c. to \$1.25 per 11-qt. basket, and 50c. to 75c. per 6-qt. basket.

Onions have been quite firm—California 100-lb. sacks selling at \$3.75; Ontarios at \$3 per 75-lb. bag, also at 50c. per 11-qt. basket. The pickling onions began to come in more freely and were of better quality, selling at \$1.50, \$1.75 and \$2 per 11-qt. basket.

Potatoes kept practically stationary at \$1.75 to \$2 per bag.

Montreal Produce.

Horses.—Occasional shipments are being made eastward to different points in the province of Quebec as well as in the Maritime provinces. Supplies of horses are very light, the demand for military purposes having cleaned the country up of the usual surplus stock of good animals. Accordingly, the market holds quite firm, prices being as follows.—Heavy draft horses, weighing 1,500 to 1,700 lbs., \$225 to \$275 each; light draft horses, weighing 1,400 to 1,500 lbs., \$175 to \$225 each; small horses, \$150 to \$200 each; culls, \$75 to \$125 each; choice saddle and carriage horses, \$200 to \$250 each.

Dressed Hogs.—Fluctuations have recently been somewhat larger than usual but the market was showing a slight improvement, by comparison with the recent weakness. Prices were well below those of the previous week, abattoir, fresh-killed stock being quoted at 23½c. to 24c. per lb.

Potatoes.—The price of potatoes continues very firm all things considered. There are reports here that the continuous rains have caused a great deal of rot to the new crop, more especially in the low lands. Canadian potatoes are being quoted at \$2.15 to \$2.25 per bag of 80 lbs. It is understood that importations of American potatoes is taking place in a limited way.

Honey and Maple Syrup.—Receipts of new honey are by no means large, and the market held quite firm at around recent prices, namely 15c. for white clover

comb, and 14c. for extracted; 13½c. per lb. for brown clover comb, and 11c. for extracted. Maple syrup was in moderate demand, and prices were steady at \$1.50 to \$1.75 per gallon tin of 13 lbs. for choicest quality, and from \$1.45 down to \$1.30 for the lower grades. Sugar sold at 15c. per lb.

Eggs.—No change has taken place in the market for eggs during last week. The quality of the stock continued poor as a result of the recent warm weather and the harvesting operations. Strictly new laid eggs were quoted at 52c. to 53c.; select stock ranged from 45c. to 48c.; No. 1 candled being 44c., and No. 2 candled about 40c. per doz.

Butter.—During last week, the market for creamery showed a somewhat easier disposition. The make is somewhat larger, again, it is said, and as the cooler weather approaches the quality is likely to show the customary improvement. Quotations last week on finest creamery were 41c. to 42c. per lb., fine being at a range of 1c. below. Choicest dairy butter ranged as high as 38c. while the poorer grades ranged from 37c. down to 36c.

Cheese.—The commission quotes the following prices: No. 1 cheese, 21½c.; No. 2, 21¼c.; No. 3, 20¾c.; lower grades, 20½c., being the same as a week ago.

Grain.—No. 2 Canadian Western oats were changing hands at 74c. to 75c.; No. 3 and extra No. 1 feed are 73c. to 74c., with No. 1 feed at 72c. to 73c., and No. 2 feed, 70c. to 71c. per bushel, ex-store. The production of beans will be much larger this year but in the meantime prices are steady, with Canadian 5-lb. pickers \$9.50 to \$9.75; 3-lb. pickers, \$10.25 to \$10.50; Rangoons \$8.75 to \$9; Yellow eyes \$8 to \$8.25, and Japans \$7.50 to \$7.75.

Flour.—The market was steady. Manitoba first patents \$13 per barrel, in bags; seconds, \$12.50; strong bakers' \$12.30. Ontario 90% patents \$12 to \$12.30 per barrel, in wood; and \$5.80 to \$5.95 per bag.

Millfeed.—Prices were moderately steady, though the high point of the recent range was hardly obtainable. Bran \$35 per ton, in bags; shorts, \$40; middlings, \$48 to \$50; mixed mouille \$55 to \$56; pure grain mouille, \$60 to \$61.

Hay.—The market was steady for baled hay, at \$9.50 to \$10 per ton for No. 2, in car lots, ex-track; \$8 to \$9 for No. 3, and \$6 to \$7.50 for lower grades, per ton.

Hides.—Lamb skins were up to \$2 each; calf skins were down 2c., at 36c. and 38c. per lb. Beef hides steady at 25c., 26c. and 27c. per lb. Horse hides \$7 each; rough tallow 3c. to 6c. per lb., rendered 11c. to 13c.

Bruce's Seeds.

In the advertisement of John A. Bruce & Co., Limited, appearing in this issue, the price of Crimson clover should read \$13.50 per bushel instead of \$12.00, and the price of bags should be 40c. instead of 30c. These changes reached this office too late to be made in the advertisement.

Questions and Answers.

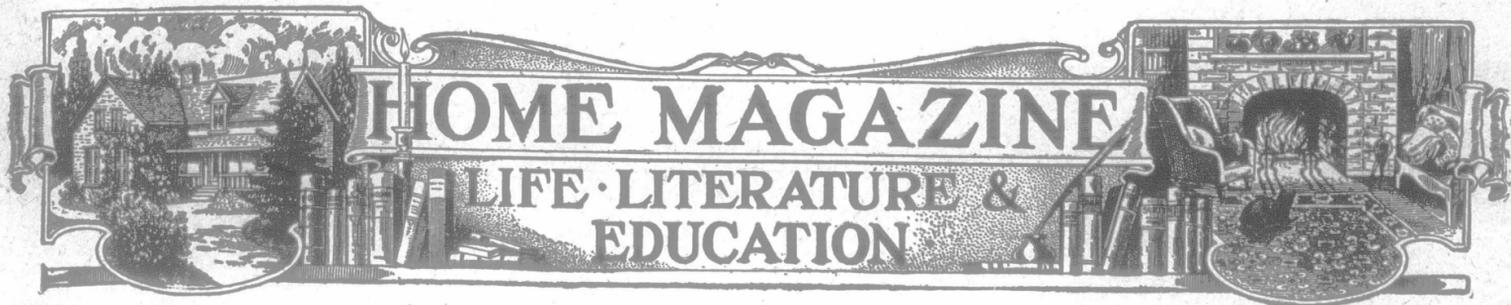
Miscellaneous.

Training A Pup.

What is the correct way of training a pup to go at the feet of cattle instead of their heads? Will you give me some suggestions for training a dog?

A SUBSCRIBER'S SON.

Ans.—This is rather hard to explain in detail in small space. Always be kind with the pup. If possible break him in with a well-trained older dog. If this is not possible patiently work him alone as soon as he is old enough. Take him with you for the cows night and morning. Teach him to drive them by keeping him behind. If necessary use a rope for a while until he learns to "heel" them. Have patience and work slowly. Do not allow with a badly trained older dog. Take precautions to prevent injury to the pup. It will require time and always encourage the pup when he does well by patting and talking to him. Do not abuse him when he makes mistakes. Kindness and patience are the main attributes of a successful dog trainer.



Before the Assault.

The war is taking a heavy toll of our poets. Second-Lieutenant R. E. Vernede, of the Rifle Brigade, who has died of wounds, was a singer of notable accomplishment. The following verses from his pen appeared in the Glasgow Observer:

If thro' this roar o' the guns one prayer may reach Thee,
Lord of all Life, whose mercies never sleep,
Not in our time, not now, Lord, we beseech Thee
To grant us peace. The sword has bit too deep.

We may not rest. We hear the wail of mothers
Mourning the sons who fill some nameless grave;
Past us, in dreams, the ghosts march of our brothers;
Who were most valiant. . . whom we could not save.

Hark, the roar grows. . . 'the thunders
We ask one thing, Lord, only one thing now:
Hearts high as theirs, who went to death unshaken,
Courage like theirs to make and keep their vow.

To stay not till these hosts whom mercies harden,
Who know no glory save of the sword and fire,
Find in our fire the splendour of Thy pardon,
Meet from our steel the mercy they desire.

Then to our children there shall be no handing
Of fates so vain—of passions so abhorred
But Peace. . . the Peace which passeth understanding.
Not in our time. . . but in their time,
O Lord.

Among the Books

"Changing Winds."

[*Changing Winds*, by St. John Ervine. The Macmillan Publishing Company, Toronto and New York, \$1.60.]

People who read much fiction—without judgment—know that while a hundred novels may be cast aside as merely passable, the one hundred and first may prove to be worth reading. *Changing Winds*, by St. John Ervine, a brilliant young Irishman who has come rapidly to the front both as novelist and dramatist, is one of the "one hundred and firsts". True, one may not agree with all of the conclusions—that depends, perhaps, on one's training, politics and religion—yet the greatest objector, on these scores, must acknowledge Mr. Ervine's brilliance and real genius as a novel writer.

The story revolves about four fine young men, one of whom, Gilbert, who eventually goes to the Dardanelles, is supposed to have been based upon the poet, Rupert Brooke. Incidentally bits of philosophy and much comment on life and on recent events and conditions are interwoven in the conversations of these young men. Everywhere the character-sketching rings true. There are no straw-stuffed figures. Realities are faced squarely.—And the book is not overdone with love-story.

It closes with a vivid account of the Sinn Feiners' rebellion, during which the leading character, Henry Quinn, the Irishman, who has all his life been haunted by a congenital fear of death, finds that it is possible to depart "beyond England, to France and Flanders and the fields

of blood and pain." After all a real gentleman cannot be a coward.

As an example of the style of *Changing Winds* we have chosen one of these last chapters, perhaps because of its faithful characterization of the British soldier. The scene is in Dublin:

And now the rebellion began to bore him. He could not work, and the walks he could take were circumscribed. He walked down to Trinity College and stood there, watching the soldiers on the roof of the College as they fired up Dame Street to where some Sinn Feiners were in occupation of a newspaper office, or along Westmoreland street towards the Post Office. Wherever he went there was the sound of bullets being fired. . . but after a while the sound ceased to affect him. There were snipers on roofs. . . and people had been killed by stray bullets. . . but, although the sudden crack of a rifle overhead made him jump, the boredom grew and grew and increased. He wanted to get on with his work.

The soldiers were pouring into Dublin now. . . more and more of them.

"It'll be over soon", he said to himself. It seemed to him then that the thing he would remember always was the dead horse which still lay on the pavement, becoming more and more offensive. Wherever he went, he met people who said to him, "Have you seen the dead horse?" Impossible to forget the corrupting beast. . . Magnify that immensely, in-

been treated champion. I 'aven't seen much of it yet, of course," he went on. "I've been 'ere ever since I landed!" He pointed to the pavement. "But I know this bit damn well. You know," he went on, "we thought we was in France when we arrived 'ere. Couldn't make it out when we saw all the signs in English. I says to a chap, as we was walking along, 'I, I says, 'is this Boolone?' 'Naow', 'e says, 'it's Ireland.'" "And what did you say?" said Henry. "I said 'Blimey!'" He moved to the kerb as the soldier further along the street called "Pass these men along", and when he had called the warning to the next soldier, he returned to Henry. "I say," he said, "wot are these Sinn Feiners? I mean to say 'oo are they? Are they Irish, too?"

Henry tried to explain who the Sinn Feiners were.

"But wot they want to do? Wot's the point of all this. . . this 'umbuggin' about? We don't want to fight Irish people. . . We want to fight Germans!" He looked about for a moment, and then added, as if to clinch his statement, "I mean to say, I know an Irish chap. 'e's a friend of mine. . . but I don't know no bloody Germans, an' wot's more I wouldn't know them neither. . . dirty lot, I calls 'em!"

"You know," he went on, "this is about the 'ottest bit of work a chap could 'ave to do. These snipers, you know, they get on your nerves. I mean to say, 'ere you are, standin' 'ere, you might say, in the dark an' suddenly a

You don't 'alf begin to feel a bit jiggery when that's 'appening. . ."

There was no malice in that soldier. He was puzzled, as puzzled as he would have been if his brother had suddenly seized a rifle and lain in wait for him. He looked upon the Irish as his comrades, not his enemies. "I mean to say, we're all the same," I mean to say! . . . He had been in camp at Watford. "We was in a picture-palace, me an' my pal. . . a whole lot of us was there. . . and then a message was put on the screen: 'All the Dashes report at once!' I never thought nothink of it, you know. Of course, I went all right. But I thought it was just one of these bloomin' spoof entrainments. They done that to us before. . . two or three times. . . just to see 'ow quick they could do it. . . I was gettin' a bit fed-up with it. I'd said 'good-bye' to a girl three times. . . an' it was gettin' a bit monotonous. 'At it again,' I says to my pal, as we hooked back to the camp, but when we was in the train, an' it didn't stop an' go back again, I says to 'im, 'Illoa,' I says, 'we're off!' An' I 'adn't said 'good-bye' to 'er this time!' An' there we was. . . off at last! 'This is a nice-old-'ow-d'ye-do!' I says. I didn't want the girl to think I was 'oppin' it like that. . . sayin' nothink or anythink. . . When we got to Kingstown an' 'eard we was in Ireland. . . well, I mean to say, it surprised me, I tell you. . . Wot I can't make out is, wot's it all about? I mean to say, wot do these chaps want?"

"They want to be free. . ."

"But ain't they free? I mean to say, ain't they as free as me?"

"They don't think so'.

"Well, wot can I do that they can't do?"

Henry did not know. "You ast me anythink", the soldier went on, "they're a lot freer'n wot we are. I mean to say, we got conscription in our country, but they ain't got it 'ere."

There was another interruption, to enable a motorcyclist to pass along. When he returned to Henry, he said, "you know, when we got 'ere, an' all the people come out their 'ouses an' treated us like their long-lost brother, we couldn't make it out at all, an' when we 'eard about the Sinn Feiners, we didn't know wot to think. I mean to say, we didn't know 'oo they was. One of our chaps thought they was black. . . you know. . . niggers. . . but I told 'im not to be a bloody fool. 'They don't 'ave niggers in Ireland', I says, 'They're the same as us,' I says. 'I mean to say. . . they're white!'"

Noted Women.

Japan's First Woman Banker.

When Asa Hirooka was a little girl she wanted to be a boy. That was because she believed all the privileges she wished to enjoy were confined to the other sex. Asa Hirooka is now a Japanese woman, and early in life she rebelled—that was some fifty years ago, she admits—rebelled against the conventions of her country. As she grew older she determined to throw off the shackles of custom that bound the Japanese woman of her younger days. She succeeded so well that she became the first modern banker of Japan, and took on coal-mining and life insurance as side issues. Later in years she became interested in the study of philosophy, and to-day is an earnest Christian and social-reform worker. Lucia B. Harriman tells the interesting story of the life of Madam Hirooka in *The World Outlook*. She says: It was in the garden of her home in Osaka, that central dynamo of industrial Japan, that Madam Hirooka told me the story of her life, a record of the ever-fascinating struggle for the expression of



A Recent Portrait.

King George and Queen Mary, President Poincare of France and Madam Poincare; in the back row the Prince of Wales, Sir Francis Bertie and Sir Douglas Haig. Underwood & Underwood.

crease enormously the noise, and one had the War! Noise and stench and dead men and boredom! . . .

He wandered about the streets, seeing the same people, listening to the same statements, making the same remarks, wondering vaguely about food. He had seen high officials carrying loaves under their arms, and little jugs of milk. . .

"I wish to God it was over," he exclaimed, "I'm sick of this. . . idleness!"

He spoke to a soldier in Merrion Square. "Do you like Dublin?" he said. "Oh, fine!" he answered. "We've

bullet damn near 'its you. . . or mebbe it does 'it you. . . one of our chaps was killed in front of that 'ouse last night. . . they been swillin' the blood away, see! . . ." Henry looked across the road to where a man was vigorously brooming the wet pavement. The soldier proceeded: "Well, you don't know where it's comin' from. 'E's up on one of these 'ere roofs, 'idin', an' you're down 'ere. . . exposed. 'E kneels be'ind the parapet, an' 'as a shot at you an' then 'e 'ops along the roof to another place, an' 'as another shot at you. . .

individuality, made doubly difficult here in the Orient, where the individual—particularly if she has the ill-luck to be a woman—is lost in the family, the real unit of society.

Throughout the interview—which was carried on through the medium of an interpreter, a charming girl student of Doshisha Girls' School, a representative type of the coming woman of Japan—it interested me to observe that the term "woman's movement", which we used frequently during our conversation, was always expressed in English. Another expression that was never translated but used by Madam Hirooka at frequent intervals was "strong will."

These two expressions from the key-notes to her entire career. She possesses the latter, doubtless an inheritance from a male ancestor, and she believed from her childhood in the former, although it has only been within the past few years that she gave it a name. To-day she is Japan's foremost exponent of the woman movement. Her entire life has been a protest against the inequalities of the sexes as emphasized by the laws and customs of her people.

"When did you resolve to assert yourself?" I asked her early in our conversation. "Early in my girlhood", she replied. "The more I thought about it the more determined I was that a girl should be treated as a human being—not as a slave. No expression of this feeling escaped me, however. Outwardly I was a typical Japanese girl, meek, submissive, dutiful, self-effacing. Then at the age of seventeen came marriage and deliverance of a sort. To the average Japanese woman marriage is only a shift in the obediences, from that of one's own parents to that of the husband and his parents.

"My husband was nine years older than I, and the nominal head of the great firm of Hirooka, which, like that of my father's family, carried on the financial affairs, the money-lending, etc., of the Daimios—the feudal lords of the nation. Actually, my husband regarded money-making as vulgar and beneath his notice. With others of his kind he spent the greater part of his time at the fashionable tea-ceremonies and at geisha entertainments.

"This gave me my opportunity. As soon as my husband left in the evening, I would begin my studies. I taught myself to read and write the Chinese characters. I purchased a *soroban*, and taught myself mathematics. I bought books and devoured them. There were comparatively few to be had, for we were still a hermit nation, shutting ourselves in, and the West, and all it had to give us, out. Science, politics, industry, Western literature, and arts were all closed books to us before the Restoration, for under the Tokugawa shogunate there had been 300 years of isolation from the rest of the world, with emphasis laid on luxurious living and elaborate social customs to while away the time of the rich and idle.

"One of the few books that I was able to obtain explained the American banking system to me. I knew that our business was in the same state as that of many another big family—on the verge of dissolution; that unless some one undertook its management and directed it with close attention to detail, it was bound to fall. I knew I could do this. I tingled to show my ability, to use my newly acquired knowledge.

"But that a woman should engage in business, particularly that which related to money matters and high finance, was unheard of, unwomanly, disgraceful. I knew it would mean ostracism, jealous criticism, ridicule, and opposition from every side. But I knew that I was strong enough to battle against even these, and I set to my task with the consent of my husband, who was both skeptical of my ability and indifferent to my ambitions."

What Madam Hirooka was able to accomplish is writ large in the history of Japan's modern business development. She not only put her husband's business in excellent condition, saving it from failure at the time of the Restoration in 1868, when all about them went to the wall, but developed it into a modern banking business on Western lines—the first in the history of the nation, which now has more than 5,000 national and private banking establishments.

Not content with this demonstration of her business ability, Mme. Hirooka, with far-sighted wisdom, forecasted the development of Japan's industries, her cotton and silk manufactories, her railways and ship-

ping interests, and advanced the idea of the necessity for the development of Japan's coal mines, specifically those on the Island of Kyushu.

This met with stubborn opposition from her business associates. Mining was looked upon with the same scorn that an Englishman looks upon "trade"—not to be mentioned in polite society. Not being able to overcome the antagonism of her family and associates, Mme. Hirooka determined upon the undertaking without the aid. She went to Moji, and, inspecting the land, leased it from the Government and personally directed the development of the mines. This was in 1879, when she was but twenty-eight years old.

Despite the predictions of failure, for mining without modern machinery and trained men was regarded as a great speculation, Madam Hirooka's venture proved an unqualified success and in ten years she was able to sell out the greater part of her business to the Mitsui company at a large profit, reserving a small share which she recently sold to the Government for a half-million yen.

Another enterprise in which Mme. Hirooka has been a pioneer is life insurance. The closing out of her mining interests left her free to return to Osaka, where she enlarged the bank and formed a life-insurance company, called the Asahi Company, with a capital of 2,000,000 yen. This has since been consolidated with other companies and is now known as the *Vai-do Seimei Hoken Kaisha*.

To-day Mme. Hirooka, at the age of sixty-five, although as keenly interested as ever in her business, has relinquished much of its personal supervision to her son-in-law, who, as a *yoshi* (an adopted son), car-

concessions to the family by adding Japanese rooms, where her grandchildren spend much of their time when they are not studying under an American government.

"How long will it take to bring it all about?" I asked.

"At least fifty years," she replied. "I shall not be here to see it, but it will come."—Sel.

Hope's Quiet Hour

For Their Sakes.

For their sakes I consecrate myself, that they themselves also may be sanctified in truth.—St. John 17:19 (R. V. margin).

Our Lord's great conflict was near at hand, and He was treasuring every moment of that last evening with His dearest friends. Going forward to face death, for those friends and for mankind, He was not blind to the greatness of the sacrifice so willingly offered. "Greater love hath no man than this, that a man lay down his life for his friends. Ye are my friends, if ye do whatsoever I command you," He said to those men who would have held him back from the road to Calvary if they could. St. John never forgot the wonderful words of peace and comfort which his Master spoke that night. Can any farewell compare with that described in St. John XIV, XV, XVI? Then the Master turned from the

consecrated themselves for our sakes—are we worth dying for? With no half-hearted unwillingness those Canadian volunteers pressed forward to the danger-line, placing themselves between us and the horrors of war. They deliberately faced mutilation, imprisonment or death for our sakes—are we willing to accept their sacrifice and make no return? What are we doing for their sakes? For their country's good they have shown themselves ready to die. It is our part to consecrate our lives for the good of others. Selfishness is dead failure. We are given one life on earth, one opportunity to serve our generation. What opportunities of service may open up to us after death we don't know, but we have plenty of opportunities here.

Our Lord sketched in a few words the picture of one whose life on earth was a failure. Some might call it a "successful" life. The man was rich, royally dressed and sumptuously fed. The sick beggar at his gate lay unattended and uncared for. Only the dogs visited him. The rich man's life of selfish comfort slipped away, and one day Death's stern hand swept aside the mists which had blinded his vision, and he saw how he had failed to use the opportunity of helpful service which we call "Life." He had made a failure of life, but—after death—the desire to help other perishing souls awoke in his heart. And so our Lord leaves Him, no longer absorbed in his own interests, but eagerly desirous of arousing his brethren to their need.

In this day of glorious heroism it seems impossible that any should be content to receive everything and give nothing. We may not be able to do anything "great,"

but at least we can refuse to make self-interest our object in life. For the sake of the men who are consecrating their lives to their country's service, we can try—by straight dealing, clean living and right thinking—to be worthy of the sacrifice they are making.

I want to quote some words from that splendid book—"The Great Discovery"—by Norman Maclean.

The ticket-collector was speaking.

"Mahn," said he, "I've come to a great resolution. I'm too old to fight; and they can't get at me in any way. No income tax for me; and threepence on the tea is naething, for I never take it; I want to feel that I am worth men dying for me; and I am going to be tee-total till the end of the war. I'll give the money to help the soldiers' weans."

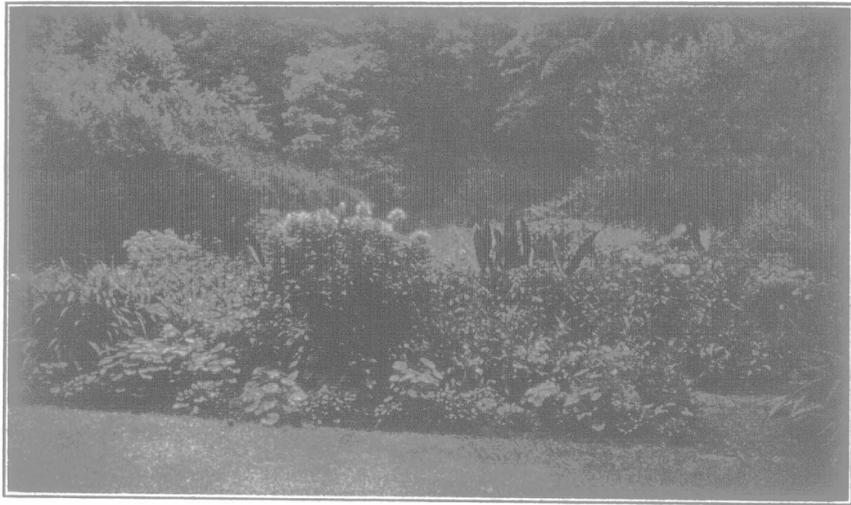
Two men who heard him went on their way, exclaiming indignantly over his silly resolution. They slowed up as they neared the village inn, then went resolutely past it. They said he was foolish—but his example was followed.

Then Mr. Maclean tells how a man who had gone out to serve his country killed a comrade in a drunken brawl. "His mother doubtless sent him forth to fight as a hero for his King, and he became a murderer under the fostering of the State."

Men are putting their lives into deadly peril every day, in order to carry food to England; yet I received a letter yesterday from Old London which described how the busses were decorated with signs: "Eat less bread and drink Buchanan's whiskey." The sailors risk their lives to provide food for hard-pressed England. For their sakes the precious grain should not be wasted—and worse than wasted—by the men who stay at home.

May I quote again from "The Great Discovery?"

"What reward are we preparing for the men who are baring their breasts to the arrows, standing between us and death? When they come back, war-worn, to what will they return? To homes in which the fires are extinguished, the cupboards bare, the children neglected? Is that to be the guerdon of their sacrifice; is it for that that they have gone down into hell? Surely it cannot be for that! We can make the world know that we



Where Garden Meets the Woods.

(Horticultural Societies' Report, 1916.)
In fall a border like this can be got ready for next year.

ries on the family business and perpetuates the family name, which he adopted on his marriage to her only daughter.

At sixty Mme. Hirooka began the study of philosophy. At sixty-one she became interested in Christianity, studied its message and accepted it. To-day she has pledged herself to spend the remaining years allotted to her in disseminating its truths and working for the advancement of the women of her country, who, she assured me, needed more than any other one thing "to develop strong wills."

Many men in Japan, Mme. Hirooka confided to me, favored Christianity except for its moral code and its attitude toward woman. Once, in a conversation with the late Prince Ito, he had assured her that he thought Christianity "good on the whole, but too strict in its moral standards." She had come to realize, she told me, that "only Christian ideals would lift women to the place they had a right to occupy, side by side with men."

Within the past year, to the surprise even of herself, Mme. Hirooka has launched forth as a public speaker. She is forceful and dynamic; her talks to the hundreds of women, whose secluded lives have been the practical working out of that same book of morals which Mme. Hirooka so despised in her youth, are along Christian and practical lines.

Mme. Hirooka many years ago adopted Western dress, and just as she demands that her frocks be foreign, so has she built her house—a handsome mansion in the suburbs of Osaka. She has made

earthly friends He was trying to inspire with hope and good cheer. Looking up to His Father He uttered the prayer of the True High Priest, offering Himself to be the One Sacrifice for the sins of the whole world. He was proving His undying love for man and pleading for such visible unity of His followers as must convince the world of His Divine Mission. For their sakes He consecrated Himself, giving up His life for them; but He was a Leader as well as a Saviour, and was sending them into the world to bear witness for Him and His Cause—the Cause of personal holiness and national righteousness. Dying, He looked forward to the time when He should "see of the travail of His soul, and be satisfied." He expected death—and victory! He was ready to die for His friends, willing to consecrate His young life for their sakes. Were they worth dying for? He knew that, in the first shock of seeing Him arrested, they would fly in panic. But would they rally again and prove themselves worthy of their calling? Would they retreat before the forces of evil and then, in shame, turn and conquer the foe? Though He knew they would act like cowards, knew that even the boldest apostle would that very night disown all connection or knowledge of Him, yet He trusted them still. One was a traitor, but the rest were loving and true of heart, though weak.

When I see groups of returned soldiers, many of them with a leg or an arm missing, I can't help a sense of shame. They

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are worth fighting for—worth that the young, the strong, and the brave should take everything they hold dear—their ideals, their love, their little children unborn—and throw them into the trench, and there give themselves and their dreams to death for us. We must see to it that we are worthy the sacrifice."

Long ago, when David's men were quarreling about the proper division of the spoils of battle, their young leader made a law which became a statute for Israel. This was his order: "As his part is that goeth down to the battle, so shall his part be that tarrieth by the stuff: they shall part alike." Such a law takes it for granted that those who stay at home will serve their country as faithfully as those who go out to fight. The soldiers lay down their lives for our sakes; for their sakes let us consecrate our lives in daily kindness, in unwearying prayer for those who are claiming our prayers as their due, in honesty and truthfulness, in purity and temperance. Then our nation will be able to hold up its head among the nations and God Himself will be with us and uphold our Empire. The old cynical saying that "God is on the side of the biggest battalions" over and over again has been given the lie. God is on the side of righteousness, and no prayers or offerings can win Him as an Ally unless we "do justly, love mercy, and walk humbly with our God." The prophet Micah declared that it was useless to sacrifice thousands of rams, ten thousands of rivers of oil, or even a first-born son, in order to win God's favor. God demands something greater than prayers and sacrifices—honor and honesty. The scant measure is abominable in His eyes, also the wicked balances and the deceitful weights.—Micah VI. What does He think about baskets of fruit with the best samples always on top? What does He think of the profession of religion on Sunday and the utter forgetfulness of God during the week?

We are not our own, for we are bought with a price—the Son of God laid down His life to save us from eternal death. For His sake, above all, let us consecrate ourselves, and spend our lives for some higher purpose than selfish gain or pleasure. What is our object in life? It cannot be only—

"To dress, to call, to dine, to break
No canon of the social code,
The little laws that lacqueys make,
The futile decalogue of 'Mode,'—
How many a soul for these things lives
With pious passion, grave intent!

And never ev'n in dreams has seen
The things that are more excellent!"
DORA FARNCOMB.

Gifts From Readers.

One of our readers has sent five dollars for the Q. H. purse, to be spent on some needy and helpless patients. She also sent a goodly supply of S. S. papers—"Onward" and "Pleasant Hours"—for distribution in the hospital wards. These papers are able to carry good cheer to many "shut-ins," and I am very glad to be able to pass them on.

DORA FARNCOMB.
52 Victor Ave., Toronto.

The Beaver Circle

Our Junior Beavers.

A Harvest Rescue.

BY ELLEN D. MASTERS.

'Twas harvest-time at Rosedale Farm;
The wheat was ripe, the sun was warm.

While o'er the fields the reaper wound,
The waving wheat was mowed and bound.

And then a pair of whirring wings
Flew up before the great steel things

That cut the graceful, waving wheat
And tied it up in bundles neat.

Billy and Ned ran in between
The standing wheat and the big machine;

Ah yes, 'twas true—just as they guessed!
"Stop! stop! We've found a partridge nest!"

So that is why the little square
Of wheat stands 'mid the stubble there.

And that is why the whirring wings
Flew back to warm the precious things—

The dozen tiny chicks that rest
All safely 'neath the mother-breast,

While Bob-White calls, in proud refrain,
His name from fields of garnered grain.

Junior Beavers' Letter Box.

Dear Puck and Beavers.—I have often thought of writing, but this is the first time I have ever taken courage to do so. I go to school every day unless I am sick. I have a little over a mile to go, and live on a farm of a hundred acres. The violets have been very pretty in the woods. Some days at school we go to the woods and get flowers, which we enjoy very much. We have two little ducks and about forty-five little chickens. I have read quite a few books, some of which are "Glengarry School Days," "Pollyanna," "Anne of Green Gables" and many others. I will close hoping the w. p. b. is off in a doze when this arrives.
BESSIE HOLM.

Hespeler, Ont., R. R. No. 1.

Dear Puck and Beavers.—Daddy has taken "The Farmer's Advocate" for quite a few years, and I enjoy reading the Beavers' letters. I walk two miles and a half to school every day. Our teacher's name is Miss McNish. I have a dog whose name is Fox, and when he is harnessed and hitched in the sleigh he will come nearly half a mile to meet me coming home from school and give me a ride home. I am nine years old and in the junior second class.

RUTH LIGHTFOOT.

Parkhill, Ont., R. R. 6.

Dear Puck and Beavers.—My father has taken "The Farmer's Advocate" for quite a while, and I certainly like reading your Circle. I have three sisters and two brothers. I have one pet cat called Johnny. I live half a mile from school. My sister and brother go with me. I am ten years; my sister that goes with me is seven years old; my brother is 12 and has written the entrance. I have two sisters and one brother who have written the entrance long ago. Well, I guess I shall close now.

GENEVIEVE MCPHEE.

Park Hill, Ont.

Dear Puck and Beavers.—This is my second letter to your Circle. Since I did not see my other letter in print I thought I would try again. I have a pet dog and pet cat; the dog's name is Gamey, and the cat's name is Nigger. We play baseball and "anty, anty I over," and many other games at school. There are some woods right across the road from the school and it is just filled with flowers. My letter is getting long so I will close with some riddles.

Why is a Ford car like a school-house?
Ans.—A crank at the front and nuts in the seats.

Why is a pig in the parlor like a house on fire?
Ans.—Because the sooner its put out the better.
LLOYDTOWN, ONT. LORNA DAVIS.

Setting the Table.

It is quite surprising how often the request arrives for these columns, "Please tell me just how to set a dinner-table?"—Sometimes, no doubt, it is a little bride fresh from school or office who asks, and sometimes, possibly, someone who has been used to rather rough ways of living and wants to do "the proper thing."

It is very true that our manner of eating shows our refinement, or lack of it, more almost than anything else except, perhaps, our manner of speaking. Boorish manners and ungrammatical speech proclaim us, just as pretty manners and "good English" also proclaim us. But there is one thing about both manners and English: they can be cultivated. There is no reason, except carelessness, why people should not be possessed of the best of both.

In the realm of manners the table and the department thereof, are among the great revealers, probably because eating may be made either a pretty thing or an example of unadulterated ugliness, with all the grades between.

Even the table itself may be made to look coarse and repulsive, or a thing of refinement and attractiveness.

In achieving the latter it is to be remembered that, while certain rules in setting, etc., have been formulated, this has not been done arbitrarily, but simply to provide the greatest degree of comfort for everyone concerned. Thus it is that no rule is absolutely inflexible, different circumstances may always bring about a modification. For example, while it is perfectly permissible for an over-worked farm woman to substitute white oilcloth for linen during hot summer weather, linen is the rule, with the prime necessity that it be clean and well ironed. The better in quality the linen is, the better will be its gloss and general appearance.

In setting the table the first necessity is a "silence cloth," of any soft, thick, smooth material, to protect the table and prevent clatter. Upon this the cloth is placed, the dishes and cutlery.

For dinner the arrangement, for a plain table, is as given in our illustration, although if serving is to be done at the table the plates are usually placed, at the first of the meal, in a pile in front of the server. "Service plates,"—useless things they are—usually seen only in very formal houses. If hot meals and vegetables are to be served the plates should be warm.

Also another deviation from the arrangement shown in the picture is permissible: the large dinner knife and fork may be—in fact are usually—placed at the outside instead of next the plate, this is a mere matter of taste. For dinner, bread and butter plates are sometimes omitted, never for luncheon or "tea." Also, if the hostess pours the tea, the tea service may occupy her end of the table, the vegetable dishes being placed close to the one who is to serve the vegetable.

The centre of the table should be occupied by some flower decoration, placed on an embroidered doily; just a vase or rose-bowl of cut flowers will do, or a low fern in a pot. Large, fussy floral erections are no longer considered in good taste, as they interfere with the clear view across the table necessary when people are conversing.

If soup is served, the soup spoon is placed next to the dinner knife in the place most convenient for using first, as it must be, i. e., at the extreme outside,

if the dinner knife is farthest from the plate. The dessert spoon occupies the opposite side, as it is to be used last, or it may be placed crosswise at the inner edge of the plate. One point deserves special attention—the knives, forks and spoons should be absolutely and evenly at right angles to the edge of the table, the edges of the knives should turn next the plate, and the forks turned prongs up. Throwing them down in any old criss-cross way gives a table a very careless, untidy appearance. The water glass should be placed invariably at the point of the knife, and the bread-and-butter plate at the left of the plate.

Bread, butter, salt, pepper, pickles and catsup should be on the table at the beginning of the meal, and may remain, only the crumbs being brushed away before the dessert is brought in. For "tea" the bread and butter, cold meat (or substitute) and salad, are first on the table, and should be removed before the cake and fruit appear. A little side table or dinner wagon in a convenient place, with a white cheesecloth cover-all, will make this matter of second courses easy.

The tea or coffee may be on the table at the beginning of the meal—if the family prefer drink with the first course—or they may be brought on afterwards, with the second course, or even at the end of the meal. Up-to-date medical science now advocates moderate drinking throughout the meal, provided "sups" are not taken to moisten food in the mouth; in other words drinking should take place between bites. The idea is that it is only when in liquid form that the food in the stomach can be taken up and assimilated by the body.

By the use of a dinner-wagon, and systematic arrangement of dishes, most of the serving may be done at the table, with comparatively little running about, hence all the members of the family can sit down at once, the best way on a farm where serving-maids are not kept. For formal occasions, however, it may be better for one member of the family to assume the duties of waitress, as this permits the meal to go forward with less fear of confusion or friction.

Smiles.

Little Mrs. Bride had almost everything to learn about housekeeping, but she was so enthusiastic in her interest that every one was glad to help her.

"I have some particularly fine asparagus," the marketman told her one day, and he displayed a bunch for her admiration. "Picked not three hours ago," he added.

Mrs. Bride looked at it with unaffected amazement.

"Does it grow like that?" she asked, "I always supposed the cook braided the ends of it."

Not So Easy.—Here is a story of wounded boys have brought back from the front about Sir Douglas Haig.

Sir Douglas was, some few weeks ago, in a great hurry to get to a certain place. He found his car, but the chauffeur was missing. So Sir Douglas got in the car and drove off by himself. Then the driver appeared and saw the car disappearing in the distance.

"Graet Scot!" cried the driver, "there's 'Aig a-driving my car!"

"Well, get even with him," said a Tommy, standing by, "and go and fight one of 'is battles for him."—Tit-Bits.



Plain Table, Showing Correct Detail of Setting.

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Sydney Basic Slag

The British Government recognise the value of Basic Slag and are urging farmers to secure their requirements for season 1917-18 at once.

See extract from Glasgow Herald, published in Glasgow, Scotland, of date 14th August, 1917, as follows:

"There is likely to be a larger demand for Basic Slag than the greatest efforts of manufacturers will be able to supply. Farmers are urged by the Food Production Department to place orders with their usual merchants at once and to take the earliest possible delivery of their requirements for season 1917-18."

Canadian farmers should use Basic Slag as recommended by the British Government

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Current Events.

The Governor-General signed the Military Service Act in Toronto on August 28.

Upwards of 27,000 Canadian soldiers sent to the front are now in the various hospitals.

American Food Controller Hoover has sent a challenge to Canadian boys to outdo the German boys in production work, as the American boys are to be asked to do.

Earl Grey, former Governor-General of Canada, died on Aug. 29 at Howick House, Northumberland, England

Sir Robert Borden and Sir Wilfrid Laurier will each nominate one-half of the 24 members of the Board of selection to appoint one member of each local tribunal under the Military Service Act.

The Stars and Stripes are now flying beside the Tricolor at Verdun.

Lord Rhondda, Food Controller in Great Britain, is to take over the control of the entire provision trade in the British Isles.

At the State Council of Russia, which opened on August 26, representatives from all over Russia were present. The address of Premier Kerensky, who spoke for an hour and a half, urging adherence to the Allies and the cause of democracy, was received with great applause.

Last week President Wilson fixed the price-schedules for coal at the mines' mouth, named a maximum profit for jobbers, gave coal shipments for the Northwest U. S. right-of-way over all other freight movements, and appointed as Fuel Administrator Pres. H. A. Garfield of Williams College. These precautions will probably prevent coal speculators from running coal to prohibitive prices during next winter.

Bad weather with heavy rains has considerably halted operations on the west front during the week, although Gen. Haig's troops made some gains in the region of St. Quentin. The Canadians, under Gen. Currie, are still pounding away at Lens. . . . On the Austro-Italian front, in the face of terrible difficulties, inseparable from the mountainous character of the country, the Italians are still fighting magnificently, and have advanced somewhat beyond Gorizia. . . . But far to the North, the important port of Riga has been abandoned by the Russians, leaving the road to Petrograd open to Von Hindenburg's men. The distance between the two cities is only 350 miles. . . . In the far East there seems to be a combined attack on the part of Gen. Allenby in the Holy Land, Maude in Mesopotamia and the Russians in the Caucasus. On Aug. 31, the British, in the face of artillery and machine guns, drove back the combined Turk and German troops over 800 yards, near Gaza, in Palestine. It is thought that this may be the beginning of a considerable offensive.

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 August 24 to August 31: Mrs. Wm. L. Johnson, R. R. 5, Perth, Ont., \$5.00; Agnes Shaw, Caledonia, Ont., \$1.50; "Toronto", (Hope), \$2.00; "Scotia", London, Ont., \$1.00.

Amount previously acknowledged \$4,873.05

Total to August 31 \$4,882.55

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

Tom Parker's Frog Pond.

BY JOANNA NICHOLLS KYLE.

When the schoolboys found out that Tom Parker was keeping a pond full of frogs for pets, they gaped at him unmercifully. They missed him from their games, also, in which he had always been the ringleader. When the summer came, the boys met and talked the matter over, resolving to call upon him in a body and and remonstrate. Saturday was chosen for this visit. Tom saw them coming, but he was prepared.

It was Jim, his chum, who climbed over the fence and opened the attack.

"Hello, Tom, how're your cunning little pets?" he demanded.

"Fine and dandy," replied Tom heartily "How're your pigs?"

"All right, and I get at least ten cents apiece for 'em, too. What do your frogs bring?" asked Jim, laughing.

"Two dollars a dozen," said Tom soberly.

This speech produced a roar of laughter. "Look, boys!" said Sam. "He's got lanterns hung all round the pond. Do you light them up at night, Tom?"

"Sure thing," Tom could hold his own. "Oh, say, fellows, let's come to the frog concert. When does it begin and how much do the tickets cost, Tom?"

"Twenty-five cents admission all round," returned the proprietor of the pond with a grin. "You fellows think you're awful smart, but you come over that fence and I'll teach you more inside of five minutes than you ever dreamed of. When you go back to school next year, the teacher won't know you, you'll be so bright."

Thus invited, the whole posse scrambled over the fence and surrounded the pond with interest.

"Whew! What a lot of tadpoles!" exclaimed Jim, with sudden animation. "Going to use them for bait?"

"No," said Tom, "going to raise them to be frogs. See here!" and he led the way around the pond to a spot where he had placed a number of large stones in the marsh. "Watch those little chaps coming up to breathe. They have dropped off their tails now, and are growing legs."

"Oh, come, you can't make me believe that," remarked one incredulous guest.

"They do, for a fact. I'll soon convince you," and Tom picked up a specimen in the transition stage.

"Say, that's funny, all right."

"Now," continued Tom, "he is losing his gills with which he used to breathe water like a fish, and he is growing lungs to breathe air; getting to be amphibious, as the teacher calls it. They seem to be tender, just now, and lots of them die. I put those stones in for them to climb up on when they get ready."

"What do you feed 'em on? They are mighty fat."

"Oh, all kinds of insects. When they're little, they'll eat dead things, but when they get big they won't look at anything dead. They began to eat each other, and some of them starved. So I got these lanterns and lit them up at night. You ought to see the beetles and moths; never saw so many queer bugs in my life. I'm going to make a collection of some of them. Want to see me catch a frog?"

Tom was in his element now, surrounded by an admiring audience. He produced a bit of red rag and tied it firmly to the string of a fishing rod. "Don't need a hook," he explained, meanwhile. "Now watch 'em jump," and he dangled the bait alluringly over the marsh. "They just love anything bright-colored; think it is alive, I s'pose."

Very soon he caught the attention of a contemplative old frog, basking in the sun.

The frog leaped high in the air and caught the red cloth firmly in his mouth.

"He'd swing on there forever if I'd let him," exclaimed Tom, shaking the line to illustrate his assertion.

After Tom had shown the boys his collection of insects he found himself more popular than ever. The "bunch" determined to let him enjoy his fad in peace.

That fall Tom made several trips to town, which was about four miles distant, and each time he came home his face beamed with satisfaction.

Winter came, and Tom entertained Jim one day by letting him see his frogs bury themselves in the mud, preparatory to a long sleep of several months' duration.

"Why, there are just a few left. What have you done with 'em all?" asked Jim in surprise as he counted over the collection.

"Got rid of 'em. Had too many," answered Tom briefly.

"Wish you'd given me some."

"Fix up a place for 'em and I will", was the answer, "and I'll tell you a secret, too, if you won't let the other boys know."

And the two lads retired to Tom's room to have a confidential chat.

That was a hard winter, and even Tom knew that his father was having a pull to make ends meet, although he never talked much about his business. Tom had evidently inherited this taciturnity.

One evening as he came whistling into the house, he overheard a few words which made him grow suddenly silent.

"It's no use, Nancy." It was his father's voice that spoke. "I cannot meet that note by twenty dollars. And I don't know any one round here that's rich enough to lend it to me. The worst part is, it looks like I wasn't honest."

Tom entered the dining room quietly and slipped into his chair at the supper table. He was an only son, but that fact and the consequent indulgence he had received had not spoiled him; for he loved both parents dearly.

"Tom," said his father, suddenly turning toward the boy, "I'll have to drain that marsh, son. I'll need every foot of land next year for corn."

"All right, sir," and Tom got out his lesson books; but somehow, he could not study, for there was a conflict going on inside his breast. Presently he rose, lit a candle and went to his room, a little closet that opened into his parents' sleeping apartment. Stooping, he drew from under the bed a box in which he kept his clothes; and diving down to the bottom, brought out an old pocketbook, whose contents he spread upon the quilt and counted. Twenty-two crisp dollar bills! Oh, how he had coveted the possession of a bicycle, and soon he would be able to buy one! But then, there was dear old father. Tom had seen him gulp his supper down

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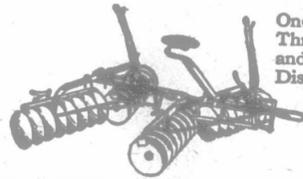
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and push away the dishes, and mother had eaten nothing, but had gone about clearing the table with a sad look on her face.

The victory was won. Tom gathered up his earnings, descended the stairs, extinguished the candle, and then he paused. His father had buried his face in his arms upon the table.

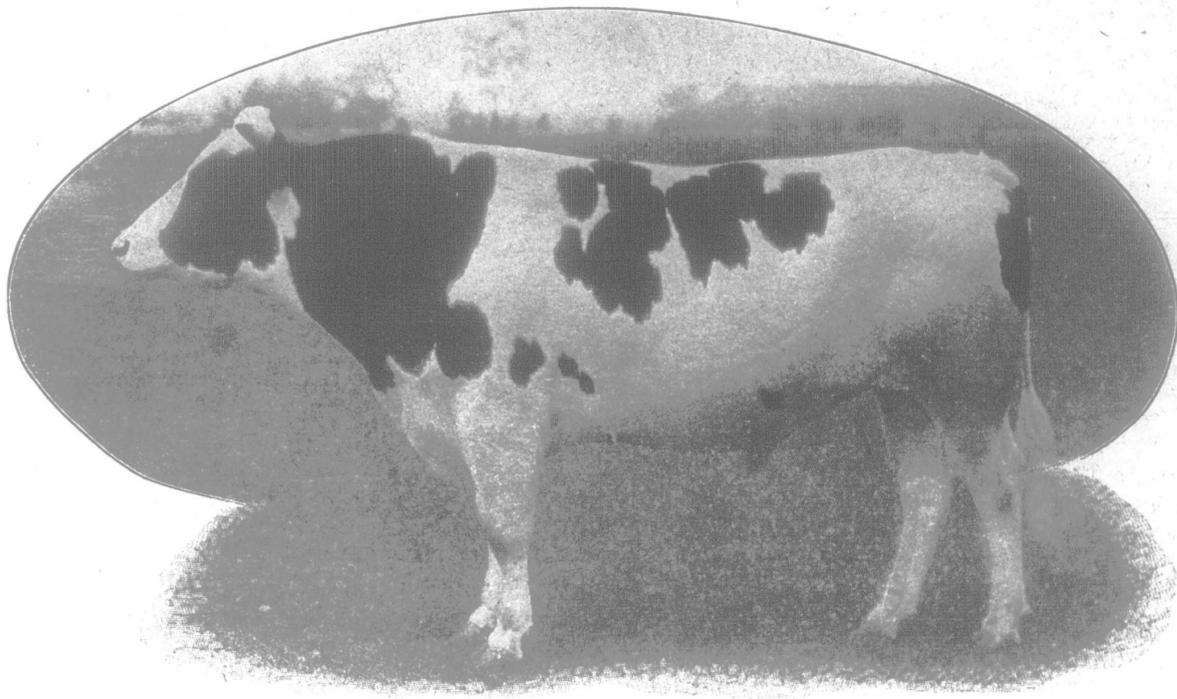
"Pa, I say, pa, you can meet that note," Tom laid the money upon his father's knee. "This is mine. I earned it. I've been saving up to buy a bicycle, but I don't want one now. You take it."

Mr. Parker stared at his son incredulously. "You earned all that money?"

"That's what, I got from my frog pond," Tom explained. "Do you remember when cousin John stopped here, last March, on his way back from Washington City? You know he had been to see about some salmon to stock his fish pond. Well, he left an old report of the Fish Commission when he went away, and I read it. It said there was a lot of money to be made selling frogs' legs. I didn't believe it all, so I went in town to one of the big wholesale dealers and asked him if it was true. He said yes, that folks up at the big hotels paid a good price for 'em, said he'd take all I could bring in. And the very finest frogs in the United States are found in Missouri, too. So I took that Government report and studied up all about how to make a pond and raise 'em. I've learned to dress 'em good, too, and if you'll let keep the marsh, I'll try to sell to a hotel direct, next year."

"My dear boy," said his father, grasping his hand, "you shall have that bicycle next year if such a thing is possible. You've saved me more to-night, son, than you can understand. As to the marsh, we'll enlarge the enclosure and go into the frog business. Tell you what, it came in handy this year."

Tom looked up at his mother. Her face was beaming with joy. It was the



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What Every Disabled Soldier Should Know.

The following, issued by the Military Hospitals Commission, 22 Vittoria St., Ottawa, will be read with particular satisfaction by those who have sons wounded at the front:

That there is no such word as "impossible" in the dictionary of the disabled soldier.

That his natural ambition to earn a good living can be fulfilled.

That he can either get rid of his disability or acquire a new ability to offset it.

That the whole object of doctors, nurses, and instructors, is to help him in doing that very thing.

That he must help them to help him.

That he will have the most careful and effectual treatment known to science.

That interesting and useful occupations form a most valuable part of the treatment in convalescent hospitals and sanatoria.

That if he cannot carry out his first duty by rejoining his comrades at the front, and if there is no light duty for him with the Canadian forces overseas, he is taken home to Canada, as soon as his condition and the shipping facilities make this possible.

That his strength and earning capacity will be restored there to the highest degree possible, through the Military hospitals commission.

That if he requires an artificial limb or kindred appliance it will be supplied free.

That every man disabled by service will receive a pension or gratuity in proportion to his disability.

That his pension cannot be reduced by his undertaking work or perfecting himself in some form of industry.

That his pay and allowances continue till he is cured or till his pension begins.

That an extra three months' pay, field pay, and separation allowance when there are dependents receiving such allowance, will be paid to all men returned from overseas and honorably discharged after at least six months' service,—with certain exceptions, such as members of the Permanent Force and Federal or Provincial Civil Service who can step right back into their old positions.

That if his disability prevents him from returning to his old work he will receive free training for a new occupation.

That full consideration is given to his own capacity and desires when a new occupation has to be chosen.

That his own will-power and determination will enable him to succeed, both in the training and in the occupation afterwards.

That his maintenance and that of his family will be paid for during the training he may receive after discharge, and for a month longer.

That neither his treatment nor his training will cost him a cent.

That his home Province has a special commission to assist him in finding employment on discharge.

That hundreds of towns and villages have committees, associations, and clubs, to welcome him on arrival, and to help in securing a position for him.

That the Dominion and Provincial Governments, the municipal authorities, and all sorts of employers, give the returned soldier preference in filling vacant positions.

That the returned soldier wishing to take up land and farm it, will be helped to do so, under Federal and other settlement schemes.

That the military hospitals commission exists to carry out his restoration and training in Canada.

That the Board of Pension Commissioners exists to distribute the pensions provided by his country for him and his dependents.

That the Military Hospitals Commission and the Board of Pension Commissioners are in the position of trustees, appointed for his benefit, and representing the whole people of Canada.

That, therefore, he should write direct to the Commission or the Board if he needs advice or help.

Canadians are unanimously resolved that every returned soldier shall have a full opportunity to succeed. When that opportunity is put within his reach, his success will depend on his own good sense in seizing and using it.

The Windrow

"Camouflage" is an ancient art. We used to achieve it with a big geography when we wanted to read "Peck's Bad Boy" in school.—Kansas City Star.

The first recruit in Canada after England declared war against Germany, was Colonel Guthrie of the 236th Battalion of Highlanders. Within fifteen minutes he had offered his services for the front. Since then he has received twenty-two wounds, but he is now with the "MacLean kilties" on a recruiting trip through the United States.

The *Literary Digest* draws attention to the fact that the manufacturers of pianos, victrolas, automobiles, typewriters, cash-registers, sewing-machines and cotton and linen materials will be drawn upon heavily in the near future for work for the manufacture of airplanes.

Another poet, Francis Ledwidge, of Meath, Ireland, met his death in Flanders on July 31st. Beginning life as a farm laborer, like Burns he wrote at odd moments, and was finally discovered by Lord Dunsany. Last fall his first book of poems, "Songs of the Fields", was published. He was but 26 years of age.

Many thousands of fruit-trees which were girdled by the Germans before their retreat from portions of France, were at once "doctored" and bandaged in such a way that their lives and usefulness have been preserved. Even trees that were almost severed and lying on the ground at the side have been treated scientifically and grafted back on the stumps again in such a way that they are again in full leaf. Surgery at the front is not altogether confined to humans.

The raising of Belgian hares for meat is being recommended for war-time. The meat is highly nutritious, and the rabbits are easily kept, eating grass, lawn-cuttings and green vegetation of any kind. When well fed they are marketable when three or four months old.

The first Russian woman to fight in the war was Apollovna Isoltsev, who, in 1914 was accepted as a volunteer in a regiment commanded by her father, and was awarded the Cross of St. George of the third class for discovering a telephone which the enemy had hidden in a loft and was using for the purpose of his intelligence department. Since then until the formation of the "Battalion of Death" this year, many women slipped into the ranks and acquitted themselves with credit. Madame Vera Botchkarev, leader of the Battalion of Death, is the widow of a colonel. At the beginning of the war she enlisted as a private. She has been six times wounded and has received several decorations. Other women's battalions are now being formed.

"Little by little the Russian Government is gaining in power. We took to Russia a message of faith in democracy. We return to repeat it. Here, as there, German propaganda is seeking to sap the strength of democracy. Here, as in Russia, German money is seeking to undermine the press and policemen and to establish a structure of treason. Here, as there, we find weak sentimentalists who lend themselves to the most terrible enemy of peace and justice and humanity since the fall of Genghis Khan. Here, and there, too, we see men who proclaim their patriotism and sell their country. But here, as in Russia, the long-suffering forces of democracy are gathering to take the power into their own hands. And when they act let these men beware.—"Elihu Root, Head of the American Mission to Russia.

"Have you tried blasting it?" asked the chaplain of the two perspiring Tommies who were digging a dug-out. "You just ask 'Arry, sir," said one, meaningly.

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.]

A friend said the other day, "I have come to the conclusion that it is quite as necessary to be interesting as to be good." She often says pungent things—this friend—things with a snap, and tang and aroma about them, that make you glance up at her suddenly with the light of awakening in your eyes. You don't always, nor even very often do that, when with people. Usually the conversational road is such a dead level that you are never startled, never aroused out of yourself, never even challenged. Perhaps you yourself have fallen into the way of keeping all your best thoughts back because thoughts do not appear to be "the thing". But I don't believe this is the right way. Why shouldn't we talk thoughts rather than odds and ends about folk and neighborhood events? Why shouldn't we learn to listen to differing opinions with courtesy and with an open mind, even when we cannot immediately, or even ultimately, agree?

The friend of whom I have spoken seems to get along all right, with opinions ever at the tip of her tongue, but perhaps that is because she does not try to keep conversation always "on the heavy"; she lets it be natural, but if, in the running order of things, an opinion comes to her she expresses it. She is always spontaneous. She never tries to be clever. She is just an honest thinker, who is so earnest in her thought that every now then it simply must come to the top.

"I have come to the conclusion that it is just as necessary to be interesting as to be good," she said, and I have just been thinking how true that really is. To be concrete: I know two sisters, one of whom is truly, so far as anyone can see, altogether good. She always says the nice thing about people, she is absolutely unselfish, she goes about doing good, she never gets in a temper, never sulks, never varies. But for all that she is hopelessly tiresome. After an hour with her you want to fly to the ends of the earth, to Mars, Jupiter, anywhere where there is a little interest. . . . Her sister isn't nearly so pretty—to begin with. She is not so self-sacrificing. One could very well imagine her in a good hot temper, should occasion present itself. But she is interesting. She has opinions and is good-naturedly witty. She reads broadly and as a consequence is quite unorthodox in many things, but is all the way through alive. She is far-seeing, and if you have a very bad fault, you know she knows it too. Yet the big things of the world interest her most, world-events and the possible trends which they are following, world-thoughts and the ways by which they are leading. She is not, in short, shut up by the four walls of her home nor the borders of the neighborhood. She is too big to be provincial. One could not mention "narrow" in the same breath with her. As a consequence she is always interesting. One is glad to meet her, day after day, and eager to hear what she has to say. She is a general favorite, for she never, by any chance, bores,—and what so deadly as boredom?

And so, thinking of these two, I know that my friend is right. "It is just as necessary to be interesting as to be good." To be interesting?—Probably it is not possible for each of us to be interesting to everybody else—tastes differ so—but to be interesting to many people surely it is only necessary to be broadly interested, to keep alive, to keep steadily climbing past the small spot which already we occupy, and so keep our horizon constantly widening. To have many interests and to be prose in none. To be ready to talk on many subjects, and, above all, ready to listen intelligently on any; there is no one so popular as the good listener.

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L.M. Appleford, 27 Holton Ave. S., Hamilton

An old man said last night: "My life has taught me this: that the more things we interest ourselves in the happier we are." It's an easy plan. True, the scientist may find that he must absorb himself chiefly in one subject, but for the great majority of us there are so many things to which we may reach out without harming in the least our life-work, even, perhaps, helping it thereby. Farming, gardening, flowers, poultry, forestry, friends, books, current events, nature, education, neighborhood clubs, local flower-shows—not one of these is impossible to any rural district, to say nothing of the exercise of especial individual talent. The list is not cramped.

I was pleased to receive, not long ago, the letter which appeared in these columns asking for the address of a picture-firm that issues prints of paintings by the world's best artists only. It is no unimportant matter, this of adorning the walls of our homes, especially where there are children. Pictures as well as books and people exercise an effect on character.

Recognizing the truth of this the people of Toronto are establishing a children's department at the new galleries connected with The Grange, the fine old home that Goldwin Smith bequeathed to the city for an art gallery and museum. The step is a good one, and will do much to offset the effect of the hideous "Mutt and Jeff," "Mrs. Jiggs", and other vulgarities in some of the papers. Ugliness and silliness are never elevating. Children should never, if possible, be permitted to see them. Why should they, when there are so many beautiful and refining things in the world?

Have you ever noticed how very unobservant some people are?—All of us, perhaps, in some things, and a few in almost everything. As an example: you would be surprised if you knew how many people address me, when writing to this column, as "Dear Julia".

Once upon a time, you know, there was a writer who contributed a series of articles to an English paper over the pen-name *Junius*. It is true the "Letters" were chiefly on political subjects, but it was never found out, for certain, who the writer was. Over forty persons, among whom were Lord Chatham, Henry Grattan and Edmund Burke, were given credit for (or accused of, according to one's view) being "Junius", but perhaps the arguments which place the responsibility upon Sir Philip Francis are the strongest.

It was this anonymity that occurred to me when casting about for a pen-name with which to sign these columns,



FARM FOR SALE—100 ACRES OF SPLENDID land in the best farming and grazing sections in the county of Middlesex, Ont. About 90 acres cleared, balance good hard wood. Midway between Ailsa Craig and Parkhill, on the leading road to London. Free mail delivery. Apply to Miss Josephine Wyllie, Ailsa Craig, Ont.

FOR SALE OR RENT, TWO HUNDRED AND FIFTY ACRES. Fifty miles from Toronto, good buildings, large bush. Jno. Clark, Cedar Brae, Ont.

FARM FOR SALE—CONTAINING NINETY-SIX acres, six acres bush, balance in high state of cultivation and fertility; being used as a stock farm for nearly forty years, well known as Maple Grove Stock Farm. Situated in the dairy district of Oxford Co., East Zorra Twp., which is the finest section of country in Ontario. Buildings are practically new and fill all requirements. Drilled well at buildings and never-failing spring brook. If interested write H. Bollert, Tavistock, Ontario, R. R. No. 1.

GOOD 150 ACRE FARM FOR SALE IN KENT County, in the peach, tobacco, and early vegetable belt, near village, lake, summer resort, electric railway; \$80 per acre, terms easy. Apply to Box S, Farmer's Advocate, London.

MEN WANTED FOR SHIPYARD. ALL classes of skilled help, also common labour. Good wages paid and excellent prospects for advancement. Apply by letter, stating wages and full particulars to: The Collingwood Ship-building Company, Limited, Collingwood, Ont.

ON JULY 15, HORACE NORTHAGE, A HOME boy, left on a Massey Silver Ribbon wheel. 15 years old; weighs 100 lbs; dark complexion. A reddish-purple birth mark on his temple, very noticeable. Any information would be very acceptable. Address: Russell Simon, Ruscomb Stn., Ont.

PURE-BRED SCOTCH COLLIE PUPS FOR sale. R. G. Rose, Glanworth, Ont.

SIBERIAN FUR FARM, HAMILTON, CANADA—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.

250-ACRE FARM FOR SALE—TWO MILES from village and canning factory and G. T. R. Rural mail delivery. Thirty 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. Sixty-nine acres plowed for fall wheat. Will sell stock and implements if desired. If interested, apply to Peter Schilz, R.R. 1, Vittoria, Norfolk Co., Ont.

2 EXPERIENCED MEN WANTED FOR dairy work. Single men preferred. Military Hospital Commission Industries, Guelph, Ont.

50-ACRE FARM FOR SALE, YORK COUNTY, Ontario. Good buildings, spring creek, orchard, and excellent soil. Apply to Wm. M. Carr, R. R. 2, King P.O.

"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)

and so it seemed easy to turn to the feminine, "Junia", a sufficient revelation, surely, to those folk who will persist in thinking that the writer of these weekly chit-chats is a man.

"Junia"—not "Julia", nor is "Puck" of the Beaver Circle, "Pluck", as so many of the children call him, evidently with the bugaboo of disastrous examination results lurking in their subconsciousness.

The power of accurate observation is a very useful one. Training in it should not be neglected, for it may be brought to bear upon so many of the details of life.

The new fall suits are already in the shop windows. Most of them show rather long coats, some of them with pleats and many with belts, but the skirts are much straighter than those of last season, and will require less cloth, a consideration in this war-time. The sleeves, too, are quite close-fitting, from shoulder to waist. With them may be worn a waist of silk, organdie, voile, or Georgette crepe. Of these silk is the most advisable for fall and winter, as it permits the wearing of heavier undergarments, the only kind that the majority of women can keep to with safety in cold weather.

An Unusual Query.

Dear Junia.—As I am a new comer I shall make my note as brief as possible I, like all the rest have come to you for help. Please kindly tell me to where and whom shall I apply, so that I may become an actress for the movies; I shall be very grateful toward you.

Norfolk Co., Ont. "CLARA BELL."
A movie actress? I haven't the wildest idea. Apply to the manager of your nearest theatre for information. As it is very difficult to act well for the movies I understand that all of the worth-while parts are kept for stage professionals.

Cleaning A Rattan Cradle.

For "An Old Subscriber," Oxford Co., Ont. *Scientific American* gives the following method of cleaning wicker articles, etc.: Make a solution of 1 part chloride of lime with 20 parts of water. Mix well until no crystals remain, then let stand, and run off the clear liquid into a wooden vessel. Swab the article with this very thoroughly for about half an hour (small articles may be left soaking in it) then wash off with hydrochloric acid and water (1 to 20). Finally wash in plenty of clear water and dry in a cool shady place.

If not too much soiled salt and water may be used. Never use soap, as it yellows the fibre.

Flies on Plants.

Dear Junia.—Could you advise me how to rid my house of small flies, seemingly to originate from a small white worm in the earth. I have tried soapsuds, ammonia water, also soot water, but with no satisfactory results. If they do disappear they are back again in a few days. For potting I use sand, leaf mould, and manure. What is the cause and what could I do in order to prevent this pest? Would like to know before potting the slips, etc., for winter.

Middlesex Co., Ont. E. T.
Better report the plants, washing the roots well and planting again in soil which has been baked to remove all insect life. Insects which seem confined to the foliage only are usually removed by spraying with one of the tobacco mixtures sold for the purpose by any dealer in plant supplies.

The Cookery Column.

Rosy Apples.—Cook 8 rather large red apples in the oven until soft, having them in a dish with water to cover half the apples, and turning them frequently. Remove skins very carefully, to leave some of the red color, and arrange on a serving dish. To the liquor remaining in the pan add 1 cup sugar, grated rind of half a lemon, juice of one orange. Bring to boiling point and let simmer until reduced to 1 cupful. Serve with whipped cream and sugar, with or without vanilla flavoring.

Muffins.—Beat together 1 tablespoon butter and 1 tablespoon sugar, then beat up 2 eggs and add them gradually. Next add 1 cup milk, and last of all 2 cups flour sifted with 2 teaspoons baking powder.

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Mix well as quickly as possible and put in warm buttered muffin-pans. Bake in a moderate oven for 20 minutes. This quantity will make 12 muffins.

Grape Catsup.—Five lbs. ripe grapes boiled and put through a colander; 3 lbs. brown sugar, 1 pint vinegar, 2 teaspoons salt, 2 teaspoons cinnamon, 2 of cloves and 2 of allspice, 1 level tablespoon pepper. Boil until thick enough and seal in bottles.

Sour Cream Salad Dressing.—To 1 cup thick sour cream add ¼ teaspoon each of salt, paprika and mustard, and 1 tablespoon lemon juice or vinegar. Beat until thick and light with an egg-beater.

Elderberry Pickles.—Three quarts elderberries, 3 onions chopped fine, 2 teaspoons whole cloves, 2 tablespoons ground ginger, 1½ cups brown sugar, 2 cups seeded raisins, ½ teaspoon red pepper, ½ teaspoon mace, 2 teaspoons mustard seed, 2 tablespoons salt, 2½ cups vinegar. Cook until thick and put in sterilized jars.

Plum or Grape Marmalade.—Three pints grape or plum pulp cooked to a mush and pressed through a colander, 1 pint of the skins (plum skins shredded), 2 lbs. sugar. May add raisins or chopped nuts if liked. Cook slowly until thick.

Green Tomato Preserve.—Three quarts green tomatoes sliced thin, 3 lemons sliced thin and cooked in 1½ cups water, sugar as liked. Simmer until thick.

Chili Sauce.—Take 18 ripe tomatoes, 3 green peppers, 3 onions, 1 cup sugar, 1 teaspoon cinnamon, 4 teaspoons salt, 2½ cups vinegar, 1 teaspoon ground allspice, 1 teaspoon ground cloves. Peel and cut tomatoes, add the chopped peppers (without seeds) and the onions also chopped fine. Put in a kettle with remaining ingredients, bring slowly to boiling point and cook until thick, very slowly.

Soft Gingerbread.—One beaten egg, 2 heaping tablespoons sugar, 3 tablespoons melted butter, 1 cup molasses, 1 teaspoon ginger, 1 teaspoon cinnamon, 1 cup boiling water, 2½ cups flour, 1 teaspoon soda. Beat the egg, add sugar, butter, molasses, then the flour sifted with the spices, and last of all the soda dissolved in the boiling water. Bake in a steady oven, not too hot.

Crab-Apple Catsup.—Wash 4 quarts crabapples and cook in a little water, and press through a colander. Add to the pulp 3 pints sugar, 2 quarts vinegar, 2 teaspoons cinnamon, 1 teaspoon cloves, 1 level tablespoon pepper, 2 level tablespoons salt. Cook slowly until thick. Never use tin for cooking any kind of fruit or pickles. Graniteware should be used, even a granite colander, as the touch of tin ruins the flavor of anything that has acid in it.

Watermelon Preserves.—The rind should be preserved as soon as the melon has been used, as it will sour in hot weather, unless it is kept in a very cold place. Take two pounds of the rind with the peel and all the pink flesh removed. Cut into small squares, and soak overnight in a solution of two ounces full strength lime water (which can be procured at a druggist's) added to a gallon of pure water. Alum may be used instead of the lime water. In the morning take the rind out of the solution, soak in clear water, drain well, then put on in rapidly boiling water for ten minutes.

Make a syrup of six cups of sugar to three quarts of water. Add the juice of one lemon and slice in half another. Add the rind slowly to the boiling syrup and cook until the melon is tender and transparent. Remove the kettle from the stove and allow the contents to cool. After cooling, arrange the pieces of rind in the jars, and pour boiling hot syrup of medium density to fill. Partially tighten the tops of the jars, sterilize as for other fruits in boiling water for forty minutes. Remove the jars, tighten the tops, and place to cool, but not in a draught. Some persons like the flavor of ginger with watermelon. To give this flavor, cook the rind—after the preliminary soaking, and clearing, and par-boiling—in a syrup made in the proportion of a pound and a half of sugar, a quart of water, and pint of strong ginger tea strained. When the rind is tender and transparent, place in the jars, pour on gingered syrup to fill, and sterilize.

The Scrap Bag.
Stale Bread.

A writer in Pictorial Review says that stale bread may be dried, put in a paper bag and rolled fine, or put through a

Penmans Hosiery

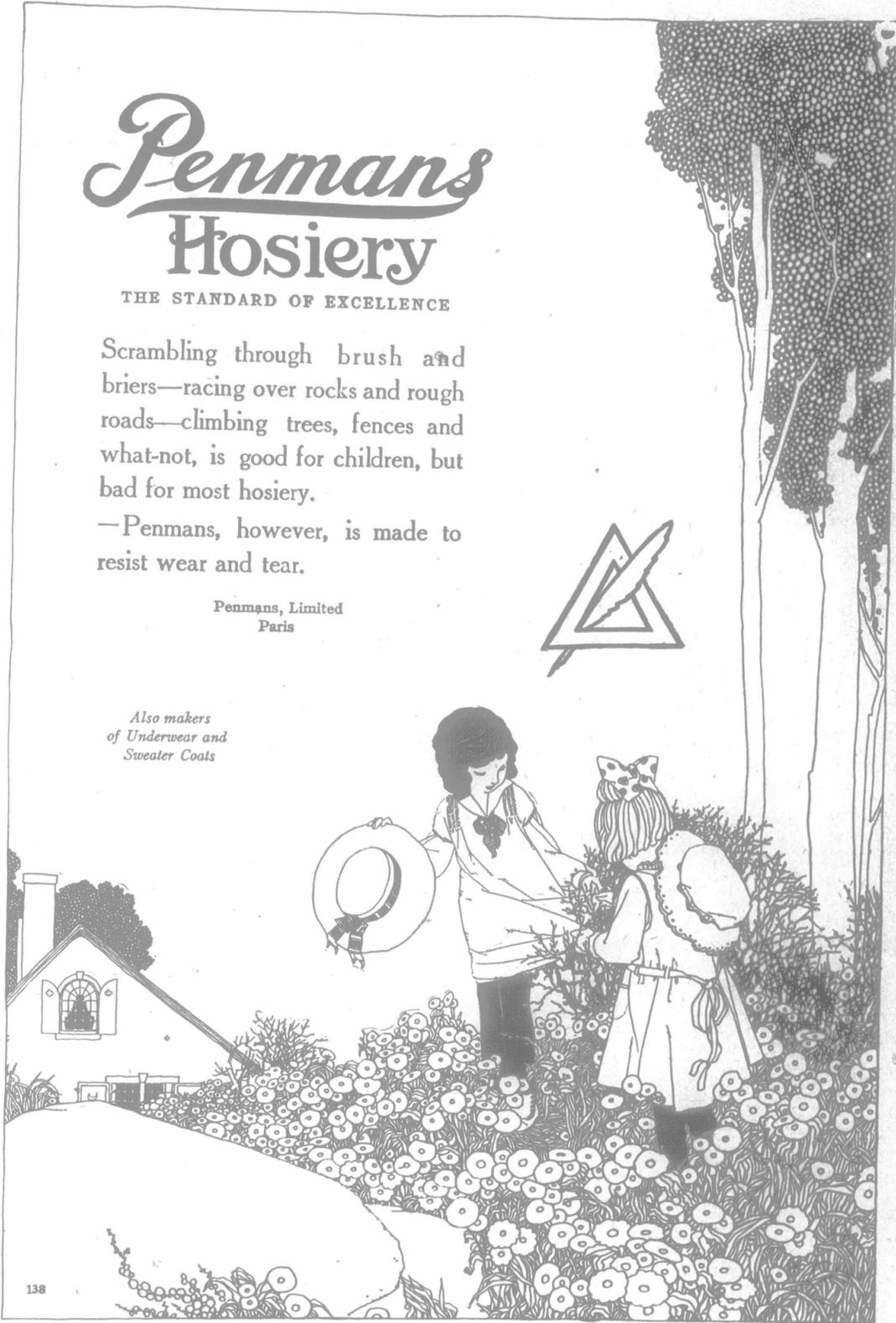
THE STANDARD OF EXCELLENCE

Scrambling through brush and briers—racing over rocks and rough roads—climbing trees, fences and what-not, is good for children, but bad for most hosiery.

—Penmans, however, is made to resist wear and tear.

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A Real Fence—Not Netting
Strongly made and closely spaced—making it a complete barrier against large animals as well as small poultry. Top and bottom wires No. 9—intermediates No. 12 wire—made by the Open Hearth process which time and other tests have proven to be the best. Send for catalog. Ask about our farm and ornamental fencing. Agents nearly everywhere. Agents wanted in unassigned territory.
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Sores or Wounds, Felons, Exterior Cancers, Burns,
Bells, Carbuncles and all Swellings where an outward
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EQUAL.** Removes the soreness—strengthens the muscles.
Price \$1.50 per bottle. Sold by druggists or sent
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The LAWRENCE-WILLIAMS COMPANY, Toronto, Can.

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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 ten-
der corn or painful callus and
instantly the soreness disap-
pears, 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 sore-
ness, 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!

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Fertilizers** Yield
Big
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Now is the time to import. Prospects were never
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Victor of Glencairn. All are of service-
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\$1.00 bottles FREE to horsemen who give the
Wonder a trial. Guaranteed for Colic, Inflammation
of Lungs, Bowels, Kidneys, Fevers and Dis-
tempers, etc. Send 25c. for mailing, packing, etc.
Agents wanted. Write address plainly.
Dr. Bell, V. S., Kingston, Ont.

Beaver Hill Aberdeen-Angus Cows
with calves at foot and bred again. Bulls of ser-
viceable age, females all ages, a few Shearling Ox-
ford Down ram lambs.

Alex. McKinney, R. R. No. 1, Erin, Ont.

food-chopper, and worked into the dough
on next baking day in the proportion of
one cup crumbs to three of flour. The
experiment is worth trying.

Left-over Porridge.

Left-over porridge need not be wasted.
Keep it covered in a cool place and add
to the boiling porridge next morning.
A little of it may be added to muffin-
batter, and it may even be used up in
making griddle cakes.

A Cleaning Liquid.

Grate raw potatoes and add a pint of
water to a pint of pulp. Strain and let
settle. Pour off the clear liquid. With
this sponge the fabric until spots are re-
moved; rinse in tepid water and press
with a warm iron on the wrong side. It
is said that this will clean delicate fabrics
without injury.

Brass Knobs on Bedstead.

To clean brass knobs on bedsteads
unscrew them and boil in vinegar, then
polish with a soft cloth or chamois.

For Mince Pies, Etc.

Be sure to put up a few bottles of fruit
juice cooked to a syrup with sugar. Use
as a flavoring for pudding sauce and to add
to mince meat. The juice left in sealers
of fruit may be boiled down for this.

Remove Sewing Machine Oil.

Wet the spots made by sewing-machine
oil with turpentine and wash out with
cold water and white soap.

Children's Economy Clothes.

Black leggings for the little tots can
be quickly made from the tops of ladies'
hose after the feet give out. Each
stocking makes a leg; cut them the de-
sired length, saving the top hem for a
drawstring. Slit each from the top the
length of the seam desired for the seat and
join the edges.

Put in the drawstring and the work is
done. If desired these little "tights" may
be opened at the sides and put on to bands,
but if used only for outdoor play the
drawstring is quite satisfactory. These
little garments are neat and serviceable
and save a great deal in washing.

Stockings which button to a waist,
thus doing away with the hose-supporter,
are a great convenience and give the little
girl a tidiness that the shorter stockings
do not. They are much more expensive
than the ordinary kind.

A very good imitation can be made by
adding the tops from discarded stockings.
The seam, coming above the knee, is not
in evidence.—Sel.

Flavoring for Winter.

Dry and pound celery leaves and keep
in jars or bottles for flavoring soups and
gravies next winter. The same thing
should be done with parsley, sage, sum-
mer savory, thyme, and mint (to be
mixed with vinegar). Label all the jars
and keep in a dark, dry place in the
pantry.

A Few Diet Items.

A dietician gives the following notes
in regard to common articles of diet:

All cereal foods are nourishing, espe-
cially corn, which is a great builder of
tissue.

Oatmeal should never be eaten by the
indoor worker. Only those who do out-
door, laborious work can digest it; even
then if they are in any way inclined to
dyspepsia or a sour stomach, oats in any
form should never be eaten.

Boston baked beans should not be
eaten more than once a week. This is
also true of dried peas and peanuts.

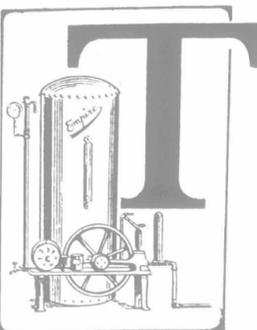
The peanut is not so bad in itself,
but it is the thin hull which is wrapped
closely about the kernel that is poison-
ous to the majority of people.

Buckwheat also should be barred as a
daily diet.

Meals should always be regularly eaten,
as nearly as possible at the same time each
day.

There are some who digest their food
more quickly than others and when they
feel a "faint feeling" in the afternoon,
a cracker and a cup of weak tea will be
sufficient until the next meal. This may
also be taken on retiring.

Running Water for Country Homes



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pump and storage
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knows, horses when being hard worked, are so
troubled. Horses equipped with "Ventiplex Pads"
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Missis, 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 younger bulls and several choice cows and heifers.

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We are offering 3 extra choice Scotch bulls, belonging to the Claret and Roan Lady families. Low set,
thick, fleshy fellows by that great sire, Escana Ringleader, first-prize bull at Toronto and London
Fairs. Write your wants or come and see them. **F. W. EWING, R. R. No. 1, Elora, Ont.**

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bulls from 10 t
rams and ewes.

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Choice young c
the best dual-p
Scotch breeding

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Kitchener, Ontario

Model "Princess" \$135



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Yet your best horse is just as liable to develop a Spavin, Ringbone, Splint, Curb or lameness as your poorest!

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has saved many thousands of dollars in horse flesh by entirely curing these ailments.

Ed. Ristone, Jr., Haliburton, Ont., writes:
"I have been a user of your Kendall's Spavin Cure for about 20 years, with good results. Could you supply me with your Treatise on the Horse? Don't take chances with your horses. Keep a bottle of Kendall's handy, \$1—6 for \$5. Our book, 'Treatise on the Horse,' free at druggists' or Dr. B. J. KENDALL CO., Enosburg Falls, Vt. 119

GET THIS ATHLETIC BOOK

FREE! FREE! FREE!!!

Wonderful book on wrestling. We can teach you by mail to be an expert wrestler. Learn from the actual world's champions, by mail.

Frank Gotch, Farmer Burns

Know self-defense and jiu-jitsu. Be able to handle strong men with ease. Quickly learned at home. Free book. Write now—state age. Farmer Burns School of Wrestling, 1016 Kempe Bldg., Omaha, Neb.

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

Brownlee Shorthorns. Offers a choice lot of young bulls, ranging in ages up to nine months and sired by the Nonpareil bull, Royal Saxon. See these before buying elsewhere. Could also spare a few females. Douglas Brown, Bright, Ont., R. R. 3. Ayr Station, C. P. R.

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, Ontario

The quantity of food taken will depend largely upon the age, temperament and physical condition of the individual.

Individuals over 40 years, who are inclined to be fleshy and full-blooded, or those running a high blood pressure, should eat sparingly on account of danger of arterio sclerosis (hardening of the arteries) kidney and liver diseases.

The young and those who are nervous should eat plenty of nourishing food. All stimulants in the form of alcohol should be avoided by young and old.

Community Kitchens.

In the United States, this year, "community kitchens" have become quite popular for canning purposes. Sheds and other unused buildings were fitted up with tables and cooking apparatus, not a difficult matter when oil-stoves, etc., can be secured, and the women have been working in successive groups. Money was pooled to buy all the apparatus necessary, the one set sufficing for each group in turn, and sometimes it was paid for by sale of the canned goods.

Terrible Forest Fires From Trifling Causes.

A man dropped a lighted match on the shore of Kalamalka Lake, British Columbia, on July 8th last. Within an hour a hot fire was racing through the underbrush. For three weeks after that there raged a series of forest fires, defying the organized efforts of hundreds of men.

At one time 26 fire fighters were ringed about with flames while their relatives, shut off from them and helpless to aid, awaited news in terrorized suspense. Only after severe suffering from exhaustion, thirst and hunger did the band of workers force their way through to safety.

That experience is a big price to pay for one person's foolish act in handling matches in a forest. The court fined the careless man \$50, but that does not help the province to bear the enormous loss.

One lighted match dropped on one inch of inflammable ground expanded into fifteen miles of ruin.

In the Spruce Valley fire of British Columbia of the same month, eleven men lost their lives, most of them tortured to death as they struggled over the mountain tops. The fuse to that disaster was supplied by a small piece of lighted tobacco carelessly thrown on the grassy floor of a tent.

Ninety out of a hundred tragic holocausts could be avoided if every Canadian camper and fisherman kept vigilant watch on his own pair of hands, and every settler kept a tight rein on his clearing fires. It does not cost five cents or five minutes to put out a camp fire or a cigarette or a match, but it costs the people of Canada four or five million dollars a year to partially overtake the timber damage caused by runaway flames.

Suggestions on Saving.

Following are suggestions put forth by Hon. W. J. Hanna, Canadian Food Controller: 1. Use perishable foods. Save garden truck that has been produced so abundantly this summer. Preserve, dry, can and store.

2. Eat more fish.

3. Substitute other cereals for wheat products—cornmeal, buckwheat flour, rice flour, and above all oatmeal.

4. Don't throw good food into the garbage can; \$50,000,000 is wasted every year in this country by carelessness in the kitchens.

5. Preach once more the good old-fashioned gospel of the clean plate. Do not let children waste food at their meals. Do not waste it yourself.

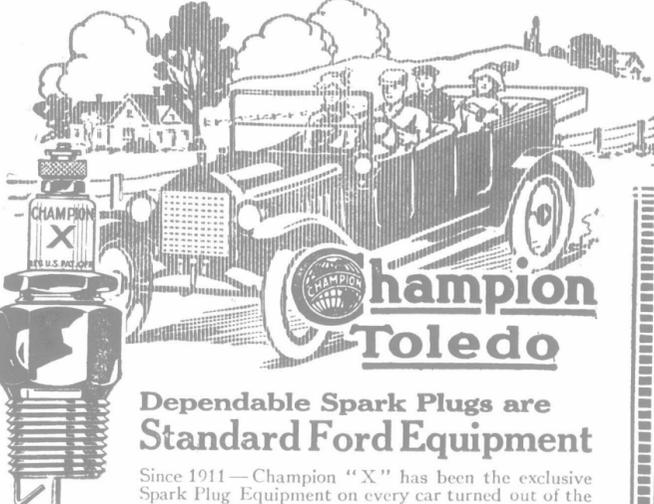
6. Organize. Various women's organizations are already active. Their leaders will tell you what to do. Get in touch with the workers in your own district.

Questions and Answers.
Miscellaneous.

Mortgage Discharge.

A had a mortgage on B's property. B pays the mortgage off. Who has to get the mortgage discharge, A or B, and who has to pay for it? J. H. C.

Ans.—B.



Champion Toledo

Dependable Spark Plugs are Standard Ford Equipment

Since 1911—Champion "X" has been the exclusive Spark Plug Equipment on every car turned out of the enormous Ford factory.

Ford Engineers selected it because of its proved ability to give perfect service under the severest road conditions—remember this when replacing the plugs in your Ford Motor.

Dealers everywhere sell guaranteed Champion plugs for Fords and all other makes of cars, gas engines or tractors. Look for "Champion" on the porcelain.

The Champion guarantee—"Complete satisfaction to the user—free repair—Replacement or Money Back."

Champion Spark Plug Co. of Canada, Limited
Windsor, Ontario

Champion "X" for Ford Cars Price 75c

NICHOLSON'S SHORTHORNS

Herd headed by "Best Boy" = 85552 =, and "Browdale Winner" = 106217 =. Bulls and females for sale. Visitors always welcome to this herd of long-established reputation.

R. & S. NICHOLSON PARKHILL, R. NO. 2, ONTARIO

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.

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.

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.

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., Brooklin, 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.

Maple Shade Farm—SHORTHORNS

An importation consisting of forty-three head now in quarantine will be home about September 30th.

Myrtle, C.P.R., Brooklin, G.T.R., Brooklin, C.N.R. Will. A. Dryden, Brooklin, Ontario Co.

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. Pettitt, Freeman, Ont.

Welland District Shorthorn Breeders' Club

are still offering young bulls of serviceable age, and a few breeding females.

Chas. Gainer, Secretary, Box 607, Welland, Ont. A. E. Howell, President, Fenwick, Ont.

**Only "Canuck"
Could Have Done It**

"—birds in full feather—flying high—and if I hadn't been sure of the load I never would have tried the shot. Made a double—the deep penetration of the Canuck Shells did it."

Canuck Shot Shells

are dependable. Dominion—the only ammunition Made in Canada—is sold by all dealers and backed by the guarantee of the big "D" trade-mark.

**Dominion Cartridge Co.,
Limited
Montreal**

Ontario Crop Statistics.

The following statistics of the principal field crops of Ontario for 1917 show the acreage as compiled from individual returns made by farmers to the Ontario Bureau of Industries, and the yields as estimated by a large and experienced staff of correspondents who gave probable yields according to conditions on August 10th.

Fall Wheat.—585,946 acres will produce 13,548,267 bushels or 23.1 per acre as against 704,867 acres, 14,942,050 bushels or 21.2 in 1916, and 24,737,011 bushels in 1915. The annual average for the 35 years, 1882-1916, was 21.3.

Spring Wheat.—182,957 acres, 3,879,954 bushels or 21.2 per acre as against 144,305 acres, 2,213,961 bushels or 15.3 per acre in 1916, and 3,439,949 bushels in 1915. Annual average 16.1.

Barley.—551,296 acres, 19,363,320 bushels or 35.1 per acre, as against 527,886 acres, 12,388,969 bushels or 23.5 per acre in 1916, and 19,983,129 bushels in 1915. Annual average 28.0.

Oats.—2,763,355 acres, 118,949,213 bushels or 43.0 per acre as against 2,680,762 acres, 71,297,528 bushels or 26.6 per acre in 1916, and 120,217,952 bushels in 1915. Annual average 35.6.

Rye.—133,077 acres, 2,305,601 bushels or 17.3 per acre as against 148,738 acres, 2,354,410 bushels or 15.8 per acre in 1916 and 3,210,512 bushels in 1915. Annual average 16.5.

Peas.—90,322 acres, 1,635,963 bushels or 18.1 per acre as against 95,542 acres, 1,243,979 bushels or 13.4 per acre in 1916 and 2,043,049 bushels in 1915. Annual average 19.1.

Beans.—114,785 acres, 1,535,683 bushels or 13.4 per acre as against 53,909 acres, 583,105 bushels or 10.8 per acre in 1916 and 882,819 bushels in 1915. Annual average 16.7.

Hay and Clover (not including alfalfa).—3,358,579 acres, 6,156,340 tons or 1.833 per acre as against 3,294,419 acres, 6,739,259 tons or 2.046 per acre in 1916, and 3,825,026 tons in 1915. Annual average 1.45.

The acreages in other crops for which no estimates as to yield have been made at this date are as follows: Buckwheat, 153,457 against 229,205 in 1916; corn for husking, 258,935 against 258,332; corn for silo, 511,329 against 439,411; potatoes, 146,481 against 139,523; mangels, 49,148 against 42,793; sugar beets, 22,039 against 22,482; carrots, 2,920 against 2,391; turnips, 93,034 against 91,670; mixed grains, 515,593 against 485,986; alfalfa, 189,109 against 177,565.

There are 3,509,945 acres of cleared land devoted to pasture; 232,679 in summer-fallow against 331,736 in 1916; 280,326 in orchard; 21,964 in small fruits; 9,882 in vineyard; 58,297 in farm gardens; 37,732 in rape; 5,242 in tobacco; 7,372 in flax.

**Questions and Answers.
Veterinary.**

Stiff Cow.

Cow calved last spring and retained the afterbirth. My veterinarian removed it. She milks fairly well and looks well. She is on good pasture, but has been stiff ever since calving, as though she had rheumatism. R. M.

Ans.—Your diagnosis is probably correct. Avoid exposure to wet or cold. Keep bowels moving freely, by administering a pint of raw linseed oil occasionally if necessary. Give her 2 drams salicylic acid 3 times daily. Bathe the joints of the affected limbs well 3 or 4 times daily, and after bathing rub well with hot camphorated oil. V.

Baron Rhondda, Food Controller of Great Britain, is considering the fixation of the price of a 3½-pound loaf of war bread at 8 cents. This compares with 11 cents for 1½-pound loaves in many Canadian cities. That is, in Britain, bread from Canadian wheat or flour after travelling 3,000 miles at high rates, will sell at 5 cents a pound, while in Canada the price is 7 and 8 cents and often more, and not a submarine in sight. This is a situation for which the Canadian Food Controller is seeking the remedy, and if necessary he will fix prices. But first he must be sure of all his facts. In any event, however, Canadians must eat less bread and substitute other foods, for the whole world is short of bread.

Louden Barn Equipments
SAVE TIME—Save Labor—Save Expense
Our new catalogue describes every kind of device for money-making and labor-saving on farms. Write to:
LOUDEN MACHINERY CO.
Dept. 1, Guelph, Ont.

Don't Let Your Money Rot
in the ground in the shape of wooden posts. Use Standard Steel Tube Fence Posts. Write for prices.
STANDARD STEEL TUBE & FENCE CO.,
Limited
Woodstock, Ontario.

5% INSTEAD OF 3%
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.

When writing please mention this paper.

The Hawthorne Shorthorns and Leicesters

Heifers and cows with calves, and a few bulls. 1 extra good shearing ram, and ram lambs, and several real good grade ewes. Yorkshire sows.
Allan B. Mann R. R. 4, Peterborough, Ont.

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.

SENSATIONAL OFFERING IN 30-LB. BULLS

We have at present several 30-lb. bred bulls, all nearing serviceable age, that must go out to several of the country's best herds in the near future. They are sired by one of the three sires used in the herd during the past year. Pontiac Korndyke of Het Loo, Avondale Pontiac Echo, or King Segis Alcartra Spofford. Our herd contains more 30-lb. cows than any other herd of equal size in the Dominion. Extended pedigrees mailed on request.
ROYCROFT FARM W. L. SHAW, PROP., NEWMARKET, ONT.

KING SEGIS WALKER'S

Oldest daughter with first calf made 456 lbs. milk and 24 lbs. butter; with her second calf, 560 lbs. milk and 29¾ lbs. butter. His first granddaughter, through his son, at 2 yrs. 2 months, made 440 lbs. milk and 23½ lbs. butter. Young stock for sale.
A. A. FAREWELL, OSHAWA, ONTARIO.

Statistics.

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Scratches and Stocking

—Are prevalent in cold weather irregular work and overfed in- cuses both. A system tonic and blood purifier, such as

FLEMING'S TONIC HEAVE REMEDY will prevent these troubles and when developed, with Fleming's Veterinary Healing Oil will quickly cure them. Per box, \$1.

Fuller information in Fleming's Vest Pocket Veterinary Adviser Write us for a Free Copy

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OMEGA MILKING MACHINES

Efficient, Hygienic



The pail and teat-cups are suspended from the cow's back. The teat-cups cannot fall to the floor and suck up manure or straw. The Omega has no rubber tubes. The Omega milks as fast and as clean as is possible by hand. Leading dairymen in Canada, U. S. A. and Europe are using the OMEGA. It's a perfect milker. WRITE TO-DAY for free booklet, describing the special features of the Omega. C. Richardson & Co., St. Mary's, Ontario

FEEDS

Cotton Seed Meal	Linseed Oil Cake Meal
Corn Oil Cake Meal	Gluten Meal
Digestive Tankage	Distillers' Grains
Brans	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.

Keep Your Live Stock Healthy

and in prime condition by supplementing the feed with

LINSEED OIL CAKE "Maple Leaf Brand"

With a trial ton order, we will send you free, "The Veterinarian," a valuable book about the diseases of cattle.

THE CANADA LINSEED OIL MILLS, Ltd. Toronto and Montreal

Pure Cottonseed Meal

"Dixie Brand".....	41% protein, fat 5.50%
"Forfat Brand".....	38.55% protein, fat 5.00%
"Danish Brand".....	36% protein, fat 5.00%
"Cremo Brand".....	20 to 25% protein, fat 5.00%

Mills conveniently located in every cotton-growing State in the South.

Prices on application in car lots or less. Fred. Smith, 32 and 34 Front St. W., Toronto

Manor Farm Holsteins

Those wishing a young sire from high-record dams and sired by King Segis Pontiac Poach, will do well to write for pedigree and prices before buying elsewhere.

SATISFACTION GUARANTEED Gordon S. Gooderham CLARKSON, ONTARIO

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. RIDGEDALE HOLSTEINS offers three young bulls (one ready for service) at special prices. One is by Pontiac Hengerveld Pieterje, and the others are by King Segis Pontiac Duplicate. Can also supply a few females. R. W. Walker & Son, Port Perry, R. R. 4, Manchester, G.T.R., Myrtle, C.P.R.

Fall Plowing For Burley.

Experiments conducted on the Harrow Tobacco Station, for the past two years, in which fall plowing was compared with spring plowing have proven quite conclusively that fall plowing is not only a good practice but is profitable.

Plots which were fall plowed have, in every instance, retained the moisture for a much longer period of time and given heavier crops of tobacco which suffered less from drought than plots on land of the same character which were spring plowed.

Even on land of a fairly sandy nature this has been the case; and it has been found that even though this sandy loam runs together during the winter it can easily be prepared for tobacco, in the spring, by discing it thoroughly.

Fall plowing is not only of value as a means of conserving moisture and improving the mechanical condition of the soil, but also as a means of combating the insect pests of tobacco. Plowing after September 20th has been found very helpful in destroying the larvae of cut worms and the tobacco horn worm.—D. D. DIGGES, Supt. Harrow Station.

Gossip.

Robsons' Shorthorns and Lincolns.

Attention is directed to the advertisement appearing in these columns of Shorthorn cattle and Lincoln sheep, the property of R. S. Robson & Son, Denfield. This old firm of well-known stock breeders are offering some attractive stock. Particularly will our readers be interested in the new importation of Lincoln sheep which should have arrived in July but which is expected home from quarantine some time this month. They comprise sixty head, including forty-two yearling ewes and eighteen yearling rams from the best flocks of the Old Land. Breeders requiring something extra in rams should see this lot. Messrs. Robson report trade brisk and business good. Sales have been numerous. They have a large number of home-bred rams and ewes and ram lambs to offer from Dean and Howard rams. The Shorthorn herd will bear close inspection and some of the best families are included. Look up the advertisement and get in touch with R. S. Robson & Son, Denfield.

Till the Soil and Feed the Soldier.

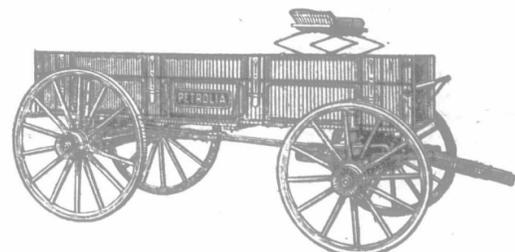
EDITOR "THE FARMER'S ADVOCATE":

While the soldier is digging the trench it is the farmer's duty to turn the furrow, and turn it well. The soldier is not merely doing his work, but is doing it with skill and in accordance with the rules of advanced art and science. He is not a bungler, but works with mathematical precision. As the result of a few months' drill he becomes a trained man and an adept in new, strenuous and dangerous situations. Should not the farmer, with his years or life-time of experience and educative opportunities, be an adept in his peaceful pursuits, far removed from the dangers and frightfulness in the farmer's work mean "increased production," and increased production is the urgent and vital need of the soldier in the trench, of the farmer himself and of the world—as the most effective means of warding off the darkening spectre of starvation.

The need is of the hour. The time for action is now. Let us keep the plow, the hoe and the cultivator going. The call is for strenuous, earnest, productive work along all lines. There is no time for dallying or half-hearted, indifferent effort. Prepare the wheat field with thoroughness. Plow, harrow, roll, fertilize, drain, and sow with the best seed. Sow in time to secure good autumn growth. Have fine, mellow surface seed-bed, with compact substratum to prevent winter "heaving."

Kent Co., Ont. W. J. WAY.

The statistical reports show that the campaign of the kitchen garden has been extensively carried out in the United States. Two hundred and twenty-two per cent. more were planted in 1917 than in any previous year; that the area planted amounts to 1,175,000 acres more and that this garden truck means \$350,000,000 worth of foodstuffs.



Petrolia Wagons for Sale

WHEN a man buys a farm wagon, he expects service from it. He will get service if he buys a Petrolia wagon. Take the line all through, Petrolia wagons can be depended upon to give a full dollar's worth of service for every dollar they cost.

The construction of the wagon is responsible for the splendid Petrolia reputation. First, the good material—air dried lumber, tough, strong steel and iron, and high grade paint. Then, the design, right for Eastern hauling conditions. Last, the good Canadian workmanship that builds the material according to the design, turning out a well finished product for the use of Eastern farmers. There are many operations in the making of a wagon which the buyer seldom hears or knows—the soaking of the wheels in linseed oil, the special seasoning given to hubs, the setting of tires so they will stay in place and without charring or injuring the felloe—these and others are regular Petrolia features that make the wagon a profitable one to buy.

Have you seen our rubber bumper skeins, or our block reach, short turn gear? Take a look at this wagon the next time you get a chance, or write to us at the nearest branch house for full details. The Petrolia is a wagon worth buying.

International Harvester Company of Canada, Limited

BRANCH HOUSES

WEST—Brandon, Man., Calgary, Alta., Edmonton, Alta., Estevan, Sask., Lethbridge, Alta., N. Battleford, Sask., Regina, Sask., Saskatoon, Sask., Winnipeg, Man., Yorkton, Sask.

EAST—Hamilton, Ont., London, Ont., Montreal, Que., Ottawa, Ont., Quebec, Que., St. John, N. B.

CHOICE YOUNG HOLSTEIN SIRE

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 Natoye, 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, Eglington, Ontario; or Phone Toronto, Belmont 184, Adelaide 3906

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.

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.

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.

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Sale to take place on the farm, two miles north of Massawippi, 3 1/2 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.

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Fall Management of Bees.

EDITOR "THE FARMER'S ADVOCATE":

As the fall is approaching one must be careful that all colonies have a laying queen. It is essential that the colony be composed of a large force of young bees to go into winter quarters, as bees raised during the fore part of summer are sure to die before half the winter is over. A young queen will lay longer in the fall than an old one, consequently it is a good plan to requeen during the summer. Three things are especially necessary to winter bees successfully. The first is as stated, a large force of young bees; second, plenty of stores of the proper quality, and third, satisfactory winter quarters.

Stimulative feeding helps greatly to supply the first essential requirements. It is important, however, that the feeding go on slowly and without intermission. When feeding to stimulate one must bear in mind that he wants a large amount of brood, not stores, and, therefore, feeding has to go on slowly, but never should the feeder become empty as this discourages the bees and they slacken down brood rearing.

A tin pepper box or something of the kind with two or three holes not larger than to admit a common pin (if feeding thin syrup sometimes one pin-hole is enough) punched in the bottom and set on a block of wood with the perforations down. This block should be as thick as to fit into the entrance, and in the centre of the top a one-and-a-half-inch hole is to be bored in about three-eighths of an inch deep; the end is then mortised out and a cover fitted so that when the feeder is in place no bee can get at the honey in the feeder except from the inside of the hive. A piece of tin placed where the honey or syrup drips out of the box is sometimes advisable. After the feeder is in place enough of the entrance should be left open to prevent the bees from clustering out for lack of ventilation. Feeding is only necessary when no honey is in the fields. Fortunately Ontario has generally a fair fall flow from buckwheat and goldenrod.

Plenty of stores are easily supplied in the form of good honey or syrup of granulated sugar (two parts sugar to one of water). From thirty to thirty-five pounds of stores should carry a fair-sized colony through the winter. It is also essential that if combs are taken out towards fall that they be replaced in the same order so as not to destroy the winter nest which bees form towards fall. This winter nest is composed of a sphere of empty cells in the centre of the hive a little towards the entrance. This nature has evidently designed to economize animal heat during winter. If meddled with late in the fall so that the bees don't re-form the nest it is a decided disadvantage.

For the amateur it is best to winter bees out of doors in quadruple wintering cases. Not every cellar is suitable for wintering bees. When wintering out of doors all that is necessary is to have packing, composed of dry leaves, planer shavings or chaff, six inches or so all around the hives, underneath and on the top. A bridge is so placed as to form a tunnel from the hive entrance to the entrance in the outside case. If sheltered from the wind and the entrance contracted to about three square inches the bees are in as good or better place than in many a cellar. A block revolving on a screw is sometimes placed so as to easily contract the entrance still more during a bad storm. **Waterloo Co., Ont. BEEKEEPER.**

Questions and Answers. Veterinary.

Fatality in Cow.

One evening I noticed my cow's throat was slightly swollen, she would not eat and gave no milk. Her tongue and mouth appeared to be paralyzed. The swelling increased, extended to her breast, and in two days she died of suffocation. Was this black leg or anthrax, and would it be wise to have the herd vaccinated?

J. T.

Ans.—The symptoms do not indicate either black leg or anthrax. Black leg attacks young animals only; very seldom an animal over two and one half years old. The trouble was a form of erysipelas usually due to some undetermined alteration in the blood. Vaccination would have no action in preventing it. **V.**

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**Questions and Answers.
Miscellaneous.**

Hydraulic Ram.

How much fall would I require to raise water 25 or 30 feet with an hydraulic ram? What size should the feed pipe be, and what size the discharge pipe?

S. O.

Ans.—As little as 18 inches of fall will be sufficient with some hydraulic rams, but when raising water to 30 feet they would deliver a very small quantity of the water flowing through them, the remainder being lost through the waste valve. A fall of 3 feet would raise a fair quantity of the water; at 6 feet it is estimated that one-fifth the supply would be delivered. For a medium-sized ram the feed pipe should be about 1½ inches in diameter and five times as long as the height of the supply. One-half inch piping would be large enough for the discharge.

Hired Man Quitting.

I hired with my boss for a year from March 1st for \$200. I have been wanting to enlist all summer but didn't like to leave in harvest, for it is not very considerate to leave in the busiest part of year, but would like to know how much money I should get if I left say the first of November. Can a person leave and collect wages before his time is up if he wants to enlist?

S. J. P.

Ans.—Without knowing all circumstances it is difficult for us to say what the correct amount should be. Of course, according to contract you cannot collect until your year is up, but in view of the fact that you desire to enlist and are willing to help the farmer through with the harvest first you should be able to come to some arrangement between yourselves. Seeing that you will have worked the most important part of the season we should say that you should have full wages at the rate of hiring for the time served, but this is a matter to be amicably settled between yourselves.

Calves Chewing Wood.

I have two calves that chew wood. What is the cause and cure? These calves will stand and chew at their manger or wall for an hour at a time. They are fed a warm drink made of scalded middlings and separated milk, also some whole oats and bran mixed together, besides good hay. We tried feeding them bone meal in their drink, but it had no effect. A yearling heifer was much the same way last year and she gradually failed in flesh.

J. R.

Ans.—Cattle chewing wood is an indication that there is lack of phosphates in the system. It is a habit oftentimes caused by a deficiency of mineral matter in the food. Give the calves plenty of bran and good clover hay and a little salt every day. The bone meal should help to bring up the mineral part of the ration. Administering a mixture of one dram each sulphate of iron, nux vomica, gentian and 2 drams of phosphate of lime three times daily may help.

Weights of Grains.

Do you publish a notebook containing the weights of the different kinds of grains, vegetables, etc., per bushel?

W. A.

Ans.—We do not publish a book containing this information, but the following are the Dominion official weights per bushel of some of the grains, grasses and clovers:

	Pounds per bushel
Wheat.....	60
Oats.....	34
Barley.....	48
Corn.....	56
Buckwheat.....	48
Flax.....	56
Peas.....	60
Rye.....	56
Red Clover.....	60
Alfalfa.....	60
Alsike.....	60
Timothy.....	48
Turnips.....	50
Carrots.....	50
Onions.....	50
Potatoes.....	60

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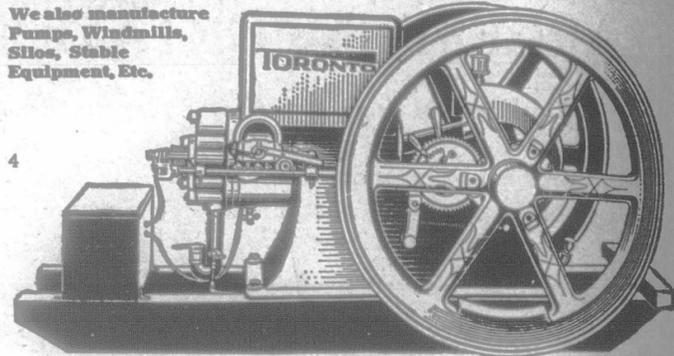
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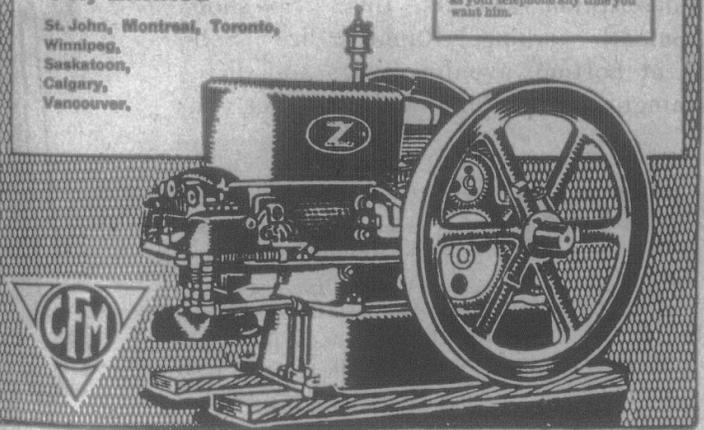
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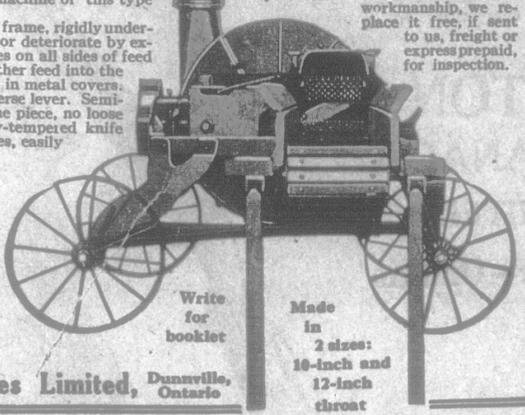
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